

**GREEN
CLIMATE
FUND**

Meeting of the Board
21 – 24 October 2024
Songdo, Incheon, Republic of Korea
Provisional agenda item 10

GCF/B.40/02/Add.14/Rev.01

19 October 2024

Consideration of funding proposals – Addendum XIV

Funding proposal package for FP252

Summary

This addendum contains the following six parts:

- a) A funding proposal summary titled “Acumen Resilient Agriculture Fund II” submitted by the Acumen Fund, Inc.;
- b) No-objection letter(s) issued by the national designated authority(ies) or focal point(s);
- c) Environmental and Social report(s) disclosure;
- d) Independent Technical Advisory Panel’s assessment;
- e) Response from the accredited entity to the independent Technical Advisory Panel’s assessment; and
- f) Gender documentation of the funding proposal.

These documents are presented as submitted by the accredited entity and the national designated authority(ies) or focal point(s), respectively. Pursuant to the Comprehensive Information Disclosure Policy of the Fund, the funding proposal titled “Acumen Resilient Agriculture Fund II” submitted by the Acumen Fund, Inc. is being circulated on a limited distribution basis only to Board Members and Alternate Board Members to ensure confidentiality of certain proprietary, legally privileged or commercially sensitive information of the entity.

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Funding Proposal

**Project/Programme
title:**

Acumen Resilient Agriculture Fund II

Country(ies):

Uganda, Ghana, Nigeria, Cote d'Ivoire, Egypt and Morocco

Accredited Entity:

Acumen Fund Inc

Date of first submission:

[2024/06/11]

Date of current submission

[2024/08/05]

Version number

[V.005]

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Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the [GCF Information Disclosure Policy](#), project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]”

A. PROJECT/PROGRAMME SUMMARY				
A.1. Project or programme	Programme	A.2. Public or private sector	Private	
A.3. Request for Proposals (RFP)	<p>If the funding proposal is being submitted in response to a specific GCF Request for Proposals, indicate which RFP it is targeted for. Please note that there is a separate template for the Simplified Approval Process and REDD+.</p> <p><u>Not applicable</u></p>			
A.4. Result area(s)	<p>Check the applicable GCF result area(s) that the <i>overall</i> proposed project/programme targets below. For each checked result area(s), indicate the estimated percentage of GCF and Co-financers' contribution devoted to it. The total of the percentages when summed should be 100% for GCF and Co-financers' contribution respectively.</p>			
		GCF contribution	Co-financers' contribution¹	
	Mitigation total	<u>Enter number</u> %	<u>Enter number</u> %	
	<input type="checkbox"/> Energy generation and access	<u>Enter number</u> %	<u>Enter number</u> %	
	<input type="checkbox"/> Low-emission transport	<u>Enter number</u> %	<u>Enter number</u> %	
	<input type="checkbox"/> Buildings, cities, industries and appliances	<u>Enter number</u> %	<u>Enter number</u> %	
	<input type="checkbox"/> Forestry and land use	<u>Enter number</u> %	<u>Enter number</u> %	
	Adaptation total	100 %	100 %	
	<input checked="" type="checkbox"/> Most vulnerable people and communities	75 %	75 %	
	<input checked="" type="checkbox"/> Health and well-being, and food and water security	25 %	25 %	
<input type="checkbox"/> Infrastructure and built environment	<u>Enter number</u> %	<u>Enter number</u> %		
<input type="checkbox"/> Ecosystems and ecosystem services	<u>Enter number</u> %	<u>Enter number</u> %		
A.5. Expected mitigation outcome <i>(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)</i>	<p>Indicate greenhouse gas (GHG) emission reductions or removals in tCO₂eq over total lifespan of the project/programme²</p>	A.6. Expected adaptation outcome <i>(Core indicator 2: direct and indirect beneficiaries reached)</i>	<p>19,850,870 direct and indirect adaptation beneficiaries</p>	
			<p>4,051,198 direct beneficiaries</p>	<p>15,799,672 indirect beneficiaries</p>
			<p>0.5%</p>	<p>2.2%</p>
A.7. Total financing (GCF + co-finance³)	USD 132MM	A.9. Project size	Medium (Upto USD 250 million)	
A.8. Total GCF funding requested	USD <u>34MM</u>			

¹ Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

² The total lifespan of the project/programme is defined as the maximum number of years over which the outcomes of the investment are expected to be effective. This is different from the project/programme implementation period.

³ Refer to the Policy of Co-financing of the GCF.

<p>A.10. Financial instrument(s) requested for the GCF funding</p>	<p><i>Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.</i></p> <p> <input checked="" type="checkbox"/> Grant <u>USD 4MM</u> <input checked="" type="checkbox"/> Equity <u>USD 30MM</u> <input type="checkbox"/> Loan <u>Enter number</u> <input type="checkbox"/> Results-based payment <u>Enter number</u> <input type="checkbox"/> Guarantee <u>Enter number</u> </p>		
<p>A.11. Implementation period</p>	<p>12 years (10 years plus possibility for two 1-year extensions)</p> <p>Investment period – six years from initial close</p>	<p>A.12. Total lifespan</p>	<p>12 years maximum fund life, with average holding period of 6 years per investment. The adaptation benefits are expected to continue even following ARAF's exits.</p>
<p>A.13. Expected date of AE internal approval</p>	<p>October 3, 2024</p>	<p>A.14. ESS category</p>	<p><i>Refer to the AE's safeguard policy and GCF ESS Standards to assess your FP category.</i></p> <p>I-2</p>
<p>A.15. Has this FP been submitted as a CN before?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A.16. Has Readiness or PPF support been used to prepare this FP?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p>A.17. Is this FP included in the entity work programme?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A.18. Is this FP included in the country programme?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p>A.19. Complementarity and coherence</p>	<p><i>Does the project/programme complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1.</i></p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>		
<p>A.20. Executing Entity information</p>	<p>"Acumen Capital Partners LLC" or "the Manager", a limited liability company formed under the laws of the State of Delaware.</p> <p>"Acumen Resilient Agriculture Capital Investments LLC" or "the General Partner", a Delaware limited liability company.</p> <p>"Acumen Resilient Agriculture Fund II, LP" or "ARAF II" or "the Fund", an Ontario Limited Partnership.</p>		
<p>A.21. Executive summary (max. 750 words, approximately 1.5 pages)</p>			
<p><u>Climate change problem</u></p> <p>1. Smallholder farmers in Africa are more vulnerable to climate change than ever as temperature increases, extreme weather events, droughts, and changes in rainfall patterns threaten their livelihoods and food security while they have little resources to combat the impacts. According to the IPCC, climate change has caused agricultural productivity growth in Africa to fall by 34% since 1961, a larger decline than any other region. As agriculture employs</p>			

55-62% of the workforce in Sub-Saharan Africa and 95% of cropland is rainfed⁴, African farmers are disproportionately vulnerable to climate change. Rising temperature and erratic rainfall patterns will cause more frequent and intense droughts and floodings, which will negatively impact crop yields. It will also create ideal breeding grounds for pests and diseases which will further reduce crop yields. The International Monetary Fund forecasts that crop yields in sub-Saharan Africa will decline by 5 to 17 percent by 2050. Insect pests caused at least 30% weight losses in grain storage in Sub Saharan Africa.

2. Exacerbating these challenges, smallholder farmers often have limited access to resources like fertilizers, improved seeds, and irrigation systems. This makes it difficult for them to adapt to changing weather patterns or invest in new technologies that might help them cope with drought or heat stress. Only 1.7 percent of global climate finance goes to projects with smallholder farmers, who produce around 80 percent of food in Africa⁵.
3. Crop failures and declining yields will significantly reduce farmers' income, pushing them deeper into poverty. Food insecurity and poverty can lead to social unrest and even mass migration from rural areas to urban centers. For example, droughts in recent years have caused widespread food insecurity in East African countries like Ethiopia and Kenya⁶ while floods have disrupted agricultural production in West African countries like Nigeria and Ghana. Yale Climate Connections finds that of the 30 deadliest climate events ever in Africa, six happened in 2022 and 2023⁷.

The proposed intervention

4. Acumen Resilient Agriculture Fund II (ARAF II or the Fund) is an adaptation-focused blended-finance venture capital fund that seeks to improve the climate resilience of smallholder farmers and the agriculture value chain, towards promoting increased productivity and food security in Africa. ARAF II, as the successor fund to ARAF I, aims to continue executing ARAF I's impactful investment strategy of identifying and scaling ecosystem enabling companies, providing bundled solutions through innovative business models that improve farmers' access to increased productivity enablers, as well as their ability to adapt to and absorb, the impacts of climate change, leading to improved livelihoods for smallholder farmers and their families.
5. ARAF II seeks to raise US\$120MM in equity commitments from development finance institutions (DFIs), foundations, family offices and High Net Worth Individuals (HWNI) to deploy into 18-20 companies across 6 select East, West and North African countries. ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries.⁸ ARAF II has developed an impressive advance pipeline of dozens of companies across these geographies.
6. ARAF I has demonstrated the attractiveness of investing in African agribusinesses as a path towards improving the climate resilience of smallholder farmers, thereby improving the resilience of the agriculture value-chain, and promoting food security. ARAF II seeks to continue implementing the same strategy and to invest across the following themes:
 - **Aggregator Platforms:** agribusinesses that provide bundled solutions including climate resilient inputs and/or affordable credit bundled with services such as extension services and trainings, and off-take agreements to provide income certainty.
 - **Digital Platforms:** Information & Communication Technology (ICT) agribusinesses, leveraging the efficiency, scale, and precision of digital tools to provide bundled solutions tailored to farmer needs. For instance, this could be an online marketplace that connects farmers with input providers. The digital platform could also offer extension support like training videos, weather forecast information or market prices information to improve farmer productivity and mitigate weather impact.

⁴ Trisos, C.H., I.O. Adelekan, E. Totin, A. Ayanlade, J. Efitre, A. Gemed, K. Kalaba, C. Lennard, C. Masao, Y. Mgaya, G. Ngaruiya, D. Olago, N.P. Simpson, and S. Zakieldean, 2022: Africa. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösckke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1285–1455, doi:10.1017/9781009325844.011

⁵ Washington Post (2023) <https://www.washingtonpost.com/climate-solutions/2023/12/02/cop28-africa-agriculture-climate-change/>

⁶ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁷ Washington Post (2023) <https://www.washingtonpost.com/climate-solutions/2023/12/02/cop28-africa-agriculture-climate-change/>

⁸ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

- **Innovative Financial Solutions:** Provide farmers with access to innovative financial solutions (i.e., affordable credit, saving products, insurance solutions, etc.) enabling farmers to diversify their income base by investing in additional productive assets and making it affordable for them to buy farm inputs.
7. ARAF II intends to focus on investing in, and scaling, early to early-growth stage agribusinesses. The moderately larger initial ticket size is driven by experience from ARAF I. There has been a gradual evolution of the nature of businesses at the Pre-Series A round, with several of ARAF I's more recent investments at that stage delivering revenues at the US2MM+ mark and seeking to raise larger sized Pre-Series A rounds. In ARAF I, the team identified companies that were aligned with the ARAF mission and would have a direct impact on smallholder farmers but needed larger investments. Increasing the ticket size can enable ARAF II to invest in such companies, particularly as the fund expands its geography into North Africa, where the deals are anticipated to be larger given the size, nature, and maturity of both the upstream and downstream sectors in these markets.
8. ARAF II aspires to scale the gains achieved by ARAF I, as follows:
- ARAF I was sponsored by Acumen and anchored by the Green Climate Fund, the Fund reached first close in 2019 and started investing in the same year. Over the last 5 years, ARAF I has completed 13 investments across its investment geographies of Kenya, Uganda, Tanzania, Nigeria, and Ghana.
 - As at Dec-2023, ARAF I portfolio companies have a combined total of 3,748 employees. As of the same date, ARAF I's portfolio companies have increased their employment by 90% post ARAF I's initial investment. Most of the increased employment has been within ARAF's investment region, contributing to overall macro-economic outcomes, local institutional knowledge and strengthening local supply and distribution channels required for scaling sustainable businesses.
 - ARAF I's investments have already generated strong impact beyond financial returns, with farmers reporting significant improvements in various aspects of their livelihoods. ARAF I's portfolio companies have reached 1.13MM farmers, c. 40% of whom are female farmers, impacting 5.6MM people, exceeding its impact hurdle of 1MM farmers, and on course to meet, and exceed, its impact target of 2MM farmers reached and 10MM lives impacted over the next 6-8 years. A deeper, more qualitative, analysis of the impact of ARAF I portfolio companies, obtained through surveys of farmers engaging with ARAF portfolio companies⁹, indicates that of the farmers surveyed:
 - 80% reported increases in farm productivity,
 - 80% reported income increases and
 - 85% reported improved quality of life.

Additionally, the interventions undertaken by ARAF portfolio companies have strengthened the climate resilience of farmers as demonstrated by the 45% of the farmers who were assessed as resilient (up from a baseline of 38%), implying an increased ability to cope with the growing challenges posed by climate hazards, as a direct result of having access to quality inputs, financial products (credit and insurance), agronomical support, infrastructure (water and mechanization), and premium markets. The interaction of these elements within a bundled product for farmers, work in concert to improve farmer productivity, incomes, savings, (re)-investments into their land and diversification of their income. ARAF I has firsthand experience of portfolio companies actualizing this expectation. SunCulture, which provides solar powered irrigation systems to smallholder farmers on credit, has helped their clients 3x their crop yield and increase their cows' milk production by 50%. Both Uzima Chicken and Flow Equity Africa Ventures, which distribute sturdy, disease resistant, extremely productive, foraging day-old-chicks and 6-week-old birds to smallholder farmers, have helped farmers increase and diversify their incomes, while reducing income volatility.

Climate benefits

9. Research indicates that smallholder farmers in Africa are adapting to climate change by introducing new crop varieties; shifting planting seasons; diversifying crop production; introducing crop rotation; storing and utilizing crop residue as emergency feed, as well as emergency seed banking; planting early maturing crop varieties; implementing soil and water conservation practices; and planting fruit and fodder trees, amongst other actions¹⁰.

⁹ Lean Data survey conducted by 60 decibels

¹⁰ Magesa, Bahati A, et al. "Understanding the farmers' choices and adoption of adaptation strategies, and plans to climate change impact in Africa: A systematic review,". Climate Services, vol 30, 2023. Accessed 12 June 2024.

Various factors, including educational level, farm size, gender of the head of the household, size of the household, etc. impacted smallholder farmers' adoption of adaptation practices.

- The results of studies of smallholder farmers in the Central Rift Valley in Ethiopia showed that increases in household income, access to input and output markets, access to climate information, and access to extension services had a positive association with the adoption of climate change adaptation strategies^{11,12}
- Similar results were observed in Ghana, where studies showed that smallholder farmers' primary motivation for implementing adaptation practices was to improve financial security through increased yields and income. Secure land tenure systems, education around the effects of climate change, access to sustainable agricultural technologies, access to credit, and access to weather and climate information were identified as the key enablers for farmer adoption of climate adaptation practices. Lastly, limited government support with farm inputs, inadequate access to agricultural credit, high cost of improved varieties and lack of knowledge and education on climate smart agriculture practices were shown to be the main barriers limiting farmer adoption of climate adaptation practices¹³.

10. ARAF expects that by supporting smallholder farmers with integrated packages of improved inputs, finance, training and extension services, information, and markets, farmers will increase yields, decrease yield volatility, elevate incomes, and reduce income volatility throughout the year. This outcome enhances farmers' financial security, enabling them to plan their spending and consumption more effectively, fostering savings and asset-building to mitigate the impact of abrupt shocks and climate-related hazards. Through these investments, ARAF II aims to provide smallholder farmers with a combination of:

- access to improved inputs, including, climate resilient seeds
- access to financing, including embedded finance and innovative savings products and credit models that enable farmers make ongoing improvements to their farmland and investments to their productive capacity
- timely access to climate and weather-related information to enable proper planning and decision making for production, in terms of determining what crop to plant, when to plant, where to plant and/or whether to plant
- access to insurance products, including weather, livestock, and yield insurance, to improve their ability to absorb climate shocks
- access to climate-smart agricultural knowledge and extension services to improve their adoption of adaptation practices
- access to infrastructure, including irrigation and mechanization, to improve productivity and
- access to premium markets to improve their income and profitability, which allows them build savings, make on-farm investments (soil testing, irrigation), purchase better inputs and crop insurance.

11. The interventions facilitated by ARAF II's portfolio companies are expected to result in:

- increased adoption of climate smart agriculture amongst farmers, which positively impacts their ability to adapt to climate change
- enhanced agricultural productivity through investments in soil testing, high-quality inputs, and water management solutions
- improved ability to manage weather-related shocks, including drought, floods, and pestilence.
- reduced post-harvest losses due to direct links to processors and market connections.
- increased income and productivity for smallholder farmers
- increased investment in agricultural productivity by farmers given increased income, including by expanding area under cultivation and protecting soil quality

¹¹ Belay, A., Recha, J.W., Woldeamanuel, T. *et al.* Smallholder farmers' adaptation to climate change and determinants of their adaptation decisions in the Central Rift Valley of Ethiopia. *Agric & Food Secur* 6, 24 (2017). <https://doi.org/10.1186/s40066-017-0100->

¹² ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

¹³ Antwi-Agyei, Philip, et al. "Motivations, enablers and barriers to the adoption of climate-smart agricultural practices by smallholder farmers: Evidence from the transitional and savannah agroecological zones of Ghana". *Regional Sustainability*, vol 2, no. 4th ed., 2021. pp. 375-386., Accessed 12 June 2024.

- efficient land management practices such as contouring to prevent erosion
- decreasing dependence on weather and a greater ability to manage periods of drought and rainfall variability
- reduction in post-harvest loss due to direct links to processors and connection to markets
- ARAF II seeks to impact 4 million smallholder farmers and 16 million lives by making them more resilient to climate change by investing in companies that facilitate their adoption of climate-smart agronomy practices, access to climate-smart innovations, and utilization of climate-smart safeguards, including early warning systems and insurance, the latter being essential in the event of severe climate incidences¹⁴.

¹⁴ Magesa, Bahati A, et al. "Understanding the farmers' choices and adoption of adaptation strategies, and plans to climate change impact in Africa: A systematic review,". *Climate Services*, vol 30, 2023. Accessed 12 June 2024.

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

CLIMATE CONTEXT OF ARAF II'S PROPOSED COUNTRIES

1. Globally, scientists and researchers have recorded rising temperatures and increases in the atmospheric concentration of CO₂, CH₄ and other gases. It is widely accepted that these phenomena are partly due to human activities, and there is the expectation that unabated, temperatures will continue to rise and pose catastrophic results for life on the planet, with far reaching social, economic and political impacts. The agricultural sector is one of the sectors that is most vulnerable to climate change given its dependence on climatic conditions. Africa, and other societies with a large concentration of the least developed countries and poor communities, are expected to be disproportionately impacted by climate change with fewer adaptation resources, despite having contributed the least to global emissions.
2. Agriculture is important for the growth and socio-economic development across Africa as the sector employs 65% - 70% of Africa's labor force and contributes 30% - 40% to GDP on average.¹⁵ However, productivity remains low compared to the rest of the world and including other developing regions in Latin America and Asia, due in part to low levels of irrigation and low utilization of modern inputs. African farming systems are very dependent on weather, and particularly on the rain, with irrigation covering only 5% of cultivated land on the continent.¹⁶
3. Temperature and precipitation are the two primary climatic indicators impacting agriculture in Africa, particularly crop production. East and West Africa are expected to experience an increase in the frequency and intensity of both drought and flooding¹⁷. The Center for Research on the Epidemiology of Disasters (CRED), relying on data from EM-DAT, estimated that drought and floods accounted for 55% of the natural disasters in Africa over the period from 2002 to 2021.¹⁸ According to the IMF, Africa accounts for 33% of droughts occurring globally.¹⁹ Eastern and Western Africa are projected to be most economically vulnerable to climate change impacts. In a low-warming scenario, the median GDP/capita of these regions is expected to reduce by 9.9% up to 2050.
4. Given Africa's ecological variation, **the impacts of climate change are different across the continent's various regions and differ by country, as are climate projections and the adaptation strategies employed. We provide a summary of the climate context of ARAF II investment geography below and adaptation strategies and limitations below.**

Impact of climate change in ARAF II investment region

Morocco

5. Morocco has been experiencing more frequent and intense floods, like the ones affected the region of Ourika, the province of Guelmim, the province of Sidi Ifni, Grand Casablanca, Tangier, and the Gharb valley. The 2010 flood in Agadir Souss-Massa dealt a severe blow to agriculture, causing damage to the 2010–2011 crop year. Hundreds of hectares of cereals, vegetables, and fodder crops were devastated. The bad weather severely damaged the

¹⁵ openknowledge.worldbank.org/server/api/core/bitstreams/3cbc1ec4-8400-5971-8b0b-6ada9679cec5/content. Accessed 08 Apr. 2024.

¹⁶ Ibid

¹⁷ "Climate Change and Chronic Food Insecurity in Sub-Saharan Africa" 13 Sept. 2022, www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2022/09/13/Climate-Change-and-Chronic-Food-Insecurity-in-Sub-Saharan-Africa-522211. Accessed 08 Apr. 2024.

¹⁸ "CRED Crunch Newsletter, Issue No. 69 (December 2022) - The interplay of drought-flood extreme events in Africa over the last twenty years (2002-2021)" *World*, 22 Dec. 2022, reliefweb.int/report/world/cred-crunch-newsletter-issue-no-69-december-2022-interplay-drought-flood-extreme-events-africa-over-last-twenty-years-2002-2021. Accessed 08 Apr. 2024.

¹⁹ "Climate Change and Chronic Food Insecurity in Sub-Saharan Africa" 13 Sept. 2022, www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2022/09/13/Climate-Change-and-Chronic-Food-Insecurity-in-Sub-Saharan-Africa-522211. Accessed 08 Apr. 2024.

water supply systems of livestock farmers, the existing hydro-agricultural infrastructure, and certain rural roads and tracks in the region. Overall, the assessment of the damage caused by the 2010 floods was \$11.38 million²⁰.

6. Rainfed agriculture still accounts for 80% of agricultural lands, with highly variable crop yields that are closely correlated with precipitation levels. Rainfall shocks explain close to 37% of the variability of Morocco's total output over the medium term. This trend has been particularly apparent in recent years because a severe drought amplified the recession induced by the COVID-19 pandemic²¹. The 2020 crop year recorded a 34% decline from the 30-year average. The impact of this low-rainfall volume was exacerbated by its poor and irregular spatiotemporal distribution. There was low rainfall at all stages of grain development, and there were long dry periods (almost 40 days). The rainfall deficit affected all cereal regions. In Chaouia and Haouz, the rainfall deficit was 50% on average, while in Saïss, Pré-Rif, and the north, the deficit varied between 30 and 45%²⁰.

Egypt

7. In terms of the number of people, Egypt, Libya, Morocco and Tunisia are the most exposed countries to sea level rise. Among MENA countries, Egypt is particularly exposed with several coastal cities at risk of inundation. In the Nile Delta, between 1500 and 2600 km² of land are projected to be exposed to flooding by 2100 by a sea level rise of 0.75m (median sea level rise scenario for SSP5-85) and additional subsidence up to 0.25m, threatening around 6.3 million residents. Basin-wide economic losses are estimated at USD 5 billion, assuming a rise of sea levels by 1.26m in 2100. Seawater intrusion is projected to cause additional risks in coastal aquifers, with severe impacts on agricultural productivity²².
8. Annual temperatures in Egypt have increased at an overall rate of 0.1°C per decade between 1901 and 2013, with the rate of temperature rise in the past thirty years alone increasing to an alarming 0.53°C per decade. Surface temperatures in Egypt and elsewhere in the Nile River Basin have increased by an average of 0.16°C to 0.4°C, with El-Minya Governorate in Upper Egypt reaching temperatures of between 40°C and 44°C in recent years²³. Egypt mostly relies on the River Nile for water, which is mainly used in agriculture, municipal and industry, navigation, hydropower generation, and fisheries. The Nile originates from humid Ethiopian and East African highlands. The effects of climate variability, principally rainfall variability in the Ethiopian highlands and Lake Victoria, are shown to have caused significant inter-annual and inter-decadal variability in Nile flows with major implications for water resources in Egypt. In last 30 years, 10 droughts events with marked water flow deficit were recorded in Egypt after one month lag from their onset in the East African countries: 1972, 1979, 1982, 1983, 1984, 1986, 1987, 1990, 2002, and 2010²⁴. The increase in temperature has resulted in a decrease in crop yields, especially wheat, maize, and rice, and an increase in food prices²⁵.

Nigeria

9. With its wet coastlands in the south and arid regions in the north, Nigeria is susceptible to both floods and drought. Flood incidents have already had catastrophic impacts on the country's development, diminishing decades of

²⁰ Abdelmajid, Saidi, et al. "Climate change, agricultural policy and food security in Morocco." *Emerging Challenges to Food Production and Security in Asia, Middle East, and Africa: Climate Risks and Resource Scarcity* (2021): 171-196.

https://www.researchgate.net/publication/353543318_Climate_Change_Agricultural_Policy_and_Food_Security_in_Morocco/link/646fcf26a25e543829cca393/download

²¹ Cardarelli, Roberto, and Taline Koranchelian. "CHAPTER 7: Climate Change and Development in Morocco". *Morocco's Quest for Stronger and Inclusive Growth*. USA: International Monetary Fund, 2023. < <https://doi.org/10.5089/9798400225406.071.CH007>>. Web. 11 Jun. 2024.

²² Ali, E., W. Cramer, J. Carnicer, E. Georgopoulou, N.J.M. Hilmi, G. Le Cozannet, and P. Lionello, 2022: Cross-Chapter Paper 4: Mediterranean Region. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösckke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2233–2272, doi:10.1017/9781009325844.021.

https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_CCP4.pdf

²³ Hamzawy, Amr, Mohammad Al-Mailam, and Joy Arkeh. "Climate Change in Egypt: Opportunities and Obstacles." (2023).

https://carnegie-production-assets.s3.amazonaws.com/static/files/Al-Mailam_et_al_Egypt_Climate_2.pdf

²⁴ Bazza, M., M. Kay, and C. Knutson. "Drought characteristics and management in North Africa and the Near East." (2018): xiii+-248. <https://openknowledge.fao.org/server/api/core/bitstreams/94eb6949-ae16-4ae6-994e-860d1156d449/content>

²⁵ Ibrahim, Ehab Abdelaziz. "The impact of climate change on food security dimensions in Egypt by 2070." (2023): 139-149.

https://newmedit.iamb.it/bup/wp-content/uploads/2023/03/3-301-New-Medit-2-2023_09-The-impact-of-climate.pdf

developmental progress. Between 2012 and 2022, Nigeria experienced 3 significant flood incidents. The 2012 floods affected 7 million people across 30 of the 36 states of the federation, displaced 2.3 million people, killed 363 people, and the estimated economic impact of the flood was US\$9.5 Billion, equivalent to 2% of the country's GDP²⁶. Six years later in 2018 and most recently in 2022, the country again experienced the devastating economic impact of severe flooding. An increased severity and frequency in flooding increases the likelihood for further destruction of lives and assets. Smallholder farmers, already vulnerable to natural disasters, face increased risk as the effects of climate change compound.

Côte d'Ivoire

10. Smallholder farmers in Ivory Coast, face significant challenges due to climate change, as evidenced by recent events such as the ENSO-induced droughts of 2022-2023²⁷. These droughts substantially reduced crop production, particularly affecting staples like cocoa, thereby diminishing incomes for smallholder farmers. Climate change has also been linked to severe droughts globally, like the 2015-16 El Niño-related drought in Bahia, Brazil, which threatened cocoa production in Ivory Coast²⁸. Such events underscore the necessity for climate-resilient practices and adaptation strategies to support smallholder farmers. This drought led to successive crop failures, contributing to widespread food insecurity and economic losses for smallholder farmers²⁹. Additionally, the 2009 and 2015 El Niño events resulted in reduced cocoa yields in Ivory Coast due to drier conditions during the main cocoa harvest season³⁰. Floods and storms also pose significant threats to smallholder farmers, as demonstrated by the 2018 floods in Bouaké, which disrupted urban infrastructure and services³¹. With the projected increase in the magnitude of climate-related events under climate change, urgent action is required to implement climate-resilient practices and adaptation strategies to safeguard the livelihoods of smallholder farmers in Ivory Coast.

Senegal³²

11. Senegalese farmers have grappled with a series of significant climate events over the past decade, profoundly impacting their agricultural practices and livelihoods. Notable occurrences include the recent ENSO-induced droughts of 2022-2023, which resulted in diminished crop yields and incomes for smallholder farmers, particularly in regions susceptible to droughts³³. Moreover, recurring heavy rainfall and floods, such as the 2011 floods (Floods are the most significant climate change risk in Senegal, accounting for 41% of the average annual natural hazard occurrences during 1900-2018³⁴) in the Senegal River Valley, have caused substantial agricultural losses, exacerbating food insecurity³⁵. Prolonged droughts and heatwaves in semi-arid areas have further crippled crop yields and livestock productivity, intensifying economic hardships and food insecurity for farmers³⁶. Additionally, the escalation in bush fires and pest infestations due to climate change has inflicted significant economic and social repercussions on small-scale producers³⁷. These climate-induced challenges have translated into reduced crop

²⁶ Nigeria's First Nationally Determined Contribution – 2021 Update

²⁷ World Weather Attribution – Exploring the contribution of climate change to extreme weather events. (n.d.-c). Retrieved June 11, 2024, from <https://www.worldweatherattribution.org>

²⁸ Climate Resilience Project - Côte d'Ivoire (2019), Potsdam Institute for Climate Impact Research. Available at: https://www.pik-potsdam.de/en/institute/departments/climate-resilience/projects/project-pages/agrica/giz_climate-risk-profile-cote-d2019ivoire_en_final_2

²⁹ How climate change has altered cocoa farming in Ivory Coast", GreenBiz, available at: <https://www.greenbiz.com/article/how-climate-change-has-altered-cocoa-farming-ivory-coast>

³⁰ Revue d'économie industrielle, 2017, "Sustainability challenges of cocoa farmers in Côte d'Ivoire: empirical evidence from a case study", available at: <https://www.cairn.info/revue-journal-of-innovation-economics-2017-3-page-151.htm>

³¹ International Fund for Agricultural Development (IFAD), "Côte d'Ivoire: Making Small-Scale Farmers Resilient to Climate Change", available at: <https://www.ifad.org/en/web/knowledge/-/cote-d-ivoire-making-small-scale-farmers-resilient-to-climate-change>

³² ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

³³ World Weather Attribution – Exploring the contribution of climate change to extreme weather events. (n.d.-b). Retrieved June 11, 2024, from <https://www.worldweatherattribution.org>

³⁴ World Bank. 2021. Climate Knowledge Portal – Senegal Profile. <https://climateknowledgeportal.worldbank.org/country/senegal>

³⁵ SENEGAL_new.indd.(n.d.), https://www.climatelinks.org/sites/default/files/asset/document/senegal_adaptation_fact_sheet_jan2012.pdf

³⁶ Farmers in Senegal adopt farming as a business. (n.d.-b). Alliance Bioversity International - CIAT. Retrieved June 11, 2024, from <https://alliancebioversityciat.org/stories/farmers-senegal-adopt-farming-business-beat-climate-change>

³⁷ Owen-Burge, C. (2024, May 1). Race to Resilience in action: Strengthening climate resilience in Senegal through digital agricultural finance. Climate Champions. <https://climatechampions.unfccc.int/race-to-resilience-in-action-strengthening-climate-resilience-in-senegal-through-digital-agricultural-finance/>

yields, heightened food insecurity, decreased livestock productivity, and disrupted market access for farmers³⁸. The vulnerability of Senegal's agricultural sector, which employs 70% of the workforce and contributes 17% to GDP³⁹, underscores the urgency for climate-resilient agricultural practices, early warning systems, and market development initiatives to support farmers in adapting to climate change⁴⁰. Senegal's susceptibility to climate-related disasters, as evidenced by recent events and its heavy dependence on rainfall, underscores its significance as a focal point for implementing effective adaptation strategies and resilience-building measures in agriculture through ARAF II.

Ghana

12. Ghana is vulnerable to increasing aridity, droughts and extreme rainfall events and flooding due to climate change. It is especially vulnerable to floods and droughts in the Northern Savannah belt and to storm surges, landslides, earthquakes, pest infestations and wildfires in its coastal regions. Between 1991 and 2011, Ghana had seven major floods. In 2007, floods caused damage to infrastructure and livelihoods in excess of \$130 million and affected more than 265,000 people in the three northern regions, with nearly 100,000 requiring in assistance to restore their livelihoods. Additionally, these floods were preceded by a period of drought that destroyed most food crops. In 2010, floods in the White Volta River Basin affected hundreds of thousands of people and destroyed many of their livelihoods. Farming and livestock production are especially susceptible to natural hazards such as flooding and droughts. It is projected that flooding will cause \$160 million annually in damages to infrastructure and agriculture.

Ethiopia⁴¹

13. Smallholder farmers in Ethiopia are highly vulnerable to the impacts of climate change, which are exacerbating existing challenges and threatening food security⁴². Recent extreme weather events, such as the 2022-2023 ENSO-induced droughts, have had devastating effects on crop production and the livelihoods of smallholder farmers⁴³. In the eastern parts of Ethiopia, drought following El Niño caused 50 to 90% crop failure⁴⁴. Crop simulations indicate that maize and wheat yields declined in the more drought-prone parts of Ethiopia during El Niño events⁴⁵. The 2015/16 El Niño event had severe droughts and consequent economy-wide impacts, causing a 65% reduction in national grain production.⁴⁶ In 2020, locust swarms reduced cereal crop production by over 1 million quintals in Oromia, Somali and Tigray regions⁴⁷. Droughts have also led to substantial declines in livestock herd sizes, with a 26% reduction in Borana zone in 2010-2011. Climate change is projected to further increase the frequency and intensity of droughts, floods and storms in Ethiopia, with crop production expected to decline by up to 25% by 2050⁴⁸. Pastoralists and agro-pastoralists are particularly vulnerable, as their livelihoods are highly

³⁸ International Food Policy Research Institute (IFPRI). (2013b). West African agriculture and climate change A comprehensive analysis. International Food Policy Research Institute. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf

³⁹ International Food Policy Research Institute (IFPRI). (2013b). West African agriculture and climate change A comprehensive analysis. International Food Policy Research Institute. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf

⁴⁰ Owen-Burge, C. (2024, May 1). Race to Resilience in action: Strengthening climate resilience in Senegal through digital agricultural finance. Climate Champions. <https://climatechampions.unfccc.int/race-to-resilience-in-action-strengthening-climate-resilience-in-senegal-through-digital-agricultural-finance/>

⁴¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁴² World Weather Attribution – Exploring the contribution of climate change to extreme weather events (no date). Available at: <https://www.worldweatherattribution.org> (Accessed: June 11, 2024).

⁴³ Bogale, G.A. (2024) "Exploring smallholder farmers' perceptions of climate change and its adaptation options in the Dire Dawa administration zone, Eastern Ethiopia." International Journal of Climate Change Strategies and Management, ahead-of-print(ahead-of-print), p. Available at: <https://doi.org/10.1108/IJCCSM-07-2023-0089>.

⁴⁴ Gitima, G. (2020). The impacts of el-niño-southern oscillation (ENSO) on agriculture and coping strategies in rural communities of Ethiopia: Systematic review article. Asian Journal of Geographical Research.

⁴⁵ Koo, Jawoo; Thurlow, James; Xie, Hua; Robertson, Ricky; Azzarri, Carlo; Kwon, Ho Young; and Haile, Belyou. 2019. El Niño-Southern oscillation impacts on agriculture and the national economy. In Building resilience to climate shocks in Ethiopia. Chapter 3, Pp. 41-65. Koo, Jawoo; Thurlow, James; ElDidi, Hagar; Ringler, Claudia; De Pinto, Alessandro (Eds). Washington, DC: International Food Policy Research Institute (IFPRI); United Nations Development Programme (UNDP). https://doi.org/10.2499/9780896293595_03

⁴⁶ International Food Policy Research Institute (IFPRI). (2019). El Niño-Southern oscillation impacts on agriculture and the national economy. International Food Policy Research Institute. http://dx.doi.org/10.2499/9780896293595_03

⁴⁷ Demem, M.S. (2023) "Impact and adaptation of climate variability and change on small-holders and agriculture in Ethiopia: A review," Heliyon, 9(8), p. e18972. Available at: <https://doi.org/10.1016/j.heliyon.2023.e18972>.

⁴⁸ Demem, M.S. (2023) "Impact and adaptation of climate variability and change on small-holders and agriculture in Ethiopia: A review," Heliyon, 9(8), p. e18972. Available at: <https://doi.org/10.1016/j.heliyon.2023.e18972>.

dependent on climate-sensitive natural resources⁴⁹. Smallholder farmers have adopted various adaptation strategies, such as using improved crop varieties, agroforestry, crop diversification, and soil and water conservation⁵⁰. However, barriers to adaptation include lack of information, financial constraints, and limited access to land and extension services^{51, 52}. In Ethiopia, recent droughts have inflicted significant economic costs and food security challenges, underscoring the imperative for effective adaptation strategies and climate-resilient agricultural practices. Given the nation's heavy reliance on agriculture and the heightened vulnerability of its smallholder farmers, Ethiopia emerges as a fitting focal point for ARAF II.

Climate projections across ARAF II investment geography

Country	Main hazards	Trends	Projections	Smallholder farmer impact
Morocco	<p><u>Water scarcity and drought</u>⁵³</p> <p>Water inflows (from surface water) have declined, from an annual average of 22 billion m³ between 1945 and 1978 to an annual average of 15 billion m³ between 1979 and 2018. Between 1960 and 2020 the per capita availability of renewable water resources has decreased from 2,560 m³ to c.620 m³ per person per year, placing Morocco in structural water stress (below 1,000 m³).</p>	<p><u>Temperature</u>⁵⁴</p> <p>Morocco's mean annual temperature has increased by 0.9°C since the 1960s, with observed average increases of 0.2°C per decade, exceeding the global average.</p> <p><u>Precipitation</u>⁵⁴</p> <p>Precipitation trends have a high degree of variability. The past decades have shown more erratic rainfall and an overall decline in precipitation. Seasonal rainfall patterns have shifted to longer and more intense rain</p>	<p><u>Temperature</u>⁵⁴</p> <p>Mean annual temperature is projected to increase by 1.5°C to 3.5°C by mid-century and possibly by more than 5°C by end of the century. The number of 'hot days' and 'nights' will also increase.</p> <p><u>Precipitation</u>⁵⁴</p> <p>Projections indicate a significant reduction in average annual rainfall across the country from 10%–20% to as much as 30% decrease for the Saharan region. Water resources are</p>	<p>Rising temperatures and drought will result in the following:</p> <ul style="list-style-type: none"> • Crop damage, loss of pasture and water sources, loss of animals, hunger, disease outbreaks, asset depletion, malnutrition, and migration. • Increase crop water requirements by up to 12%. • Reduction in yields of rainfed crops by 50–75%. • Proliferation of the Hessian fly, increasing the risk of damage to wheat yields.

⁴⁹ Demem, M.S. (2023) "Impact and adaptation of climate variability and change on small-holders and agriculture in Ethiopia: A review," Heliyon, 9(8), p. e18972. Available at: <https://doi.org/10.1016/j.heliyon.2023.e18972>.

⁵⁰ Gezie, M. (2019b) "Farmer's response to climate change and variability in Ethiopia: A review," Cogent Food & Agriculture [Preprint].

⁵¹ Gezie, M. (2019) "Farmer's response to climate change and variability in Ethiopia: A review," Cogent Food & Agriculture [Preprint].

⁵² Berhanu, A. A., Ayele, Z. B., Dagneu, D. C., Melese, T., Fenta, A. B., & Kassie, K. E. (2024b). Smallholder farmers' vulnerability to climate change and variability: Evidence from three agroecologies in the Upper Blue Nile, Ethiopia. Heliyon, 10(7). <https://doi.org/10.1016/j.heliyon.2024.e28277>

⁵³ World Bank Group. "Morocco Country Climate and Development Report." (2022).

<https://openknowledge.worldbank.org/server/api/core/bitstreams/c5c11886-30bf-5350-8e5f-df9722b85fe0/content>

⁵⁴Climate Risk Profile: Morocco (2021): The World Bank Group.

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-09/15725-WB_Morocco%20Country%20Profile-WEB.pdf

	<p>Water resources are expected to be increasingly strained with accelerated evapotranspiration.</p> <p><u>Floods</u>⁵³</p> <p>Floods are the most frequent climate-related natural hazard in Morocco. Indeed, 20 major events have been registered between 2000 and 2021, causing average direct losses estimated at \$450 million per year. In addition, sea-level rise constitutes another long-term stressor.</p>	<p>events in October and November, which often cause flooding, but with substantial reductions in rainfall during the rest of the year.</p>	<p>projected to decline due to increased arid periods and drought conditions. Even with no change in precipitation, evaporation will increase due to rising temperatures.</p>	<p>Extreme rainfall will result in soil erosion, land degradation, loss of ecosystems and ecosystem services, alien species invasion, salinization of groundwater and flood trails containing pesticides and fertilizer⁵⁵.</p>	
Egypt	<p><u>Water availability</u>⁵⁶</p> <p>Egypt is considered water scarce. The annual water availability from the Nile River averages 55.5 BCM (Billion Cubic Meters), which is 33.75 BCM less than reported demand. If available water resources remain constant and population growth continues to increase, Egypt will reach extreme</p>	<p><u>Temperature</u>⁵⁸</p> <p>Temperatures in Egypt have increased at a rate of 0.1°C per decade on average between 1901– 2013, with average annual temperatures increasing by 0.53°C per decade over the past 30 years. There has also been a reduction in cool nights and an</p>	<p><u>Temperature</u>⁵⁸</p> <p>Egypt is expected to experience a change in annual mean temperature from 1.8°C to 5.2°C by the 2080s. Maximum temperatures are expected to increase by 2.1°C to 5.7°C by the 2080s, with minimum temperatures increasing by 1.5°C to 4.6°C. Heat waves will also</p>	<ul style="list-style-type: none"> • Intense precipitation will lead to a heightened risk of flooding, which may also result in soil erosion and water logging of crops. • Higher temperatures, coupled with increased aridity may also lead to livestock stress and reduced crop yields. 	

⁵⁵ Global Center on Adaptation. 2022. State and Trends in Adaptation Reports 2021 and 2022: Executive Summaries and Syntheses. Rotterdam and Abidjan.

https://gca.org/wp-content/uploads/2023/01/GCA_State-and-Trends-in-Adaptation-2022_Country-Profiles.pdf

⁵⁶ World Bank Group. "Egypt Country Climate and Development Report." (2022).

<https://reliefweb.int/report/egypt/egypt-country-climate-and-development-report-november-8-2022-enar>

⁵⁸ Climate Risk Profile: Egypt (2021): The World Bank Group.

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-04/15723-WB_Egypt%20Country%20Profile-WEB-2_0.pdf

	<p>water scarcity in 2033.</p> <p><u>Sea Level Rise (SLR) and increased flooding</u>⁵⁷</p> <p>Sea levels rose from 1.8 mm annually until 1992 to 3.2 mm annually after 2012 and are expected to rise 1-6 mm/year along the coastal zones. The spatial concentration of cities and fertile agricultural lands in the Nile Delta, which lies ~1 m above mean sea level, and along the Mediterranean Sea and Red Sea coasts, amplifies the potential climate change impacts of SLR. Rising sea levels will also lead to saltwater intrusion, inundation, and erosion.</p>	<p>increase in warm nights since 1960.</p> <p><u>Precipitation</u>⁵⁸</p> <p>There has been a c.22% reduction in annual total precipitation amounts over the past 30 years, resulting in reduced water availability and increased periods of drought and dry spells. The frequency and severity of flash flooding in recent years was also observed.</p>	<p>increase significantly in their severity, frequency, and duration.</p> <p><u>Precipitation</u>⁵⁸</p> <p>The country's current low level of precipitation is expected to decrease slightly by the of the century, while the intensity of heavy rain events is expected to increase by the 2080s.</p>	<ul style="list-style-type: none"> Small rural farmers are more sensitive to impacts of disasters because they have limited resources with which to influence and increase adaptive capacity^{57,59}. 	
Nigeria	<p>Floods, droughts, storms, ocean surges, and wildfires⁶⁰</p>	<p>Over the last 30 years, temperatures have been increasing by 0.19°C per decade compared to increases of 0.03°C per decade from 1901–2016</p>	<p>By the end of the century, the German Climate Service Center (GERICS) projects that temperatures across Nigeria will increase by 2.9°C to as much as 5.7°C while the duration of</p>	<p>Only 1% of Nigerian agriculture is irrigated⁶². Smallholder farmers depend heavily on rain-fed agriculture. They are heavily impacted by flooding and drought which lead</p>	

⁵⁷ 2022, June. "Egypt" www.ifad.org/en/web/operations/w/country/egypt. Accessed 16 Apr. 2024

⁵⁹ Hassamal Koral, and Alaoui Mohamed. NDC implementation in Morocco through green investments by private sector. The African Development Bank, 2021.

<https://www.africandchub.org/sites/default/files/2021-06/Morocco%20Scoping%20Study-31.03.pdf>

⁶⁰ Climate Risk Profile: Nigeria (2021): The World Bank Group

⁶² Climate Risk Profile: Nigeria (2021): The World Bank Group

		More frequent and more intense flooding in the South and increased aridity and droughts in the North	heat waves will increase by an additional 8 to 55 days ⁶¹ . Northern Nigeria will experience these temperature changes faster and more intensely than other parts of the country. Rainfall projections are harder to assess but it is highly likely that more extreme events will occur more frequently and will be more intense	to land degradation from erosion, direct crop failure from floods and heavy rains, and nutrient leaching, and fungal growth from humidity. Changes in seasonal rainfall patterns and higher temperatures will shorten growing seasons.	
Cote d'Ivoire	Flooding ⁶³ , Droughts ⁶⁴ Reduced precipitation Also experiencing increased variability in the frequency of specific weather patterns: with some periods becoming increasingly drier or wetter than others ⁶⁵	The Country is exposed to climate change risks, including flooding, rising temperatures and droughts	Temperature Increase: Future climate projections for Cote d'Ivoire by 2050 indicate a temperature increase ranging from +1.3 to 3 degrees Celsius ⁶⁶ . Rainfall Changes: Projections also suggest changes in rainfall patterns, with a range from -2% to +7%. There's an expected increase in the frequency and intensity of heavy rainfall events ⁶⁷ . Dry Spells: The length of dry spells	Potential impact could include changes in agricultural production, including livestock breeding and aquaculture; changes in coffee and cocoa production (major contributors to GDP and exports); changes to the climatically appropriate areas for agricultural production; deforestation and migration; shortened growing season; degradation and loss of agricultural land;	

⁶¹ Climate Risk Profile: Nigeria (2021): The World Bank Group

⁶³ Côte d'Ivoire: Floods - June 2022." ReliefWeb,

⁶⁴ Côte d'Ivoire." Internal Displacement Monitoring Center

⁶⁵ World Food Programme, "WFP Côte d'Ivoire Country Brief August 2019," Rome, Italy, 2019.

⁶⁶ UNDP, National Adaptation Plans in focus: Lessons from Cote d'Ivoire

⁶⁷ Côte d'Ivoire Case Study. (n.d.). Othering & Belonging Institute. Retrieved June 11, 2024, from https://belonging.berkeley.edu/climatedisplacement/case-studies/cote-divoire#footnote12_icwu8qe

			<p>is projected to change, with a range from -8 to +1 days⁶⁸.</p> <p>Sea Level Rise: Sea levels are expected to rise in the range of +18 to 45 cm by 2050⁶⁹.</p>	<p>reduced productivity potential of ecosystems; reduced biodiversity in ecologically rich areas; changes in fishing activities; coastal erosion; reduced run off and surface water availability; and changes in the availability of water resources⁷⁰.</p>
Senegal ⁷¹	Droughts, Floods, Heatwaves, Bush Fires, Pest Infestations ⁷²	0.9°C increase in average temperatures, high rainfall variability, floods, increased frequency of extreme weather events ⁷³	<p>Temperature Increase: Predictions suggest that average temperatures in Senegal could rise by up to 1.8 degrees Celsius by 2035⁷⁴.</p> <p>Precipitation Decrease: Annual precipitation is likely to decrease, leading to water scarcity, and sea levels are expected to continue rising.</p> <p>Impact on Freshwater: These changes are already impacting freshwater availability, posing challenges for various sectors.</p>	<p>The overall decrease in rainfall, coupled with increased variability and intensity, is projected to reduce agricultural yields by up to 30%⁷⁵.</p> <p>Food insecurity, increased poverty, migration, and unemployment among smallholder farmers. Rising temperatures and extreme weather events pose significant threats to agriculture, which employs 60% of the population and contributes 17% to GDP. Efforts to adapt to climate change include watershed management, water retention, and</p>

⁶⁸ African Development Bank Group. (2019c, September 16). Côte d'Ivoire - National Climate Change Profile. African Development Bank Group. <https://www.afdb.org/en/documents/cote-divoire-national-climate-change-profile>

⁶⁹ [UNDP National Adaptation Plans in focus](#)

⁷⁰ African Development Bank Group. "Côte d'Ivoire - National Climate Change Profile." African Development Bank Group, 16 Sept. 2019, <https://www.afdb.org/en/documents/cote-divoire-national-climate-change-profile>. Accessed 15 Apr. 2024

⁷¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁷² Senegal - National Climate Change Profile." African Development Bank Group, 16 Sept. 2019, <https://www.afdb.org/en/documents/senegal-national-climate-change-profile>. Accessed 15 Apr. 2024.

⁷³ [Climate Change risk profile: Senegal](#).

⁷⁴ UNDP, National Adaptation Plans in Focus: Lessons from Senegal

⁷⁵ UNDP, National Adaptation Plans in Focus: Lessons from Senegal

			<p>Climate Change Risks: Risks associated with climate change, including desertification, are anticipated to negatively affect food security, access to clean water, public health, and livelihoods.</p> <p>Long-term Projections: By the 2060s, temperatures could increase by 1.1-3.1°C, rainfall could decrease by 38% to increase by 21%, and sea levels could rise by up to 1 meter by 2100.</p>	<p>coastal erosion adaptation. Climate change exacerbates existing challenges such as poor soil quality, inadequate infrastructure, and limited access to resources⁷⁶.</p>	
Ghana	<p>Floods, droughts, storm surges, landslides, earthquakes, pest infestations and wildfires⁷⁷</p>	<p>Temperatures in Ghana have risen by approximately 1°C since the 1960s (an average increase of 0.21°C per decade). The number of very hot days (Tmax >35°C) have increased by over 13% per year, and hot nights (Tmin >26°C) increasing by 20% per year.⁷⁸</p>	<p>Projections shows that Ghana will get warmer with mean temperatures increasing by 1.0°C to 3.0°C by mid-century and by 2.3°C to 5.3°C by end of the century⁷⁹. The northern and inland areas will experience more rapid warming than the coastal regions. Rainfall is highly variable and is projected to continue to be higher variable in the future. More</p>	<p>Ghana's agricultural sector is heavily dependent on rainfall. Only 2% of farmland is irrigated and most of the sector depends on rain-fed production. As such, Ghana's agriculture is vulnerable to climate change. Cases of total crop failure are projected to occur approximately once every five years in Ghana's northern region due to delayed or diminished rainfall.</p>	

⁷⁶Senegal - National Climate Change Profile." African Development Bank Group, 16 Sept. 2019, <https://www.afdb.org/en/documents/senegal-national-climate-change-profile>. Accessed 15 Apr. 2024

⁷⁷ Climate Risk Profile: Ghana (2021): The World Bank Group

⁷⁸ Climate Risk Profile: Ghana (2021): The World Bank Group

⁷⁹ Climate Risk Profile: Ghana (2021): The World Bank Group

			erratic and intense rainfall during the wet season is expected, along with lower precipitation levels during the dry season. This will increase the frequency of flooding, flash floods and riverbank erosion.	Rising temperatures are projected to lower yields in major staple crops (cassava, yams, plantains, maize and rice). Cassava yields, for example, are projected to fall by 29.6% by 2080 and maize yields by 7% by 2050.	
Kenya⁸⁰	Drought Rising Temperatures Flooding Locust Invasions Rising Sea Levels	Analysis of arid and semi-arid areas in Kenya between 1977 and 2014 shows an increase in average temperatures, with 5 counties in the study recording average increases of more than 1.5°C. Rising temperatures and an increase in intensity of rainfalls has caused six serious floods in the country since 1950 ⁸¹ An increase in frequency and potency of tropical cyclones caused by climate change is creating perfect conditions for the breeding of pests	By 2050, 17 counties in Kenya are expected to have recorded average temperature increases of more than 1.5°C, while all Kenyan counties will have recorded increases of 1.5°C by 2070. ⁸² Floods are expected to continue occurring every 3 – 4 years, resulting in a loss of 5.5% of GDP every 7 years, with the amount of rainfall experienced expected to increase by up to 40% between now and 2100 ⁸³ An increase in ocean temperatures and greater rainfall variability in deserts	Reduced crop yields, reduced livestock products yields and higher livestock mortality Loss of life of smallholder farmers, destruction of crops and infrastructure Devastation of crops, leading to food insecurity and economic losses Loss of arable land, damage to coastal infrastructure, saline intrusion into freshwater sources	

⁸⁰ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁸¹ "Climate Change Profile: Kenya – Kenya". ReliefWeb. Retrieved 11 June 2024.

⁸² Kenya Markets Trust (2019). "Contextualising Pathways to Resilience in Kenya's ASALs under the Big Four Agenda" (PDF)

⁸³ Ibid

		<p>such as locusts, creating plagues.</p> <p>In 2019, Kenya experienced its worst locust invasion in 70 years due to the enabling effect of such tropical cyclones.</p> <p>Coastal areas in Kenya are at risk for rising sea levels due to increased rainfall events, storm surges and melting of mountain glacier ice caps due to higher temperatures. Between 1932 and 2001, Mombasa experienced a sea level rise of 5.8cm.</p>	<p>is expected to lead to an increase in frequency and strength of tropical cyclones, as well as provide an enabling environment for the breeding of desert locusts⁸⁴</p> <p>Coastal areas in Kenya are projected to experience a sea level increase of 16-42cm by 2050⁸⁵</p>		
Uganda	<p>Rising Temperatures</p> <p>Flooding</p> <p>Drought</p> <p>Landslides</p>	<p>Average temperatures have increased by 1.30C in Uganda since the 1960s.</p> <p>Increase in temperatures has caused glacier melting in the Ruwenzori Mountains, causing frequent flooding in the Ruwenzori region. Intense rainfall has also caused flooding in other parts of the country.</p>	<p>Average temperatures continue to increase at a rate of 0.30C per decade, leading to additional catastrophes such as flooding, drought, and other extreme weather events such as storms. ⁸⁸</p> <p>Further glacier melting in the Ruwenzori Mountains, as well as more frequent occurrences of heavy rainfall is expected to contribute to additional flooding</p>	<p>Reduced crop yields, reduced livestock products yields, and higher livestock mortality</p> <p>Destruction of crops and infrastructure, disruption of livelihoods and access to markets, increased soil erosion.</p> <p>Reduced crop yields, increased water scarcity, and degraded soil quality, leading to</p>	

⁸⁴ Salih, Abubakr A. M.; Baraibar, Marta; Mwangi, Kenneth Kemucie; Artan, Guleid (July 2020). "Climate change and locust outbreak in East Africa"

⁸⁵ "CLIMATE RISK PROFILE: KENYA" (PDF). Climatelinks. Retrieved 11 June 2024.

⁸⁸ "World Bank Climate Change Knowledge Portal". Retrieved 11 June 2024.

		<p>From 1900 to 2018, Uganda has experienced 9 droughts brought on by increased temperatures, variability in rainfall, particularly in Eastern and Northeastern Uganda. ⁸⁶</p> <p>Uganda is prone to frequent landslide events, particularly in the Ruwenzori, Mt Elgon and Kigezi regions, caused by torrential rainfall. ⁸⁷</p>	<p>events in Uganda over the next few years. ⁸⁹</p> <p>Between 2024 and 2050, due to increased temperatures as highlighted above, as well as projected increased rainfall variability due to climate change, drought events are expected to persist in Uganda.</p> <p>Persistent cases of torrential rainfall caused by climate change are expected to exacerbate.</p>	<p>lower agricultural productivity</p> <p>Destruction of crops and loss of agricultural land, destruction of infrastructure and loss of life.</p>	
Ethiopia⁹⁰	Droughts, Floods ⁹¹	<p>Overall decrease in average annual rainfall, increased variability in rainfall patterns, observed increase in average surface temperatures</p>	<p>Temperature increase: Expected mean annual temperature change by the end of the 21st century ranges from 1°C to above 4.8°C⁹²</p> <p>Rainfall Changes: Evidence of a 20% decrease in rainfall in the south-central region. Average rainfall shows a decreasing trend on an annual timescale, with</p>	<p>Increased vulnerability to droughts and floods, shorter planting and crop maturity periods, increased livestock deaths, decreased agricultural productivity, impacting food security and farmer income. Climate resilience and adaptation strategies are crucial for mitigating these impacts and building adaptive capacity among</p>	

⁸⁶ World Bank. "Uganda - Vulnerability." Climate Change Knowledge Portal. 2024

⁸⁷ UNESCO Uganda. "3. LANDSLIDES IN UGANDA. 3.1 Landslide hazard assessment." UNESCO Uganda, 2019

⁸⁹ USAID. "Uganda: Climate Risk Profile." Climate Risk Country Profiles, 2019. Accessed 11 June 2024.

⁹⁰ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁹¹ United Nations, "Ethiopia's Climate Resilient Green Economy, National Adaptation Plan" March 2019.

⁹² United Nations, "Ethiopia's Climate Resilient Green Economy, National Adaptation Plan" March 2019, p 33.

			<p>increased variability in rainfall patterns.</p> <p>Extreme Weather Events: Increased frequency and intensity of floods and droughts.</p>	<p>smallholder farmers⁹³.</p> <p>Increased temperatures shorten planting and crop maturity periods, increase the likelihood of disease and crop failure.</p> <p>Livestock production is affected by increased mortality, reduced reproduction, and decreased feed availability.⁹⁴</p>	
Tanzania ⁹⁵	<p>Rising Temperatures</p> <p>Droughts</p> <p>Water Scarcity</p>	<p>Between 1976 and 2005, average temperatures in Tanzania increased by 0.9°C, representing an increase of 0.03°C per year, a clear warming trend.</p> <p>Tanzania has experienced 8 major droughts since 1980, brought about by rising temperatures and erratic rainfall leading to dry spells.⁹⁶</p> <p>Tanzanians are increasingly facing water shortages as</p>	<p>By the 2090's, Tanzania is projected to experience an increase in average temperatures of between 1.5°C and 5.0°C.⁹⁸</p> <p>By 2050, projected temperature increases of 2°C, as well as predicted rainfall variability of 20% is expected to lead to additional drought events in the country.⁹⁹</p> <p>Persistent increases in temperature, as well as erratic rainfall in the country will</p>	<p>Rising temperatures will lead to water scarcity, reduced agricultural and livestock yields, as well as an increase in outbreaks, such as recent cholera outbreaks in the region.</p> <p>Reduced crop yields, increased water scarcity, and degraded soil quality, leading to lower agricultural productivity.</p> <p>Cases of water scarcity reduce crop yields, reduce livestock product</p>	

⁹³ United Nations, "Ethiopia's Climate Resilient Green Economy, National Adaptation Plan" March 2019, p 33.

⁹⁴ United Nations, "Updated Nationally Determined Contribution: Federal Democratic Republic of Ethiopia," July 2021, p 2.

⁹⁵ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

⁹⁶ Smith, John. "Tanzania Vulnerability." Climate Knowledge Portal, 11 June 2024, climateknowledgeportal.worldbank.org/country/tanzania/vulnerability. Accessed 11 June 2024.

⁹⁸ Future Climate for Africa. "Future climate projections for Tanzania" (PDF). Future Climate for Africa.

⁹⁹ Rowhani, Pedram; Lobell, David B.; Linderman, Marc; Ramankutty, Navin (2011-04-15). "Climate variability and crop production in Tanzania". Accessed 11 June 2024.

		<p>many water bodies in the country, such as Lake Victoria, Lake Tanganyika, Lake Jipe and Lake Rukwa, as well as rivers such as Ruvu River register extreme drops in water levels as a result of increased temperatures and erratic rainfall.⁹⁷</p>	<p>exacerbate water scarcity Tanzania.</p>	<p>yields, and lead to increased livestock mortality events. Water scarcity also contributes to disease outbreaks such as Cholera and Typhoid.</p>	
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Current adaptation practices across ARAF II investment geographies

14. Smallholder farmers are gradually adapting their practices to deal with the challenges and impacts of climate change, leveraging government, NGO and private sector support, as well as their own knowledge systems. The principal adaptation strategies employed by smallholder farmers in Africa fall within the following 4 categories: crop varieties and management; water and soil management; financial schemes, migration and culture; agriculture and weather services.
15. Crop diversification is the most commonly used adaptation strategy, other crop management adaptation strategies include the utilization of drought-tolerant varieties, changing planting dates, planting early maturity crops, planting improved varieties (disease-resistant and flood-tolerant) and planting trees. Given the anticipated increase in the occurrence of droughts, changes in precipitation levels, rise in average temperatures, and threats to freshwater resources, irrigation and water management is necessary for managing and maintaining soil quality and fertility. As previously mentioned, irrigation coverage in Africa is extremely low, smallholder farmers in Africa are relying on hand-dug ponds, dams, and trenches to harvest rainwater for watering crops during the dry season. In countries with established irrigation schemes, the technology can sometimes be inadequate or go unrepaired for long periods of time. Other adaptation strategies include: new fertilizing practices for crops, protecting soils, mixed farming (crop-livestock), inter-planting, and zero tillage, increased investment in flood mitigation infrastructure; adopting better soil management practices; providing early warning and meteorological forecasts and related information; and implementing strategies for improved resource management, including the use of irrigation systems that use low amounts of water and the planting of native vegetation cover. Lastly, crop insurance is a vital adaptation strategy for smallholder farmers¹⁰⁰.

Specific adaptation measures employed in communities in Senegal and Ethiopia include:

16. **Senegal**¹⁰¹: utilization of climate information systems for precise planning and decision-making, including seasonal, ten-day, and daily forecasts¹⁰². Crop diversification and selection involve the adoption of drought-tolerant and short-cycle crop varieties¹⁰³. Soil management techniques such as organic fertilizers, mulching, and composting are

⁹⁷ "Tanzania | UNDP Climate Change Adaptation". www.adaptation-undp.org. Retrieved 2020-11-27.

¹⁰⁰ Magesa, Bahati A, et al. "Understanding the farmers' choices and adoption of adaptation strategies, and plans to climate change impact in Africa: A systematic review". *Climate Services*, vol 30, 2023. Accessed 12 June 2024

¹⁰¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

¹⁰² International Food Policy Research Institute (IFPRI). (2013). *West African agriculture and climate change A comprehensive analysis*. International Food Policy Research Institute. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf

¹⁰³ Zagre, I., Akinseye, F. M., Worou, O. N., Kone, M., & Faye, A. (n.d.). Climate change adaptation strategies among smallholder farmers in Senegal's semi-arid zone: Role of socio-economic factors and institutional supports. *Frontiers in Climate*, 6. <https://doi.org/10.3389/fclim.2024.1332196>

employed to improve soil fertility and moisture retention. Water management strategies include the use of stone bunds and improved irrigation practices. Agroforestry and silvopastoral systems are implemented through intercropping and assisted natural regeneration to enhance biodiversity and mitigate temperature impacts. Livestock management practices focus on intensification, sedentarization, and the adoption of climate-resilient herd species. Additionally, the government's support for climate index insurance by providing a 50% subsidy¹⁰⁴ aids farmers in managing climate-related risks effectively. These CSA initiatives have proven pivotal in bolstering the resilience of Senegalese farmers, augmenting agricultural productivity, and mitigating environmental degradation.

17. **Ethiopia**¹⁰⁵: These include terracing for water and soil conservation, utilized by 36.7% of farmers¹⁰⁶, as well as adjustments in planting dates¹⁰⁷, favored by 53% of farmers, to align with shifting rainfall patterns. Additionally, 49% of farmers are engaging in crop diversification to lessen dependence on single crops¹⁰⁸, while 14.3% utilize fertilizers to bolster yields¹⁰⁹. Other strategies such as income diversification, livestock diversification, participation in weather insurance programs¹¹⁰, storage of crop residues, maintenance of grain reserves, planting early maturing crop varieties, cultivating drought-tolerant crops like Enset¹¹¹, and tree planting are also prevalent. Implemented across various agro-ecological zones in Ethiopia, these strategies are influenced by factors including age, family size, educational level, farm size, income, and access to climate information and extension services¹¹².
18. However, the rate of farmers' adoption of these strategies is limited. An analysis of 66 peer-reviewed research papers on farmers' adaptation strategies to climate change written between 2001 and 2020 (with over 40% published in 2019 and 2020), found that some highly recommended strategies, such as planting early maturity crops only featured in 22.5% of studies, irrigation schemes in 13.6%, livelihood diversification in 13.6%, the use of improved varieties in 9% and insurance schemes in 3%¹¹³. Some specific cases showing the limitation of adaptation practices include:
- The modernization of irrigation systems and investment in on-farm equipment in Morocco between 2008 and 2018 led to a 3.5x increase in areas under drip irrigation, resulting in a 92% increase in agricultural value during the period. However, rainfed areas still cover 80% of agricultural lands, with highly variable crop yields. Rainfall shocks explain close to 37% of the variability of Morocco's total output over the medium term¹¹⁴.
 - Since 2010, the Egyptian government has provided support to facilitate change by building and managing infrastructure, allocating supplies, and coordinating with national private entities and international donors to implement adaptation measures in the Nile Delta, such as developing more heat and salinity-resistant/tolerant crops, improving irrigation systems, and supporting crop insurance, crop diversification, and environment friendly practices. Studies have however shown that adoption of adaptation measures by smallholder farmers

¹⁰⁴ International Food Policy Research Institute (IFPRI). (2013). *West African agriculture and climate change A comprehensive analysis*. International Food Policy Research Institute. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf

¹⁰⁵ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

¹⁰⁶ Climate Adaptation Platform. (2021, July 9). *Climate adaptation strategies by Ethiopian farmers*. Climate Adaptation Platform. <https://climateadaptationplatform.com/climate-adaptation-strategies-by-ethiopian-farmers/>

¹⁰⁷ Gebre, G. G. (2023). Can farmers' climate change adaptation strategies ensure their food security? Evidence from Ethiopia. *Agrekon*.

¹⁰⁸ Gebre, G. G. (2023). Can farmers' climate change adaptation strategies ensure their food security? Evidence from Ethiopia. *Agrekon*.

¹⁰⁹ Climate Adaptation Platform. (2021, July 9). *Climate adaptation strategies by Ethiopian farmers*. Climate Adaptation Platform. <https://climateadaptationplatform.com/climate-adaptation-strategies-by-ethiopian-farmers/>

¹¹⁰ Oxfam. (2022, May 25). *Four simple strategies which are helping Ethiopian farmers adapt to climate change*. Oxfam International. <https://www.oxfam.org/en/four-simple-strategies-which-are-helping-ethiopian-farmers-adapt-climate-change>

¹¹¹ Belay, A., Recha, J. W., Woldeamanuel, T., & Morton, J. F. (2017). Smallholder farmers' adaptation to climate change and determinants of their adaptation decisions in the Central Rift Valley of Ethiopia. *Agriculture & Food Security*, 6(1), 1–13. <https://doi.org/10.1186/s40066-017-0100-1>

¹¹² Belay, A., Recha, J. W., Woldeamanuel, T., & Morton, J. F. (2017). Smallholder farmers' adaptation to climate change and determinants of their adaptation decisions in the Central Rift Valley of Ethiopia. *Agriculture & Food Security*, 6(1), 1–13. <https://doi.org/10.1186/s40066-017-0100-1>

¹¹³ Magesa, Bahati A, et al. "Understanding the farmers' choices and adoption of adaptation strategies, and plans to climate change impact in Africa: A systematic review". *Climate Services*, vol 30, 2023. Accessed 12 June 2024

¹¹⁴ Cardarelli, Roberto, and Taline Koranchelian. "CHAPTER 7: Climate Change and Development in Morocco". *Morocco's Quest for Stronger and Inclusive Growth*. USA: International Monetary Fund, 2023. <<https://doi.org/10.5089/9798400225406.071.CH007>>. Web. 11 Jun. 2024.

is affected by socioeconomic characteristics, access to formal and informal credit, access to extension services, limited access to services, poor regional infrastructure, insufficient funding, and the high cost of production¹¹⁵.

19. Farmers adoption of adaptation strategies is constrained by several factors including education and access to information, access to agricultural extension services, access to credit and markets¹¹⁶. Policy recommendations include improve early warning systems, which can facilitate efficient and informed decision making to limit impact; enhance surveillance efforts; facilitating access and affordability to improved varieties; better education and training of farmers; quicker and more affordable channels for dissemination information to farmers¹¹⁷. These are aligned with the aim of ARAF's investment strategy and the services that the companies ARAF seeks to invest in would provide to farmers.

THE PROPOSED SOLUTION: ACUMEN RESILIENT AGRICULTURE FUND II (ARAF II)

20. ARAF II is a proposed US\$120MM impact venture capital climate fund focused on providing adaptation finance to support the resilience of smallholder farmers across 6 African countries and improve food security. ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries.¹¹⁸ The Fund invests equity and equity-linked instruments in businesses that provide bundled solutions of comprehensive and/or compelling products and services to farmers in a way that induces changes in farmer behavior, resulting in increased adoption of adaptation practices by SHFs. ARAF I successfully demonstrated the commercial viability of the sector by investing in, developing and scaling sustainable agribusinesses that make agricultural value chains more climate resilient. Accordingly, ARAF II seeks to continue ARAF I's successful investment strategy and plans to invest along the same 3 themes of: aggregator platforms, digital platforms and innovative financial solutions.
21. **Aggregator Platforms:** ARAF II seeks to continue to invest in opportunities that are focused on any combination of the following themes and strategies: yield optimization, premium pricing, regenerative agriculture, efficient energy enablers and local food security. In many instances, these businesses may be vertically integrated processors and/or distributors, who need to secure a substantial quantity and/or specific quality of production, and as such are compelled to offer farmers comprehensive support along the value chain.

Climate risk vulnerability:

The nature of their production makes smallholder farmers across Africa extremely susceptible to the expected climate hazards of increased temperatures, increased incidences of drought, increased incidences of flooding, unpredictable rain fall patterns and changing planting cycles. To adapt to these emerging scenarios, SHFs need to make necessary amendments to their farming practices, however, most of these solutions are out of their reach. SHFs, due to their location in rural areas and at the last mile, do not have easy access to quality inputs. Additionally, they may also not be aware of the benefits of certain inputs, including climate resistant seed varieties. If they do, they may be unable to afford them. SHFs also have little to no access to infrastructure – both in terms of mechanization to help with land preparation and harvesting or irrigation to help with the availability and management of water resources. Finally, SHFs typically transact through multiple intermediaries rather than directly with buyers,

¹¹⁵ Kassem, Hazem S., et al. "Climate change adaptation in the delta Nile Region of Egypt: Implications for agricultural extension." *Sustainability* 11.3 (2019): 685.

https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1002&context=extension_research

¹¹⁶ Mbakahya and Ndiema. "Farming households' vulnerability and resilience to climate change in Nambale sub-county of Kenya". *International Journal of Science, Environment and Technology*, vol 4, no. 6th ed., 2015. pp. 1608 - 1617., Accessed 14 June 2024.

¹¹⁷ Baffour-Ata F, Atta-Aidoo J, Said RO, Nkrumah V, Atuyigi S, Analima SM. Building the resilience of smallholder farmers to climate variability: Using climate-smart agriculture in Bono East Region, Ghana. *Heliyon*. 2023 Nov 4;9(11):e21815. doi: 10.1016/j.heliyon.2023.e21815. PMID: 38027792; PMCID: PMC10663821.

¹¹⁸ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

separating them the significant proportion of the value that they have created and leaving them in a cycle of poverty, which exacerbates their vulnerability to climate change.

Adaptation strategies and expected results:

Investing in aggregator platforms is expected to generate the following adaptation benefits for SHFs:

- Increased access to, and use of, improved and/or resistant crop varieties that are more suited to the changing climatic conditions of the region
- Increased adoption of climate-smart agricultural practices
- Increased access to extension services and support to promote good soil and water management practices
- Increased market connectivity and direct linkages to drive profitability of smallholder farmers
- Improved crop and livestock productivity notwithstanding adverse climatic conditions
- Improved soil quality and fertility (e.g. soil biodiversity and soil moisture); enable resilience to insects, pests, and diseases; increase water reserves; and limit runoff and associated pollution
- Improved pricing for SHFs creating an opportunity for increased income and potentially, profitability, given the interaction between increased yields and increased pricing
- Improved food security and import substitution

Adaptation impact being targeted:

- Direct and indirect impact on vulnerable smallholder farmers and their families through the provision of climate resilient inputs and knowledge that improve their ability to protect and improve their yields; as well as the opportunity to earn higher prices through direct market connection, ultimately driving greater resilience.

22. **Digital Platforms:** ARAF II intends to invest in enterprises that utilize technology solutions to efficiently provide comprehensive end-to-end supply-chain services; or precision and/or predictive information to smallholder farmers to support their production. These entities typically have widespread impact since they can quickly acquire traction in terms of farmers served and/or farmers in their network. Examples of business models include: precision farming, marketplaces, mechanization platforms, farmer advisory services, data and analytics, IoT, robotics and automation.

Climate risk vulnerability:

Smallholder farmers' dependency on and vulnerability to weather makes them extremely susceptible to the impacts of climate hazards, such as increased temperatures, increased incidences of drought, increased incidences of flooding, unpredictable rain fall patterns and changing planting cycles. To adapt to these emerging scenarios, SHFs need to make quick and informed adjustments to their farming practices. However, most of these solutions are out of their reach because SHFs do not have access to adequate information or expertise.

A study conducted on smallholder farmers in Ghana indicated that farmers had adopted the use of digital agriculture technologies / tools / services ("DATs"), specifically radio, television and mobile phones, to access climate adaptation practices and interventions, across the following topics: water-smart practices, weather-smart practices, Carbon/Nutrient/Energy smart practices, and Institution/Market smart practices. Furthermore, farmers typically access information of these climate-smart agricultural practices through digital agri-advisory services, agri-digital financial services and digital procurement services. The impediments to farmers mass adoption of climate smart practices include high cost of delivering traditional extension services, affordability and unavailability of DATs, low digital literacy rates, inadequate support from DAS providers and agriculture extension officers. These are the very challenges that digital platforms are working to address by providing SHFs with seamless connections to the products and services that they require, while providing value added information that may be specific to the farmers geography or individual farm, including agronomical support, market prices and weather forecasts via mobile phone and/or extension workers with tablets.

Adaptation strategies and expected results:

Investing in digital platforms is expected to generate the following adaptation benefits for SHFs:

- Prescriptive use of water and land resources

- Optimized use of inputs, resulting in lower use of fertilizer and pesticides and reduced pollution
- Facilitate access to credit
- Improved connectivity across the value chain for greater efficiency, just in time availability of inputs and collection of production
- Direct market connection leads to improved income and profitability for SHFs
- Improved transparency and traceability across the value chain

Adaptation impact being targeted:

Direct and indirect impact on vulnerable smallholder farmers and their families through the provision of climate resilient inputs and knowledge that improve their ability to protect and improve their yields; as well as the opportunity to earn higher prices through direct market connection, ultimately driving greater resilience.

23. **Innovative Financial Solutions:** ARAF II intends to seek to invest in companies that provide farmers with the structure to afford the products and services that they need to improve their long-term productivity, whether through input credit, pay-as-you-go models or infrastructure-as-a-service models. These companies deploy innovative approaches to help farmers make the necessary investments into their production, which would otherwise be out of reach for them. The Fund aims to also invest in insurance companies that support farmers ability to absorb the impact of climate shocks, some of the products include embedded insurance and weather-indexed insurance.

Climate risk vulnerability: SHFs have limited financial capacity to afford climate resilient seeds, which may have to be repurchased every season; other quality inputs; equipment for land preparation at the start of the planting season; irrigation systems or services; or insurance. Inability to afford these products and services leave SHFs vulnerable to climate risks associated with reduced precipitation and water scarcity, drought and flood. Inability to afford insurance means that not only could farmers lose their production (and assets) in the event of a climate event, but they could also receive no assistance (beyond governmental support) to cover the loss and support their ability to continue to make investments into their production capacity.

Adaptation strategies and expected results:

Investing in innovative financial solutions is expected to generate the following adaptation benefits for SHFs:

- Increased investments in long-term production capacity given access to financing for SHFs and/or farming cooperatives
- Maintain yields during unfavorable weather conditions due to resistant-crop varieties and irrigation systems
- Reduced economic vulnerability and increased ability to absorb climate shocks
- Ongoing investments into farm productivity creating increased resilience
- Reduced post-harvest losses by supporting farmers and SME acquisition of, or access to, cold storage equipment, including solar-powered models

Adaptation impact being targeted:

Direct and indirect impact on vulnerable smallholder farmers and their families through the provision of financing strategies and insurance products that improve their ability to invest in, and protect, their productive capacity, enabling the opportunity for compounding returns on investment over the long-term.

24. **CLIMATE FINANCE CONTEXT**¹¹⁹

Estimates indicate that African countries will require at least US\$2.8T¹²⁰ to implement their respective Nationally Determined Contributions (NDCs); which have been prepared by 90% of African countries in response to the Paris

¹¹⁹ 19 Sept. 2022, fsdafraica.org/wp-content/uploads/2022/09/fsdafraica.org/wp-content/uploads/2022/09/1.-Landscape-of-Climate-Finance-in-Africa-I-Full-report.pdf. Accessed 12 Apr. 2024.

¹²⁰ 19 Sept. 2022, fsdafraica.org/wp-content/uploads/2022/09/fsdafraica.org/wp-content/uploads/2022/09/1.-Landscape-of-Climate-Finance-in-Africa-I-Full-report.pdf. Accessed 12 Apr. 2024.

Agreement and which detail country mitigation and adaptation priorities aimed at addressing climate change. This translates to US\$277B required annually in the decade between 2020 and 2030, African governments have committed US\$26.4B per annum, representing 10% of the requirement, leaving a climate financing funding need of US\$250B per annum to fund the NDCs¹²¹. African governments are constrained to contribute more due to large existing debt and limited fiscal capabilities. According to Climate Policy Initiative, Africa's climate finance needs "must largely come from international public sources and domestic and international private actors."

Africa's climate finance needs are concentrated towards mitigation, which accounts for 66%¹²², however it is recognized that countries typically underestimate their climate finance needs, and this is especially true for adaptation, given limited local technical expertise in assessing adaptation costs and data constraints. Within mitigation (and not accounting for South Africa), the energy sector has the highest concentration of investment opportunities accounting for 39% of the requirement, followed by Agriculture, Forestry and Other Land Use (AFOLU) at 27%, industry at 21% and transport at 10%¹²³. Within adaptation, agriculture accounts for the highest concentration, accounting for 25% of investment requirements, followed by water at 17%, infrastructure and buildings at 12% and preparedness at 10%.¹²⁴

Average annual climate flows of US\$29.5B (over 2019 and 2020), severely falls short of the climate financing needed, contributing only 11.8% of the annual requirement; with mitigation accounting for 49% of the inflows, adaptation accounting for 39% and dual-purposes accounting for 12%¹²⁵. Investment flows were dominated by public international actors, who account for 80%; with private sector finance, accounting for 14%¹²⁶. Africa's private sector participation in climate finance lags other regions in the world, including developing regions, which have participation ranging from 37% for South Asia to 49% for Latin America and the Caribbean¹²⁷. Further highlighting the urgent need to mobilize additional private sector investment in the sector. ARAF II seeks to accomplish this by leveraging GCF first loss capital to crowd-in private sector investors. According to CPI analysis, regional financing gaps varied widely, with East Africa receiving 12.2% of its financing needs; West Africa receiving 21.9%; and North Africa receiving 35.3%¹²⁸.

Financing instruments used include loans (low-cost project debt and project-level market rate debt), grants, project-level equity, balance sheet financing, with variability in application depending on the sector, country, and type of project. Loans had the largest concentration, and accounted for 56% of the instruments utilized, and grants accounted for 30%¹²⁹. In adaptation financing, grants accounted for 45%, low-cost loans accounted for 30%, and market-rate loans accounted for 23% of funding¹³⁰. Finally, in AFOLU, grants accounted for 54% of funding¹³¹. Adaptation and AFOLU, the areas of ARAF II's intervention attract minimal equity inflow, which is necessary for deleveraging investments from potentially risky high-debt positions; as well as drives stronger and more sustainable financial and impact performance compared to grants, which are better applied towards derisking early-stage projects or supporting non-commercially viable initiatives.

¹²¹ Ibid

¹²² Ibid

¹²³ Ibid

¹²⁴ Ibid

¹²⁵ Ibid

¹²⁶ Ibid

¹²⁷ Ibid

¹²⁸ Ibid

¹²⁹ Ibid

¹³⁰ Ibid

¹³¹ Ibid

Climate related vulnerabilities and gaps	Regions affected	ARAF II investment segment	Potential interventions / investments	Expected impact
Climate funding to support smallholder farmers' resilience and improve food security	North, East and West Africa	Aggregator Platform, Digital Platform, Innovative Financial Solutions	Target: US\$120MM fund	Increased farmer resilience and adaptive capacity driven by agribusinesses that have achieved scale
Shifting rain patterns and changes in precipitation could lead to shortened growing seasons, impairing crop yields and reducing productivity. Additionally, more intense and less predictable rainfall poses a threat to water availability	East Africa	Aggregator Platform	Invest in companies that provide innovative water management solutions, including bundled solutions for small scale irrigation, irrigation as a service, and drip irrigation solutions to smallholder farmers. Support training to planting practices that are in line with expected rainfall patterns (i.e. avoiding low lying areas, soil contouring, etc)	Increased farmer yields, livestock productivity, and incomes Decreasing dependence on rainfall variability
Increases in the frequency and intensity of floods, leading to soil erosion, land degradation, loss of ecosystems and ecosystem services, alien species invasion, salinization of groundwater and flood trails containing pesticides and fertilizer	East Africa, North Africa	Aggregator Platform, Digital Platform, Innovative Financial Solutions	Investment in aggregators providing extension services/training in land management, insurance providers, and information/education platforms	Enable efficient land management practices such as contouring to prevent erosion as well as agrochemical application and management; Provide compensation for losses as well as early warning systems on extreme weather events

	<p>Prolonged dry spells / drought, leading to losses in crops and livestock, reduced farm productivity, loss of pasture and water sources, and secondary consequences such as food insecurity, malnutrition, famine, disease outbreak, and biodiversity loss</p>	<p>East Africa, North Africa</p>	<p>Aggregator Platform, Digital Platform</p>	<p>Investment in companies that facilitate access to drought tolerant crops / seeds and encourage farmers utilization of the same, whether by providing market offtake or education on the benefits, or credit for these inputs</p>	<p>Expected to result in increased yields during drought conditions, with farmers reporting 20% - 30% yield improvement</p>	
	<p>Rising temperatures may lead to changes in crop production areas and affect livestock in arid and semi-arid regions</p>	<p>East Africa, North Africa</p>	<p>Aggregator Platform</p>	<p>Investment in providers of improved breeds; Investment in companies that promote climate smart agriculture, including mulching, low- or no- tillage farming, intercropping, planting of crop cover.</p>	<p>Expected to lead to increased access to improved breeds and associated extension services; Expected to lead to increased soil health, increased soil quality and reduced soil erosion, leading to resilient soils and cropping systems, ultimately promoting food security</p>	
	<p>Lack of financing at the farmer level to support the adoption of climate smart practices, including land preparation, use of quality inputs, irrigation, mechanization, etc.</p>	<p>East Africa, West Africa</p>	<p>Innovative Financial Solutions, Digital Platform, Aggregator Platform</p>	<p>Investment in companies that provide farmers with innovative pay-as-you-go models for CAPEX systems; inputs on credit, as well as access to premium markets, deducting the principal and interest from offtake at harvest; and/or create credit models and algorithms that help financial institutions better assess and extend credit to farmers</p>	<p>Expected increase in productivity, profitability and on-going investment by farmers</p>	

<p>Lack of access to, and affordability of, insurance policies that protect farmers in the event of adverse climatic situations, leading to more devastating losses and slower recovery for rural farmers, as well as an unwillingness to make on-farm investments</p>	<p>East Africa, West Africa</p>	<p>Innovative Financial Solutions</p>	<p>Invest in companies providing smallholder farmers with access to insurance products, whether at the micro-level through access to embedded products or at the meso-level through cooperatives</p>	<p>The availability of agricultural insurance is expected to improve smallholder farmers access to credit, as well as improve their ability to continue to invest in their farmers, thereby increasing productivity</p>
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ARAF II'S COMPLEMENTARITY TO EXISTING PROJECTS

25. ARAF II seeks to replicate the strategy implemented by ARAF I, investing in sustainable agribusiness models that provide bundled solutions to these smallholder farmers to improve smallholder farmer resilience and adaptation to climate change. By investing in agri-businesses to improve SHF resilience we aim to enhance smallholder farmer productivity, income and livelihoods, as well as strengthen the resilience of the entire agriculture value chain. ARAF I was created to prove the thesis that smallholder farmers could be made more resilient through investing in commercially viable businesses, and there was demand from public and private investors for this investment thesis. Farmer surveys conducted by an independent third party (discussed in detail subsequently), ARAF I's portfolio companies have strengthened the climate resilience of farmers. As of the same date, ARAF I's portfolio companies had reached 1.13MM farmers, 40% of whom are female farmers, impacting 5.6MM people. ARAF II seeks to scale the investment strategy over a wider investment region to amplify impact across climate vulnerable geographies.
26. ARAF II intends to continue to invest across the same stage as ARAF I, i.e. across venture, early-growth, growth-stage investments, as well as the same instruments, i.e. equity and quasi-equity. The slightly larger skewing in the ticket size for ARAF II is based on ARAF I's experience, where the majority of investable opportunities were at the larger end of the investment range into early-growth opportunities, which had been sufficiently derisked and proven their business models.
27. ARAF II expects to invest in aggregator platforms, digital platforms and innovative financial solutions companies in a way that complements existing projects within the agricultural sector in the following ways:
 - Private sector financing: As shared in the climate finance context of this section B.1, private sector participation in climate financing in Africa is low and further investments need to be mobilized, because private sector financing drives the growth of financially sound, scalable and sustainable businesses with business models that are replicable across the continent and the world. ARAF I's investments focus on adaptation is aligned with the Africa Adaptation Acceleration Program (AAP), which aims to deploy \$US25B in concessional financing to low-income African countries, including into climate-smart digital technologies for agriculture and food security, towards accelerating and scaling climate adaptation. Root Capital, a non-profit organization with a similar impact focus on smallholder farmers as ARAF, provides debt financing of between US\$200K and US\$2MM to enterprises with SHF customers and suppliers. ARAF II's investment into innovative financial solutions is also aligned with the AfDB's goal to raise US\$1B for The Africa Climate Risk Insurance Facility for Adaptation (ACRIFA), which will provide concessional financing to African countries to drive higher climate insurance penetration within the agricultural sector. While the public sector is leading the charge in climate financing, private sector funding is also needed given the specific benefits of private capital. Public participation is ideal to fund large government projects, provide concessional financing and guarantees, aimed at derisking

projects and catalyzing private capital. Private sector actors, like ARAF II, investing over a prolonged period, are expected to create a virtuous cycle of additional private capital participation by providing evidence that gradually reduces the perception of heightened risks within the region and sector.

- Equity capital: Climate adaptation and agriculture financing has low equity participation, as a result, small and growing agribusinesses in the region find it difficult to attract equity capital to appropriately optimize their capital structure and drive long term growth. Loans and grants account for more than 75% of the financing available¹³², for example the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) grant established by International Fund for Agricultural Development (whose East Africa component, FP220 has been approved by the Green Climate Fund). ARCAFIM's mandate, similar to ARAF's, is focused on improving the adaptative capabilities of smallholder farmers. As an equity and/or quasi-equity investor in early growth stage businesses, ARAF II seeks to diversify the investment instruments available to agribusinesses thereby reducing the gap in climate resilience SME financing. Post investment, ARAF II aims to support the rapid growth of investee companies, thereby improving their ability to secure additional capital. ARAF II's resilience strategy also aligns with some of GCF's current in-country projects, including defending the vulnerable Nile Delta against coastal flooding damage to improve the resilience of rural communities (FP053).
 - ARAF II's resilience strategy also aligns with other GCF funded public sector projects, as provided below. ARAF intends to continue strengthening its engagement with public sector stakeholders towards ensuring alignment.
 - a. Defending the vulnerable Nile Delta against coastal flooding damage to improve the resilience of rural communities (FP053)
 - b. Supporting rural communities through the planting of argan orchards and promoting sustainable agricultural practices to foster sustainable development, build resilience and support climate mitigation (FP022)
 - c. Providing sustainable irrigation to improve the climate resilience of subsistence oasis farming and larger-scale date and olive agriculture within the Boudnib Valley (FP042)
 - d. Supporting farmers in the Saïss Plain, in the Fès-Meknès region of Morocco, adapt to water scarcity brought about by climate change (FP043)
- Technical Assistance: ARAF II is also raising a technical assistance facility (the "TAF"), which aims to further support its equity investments through grants intended to enhance impact potential and support sustainable business growth and development. Based on its experience and track record in ARAF I, ARAF II is well positioned to raise and implement the facility, thereby providing an additional source of adaptation financing to the agricultural sector and consequently, smallholder farmers.

ALIGNMENT OF ARAF II'S ACTIVITIES WITH GCF'S PRIVATE SECTOR STRATEGY

28. ARAF II is closely aligned to the key priorities set out in GCF's Private Sector Strategy (19 May 2022):

- Promote a conducive investment environment for combined climate and economic growth activities: ARAF II project activities will demonstrate the region's attractiveness for private equity investments. Alongside other investors, the ARAF II aims to promote the development of a climate investment ecosystem, thereby contributing to the attraction of additional FDI. Learnings from investment activities will also contribute to the body of knowledge, which can be instrumental in policy formation within the region.

¹³² Ibid

- Accelerate innovation for business models, financial instruments, and climate technologies: ARAF II will seek to invest in high-growth potential agri-businesses, which continually innovate to enable climate resilience among smallholder farmers. The Fund will also seek to invest through equity and quasi-equity instruments, representing a range of financial instruments tailored to meet the financing needs of the companies, while accommodating diversified stages of growth. Co-investments with debt-like facility providers will also enable portfolio companies to benefit from a wide range of favorable financial instruments and terms. The TAF is designed to provide grant financing that is expected to be leveraged to accelerate portfolio companies' technological research and growth.
- De-risk market-creating investments to crowd in private climate finance: GCF's First Loss contribution to ARAF II and the TAF plays a critical role in crowding in private capital into the sector by de-risking the investment opportunity and providing a more attractive risk-adjusted return expectation for private investors.
- Strengthen domestic and regional financial institutions to scale up private climate finance: ARAF II will attempt to collaborate with local and regional financial institutions on co-investment opportunities. The Fund will also seek to support portfolio companies' efforts in securing local financing from commercial banks, thereby minimizing foreign currency risk.

B.2 (a). Theory of change narrative and diagram (max. 1500 words, approximately 3 pages plus diagram)

29. ARAF II's Theory of Change draws substantially from ARAF's I Theory of Change and subsequent experience and results. The Theory of Change expands on the Fund's goal of achieving a paradigm shift in the agriculture ecosystem by promoting climate-resilient agriculture value chains in Africa. The primary goal of ARAF II is to demonstrate that investing in agri-businesses that address key challenges faced by smallholder farmers can lead to sustainable and climate-resilient agricultural development. Shared below is a summary of how ARAF II's Theory of Change serves to shift the development pathway towards greater climate resilience of smallholder farmers:

- **Impact/ Paradigm Shift:**

30. **"IF** ARAF II fund provides financial and technical support to enable agribusinesses to scale up, improve their services to meet the needs of smallholder farmers, and become more inclusive, **THEN** agriculture value chains will become climate resilient, and smallholder farmers will be better equipped to absorb climate change-related shocks, **BECAUSE** unlocking finance for early-stage companies will enable them to scale up innovative agribusiness models, thereby providing critical services to smallholder farmers and enhancing their livelihoods"

31. The theory of change proposes that addressing key challenges faced by smallholder farmers can lead to the creation of resilient agricultural value chains, fostering increased productivity and profitability for vulnerable farmers while generating strong financial returns for both our portfolio companies and investors. ARAF II aims to demonstrate the climate resilience of agricultural value chains by investing in sustainable agribusinesses, thereby attracting significant private capital for climate-resilient agriculture in climate vulnerable geographies across Africa. (In Africa and globally, the private sector has consistently financed less than 3% of adaptation activities from 2019–2022. A substantial portion of these funds come from philanthropic sources. The opportunity for commercial financiers and private enterprises to develop and finance adaptation solutions, products and services is enormous¹³³. To close Africa's climate financing gap by 2030, approximately \$213.4 billion will need to be mobilized annually from the private sector, to complement constrained public resources. Africa received \$4.2 billion in private climate finance in 2019/2020, 14 percent of total climate finance

¹³³ Climate Policy Initiative. "State and Trends in Climate Adaptation Finance 2023." *Global Climate Center on Adaptation*, Dec. 2023, https://gca.org/wp-content/uploads/2023/12/State-and-Trends-in-Climate-Adaptation-Finance-2023_WEB.pdf. Accessed 11 Apr. 2024.

flows of \$29.5 billion. It requires \$242.4 billion a year on average until 2030—\$2.7 trillion over 2020–30—to implement its climate action expressed in the latest submitted Nationally Determined Contributions (NDCs¹³⁴.)

32. When investing in value chains, ARAF II seeks to continue to provide capital to companies that work closely with farmers and that provide bundled and relevant goods and services (i.e. solar irrigation pumps, farmer training, and financial products) that aim to de-risk farming and help farmers adapt when adverse climate events happen. Bundled services provided together in a commercially viable way (such that companies are financially stable while still having high impact) ensures that farmers can become more climate resilient, and also enables companies that source from and sell to those farmers to become commercially sustainable in the face of changing climactic conditions. The upstream and downstream impact on the value chain underscores the necessity of a holistic approach to effectively meet farmer needs. According to the Rural & Agriculture Finance Learning Lab's 2019 State of the Sector report¹³⁵, service providers offering integrated packages best suit the needs of smallholder farmers. These models, anchored in consistent and high-value market access, have a significant impact as the bundled services cover a wide-range of farmer needs, including finance, insurance, inputs, training, advisory support, technology, and market access services.
33. Expanding its focus beyond the initial geographic boundaries, ARAF II seeks to unlock transformative opportunities in new and diverse African regions, recognizing the unique challenges and opportunities each presents. This geographical evolution reflects the adaptability of the theory of change to address the multifaceted challenges smallholder farmers face in different environments.

▪ **Barriers:**

34. To ensure the viability of the fund and sustainability of ARAF II's impact, the team researched and analysed potential barriers for the fund, agribusinesses, and climate vulnerable smallholder farmers. The theory acknowledges the barriers that could hinder the achievement of outcomes and impact, such as the susceptibility of smallholder farmers to climate change, their lack of information, limited access to markets and financing, limited public and private funding for enterprises and foreign currency exchange risk.
35. **Lack of access to climate adaptation capital and practices leaves SHFs most vulnerable to the impacts of climate change:** Smallholders, a group often overlooked, face some of the world's most severe challenges¹³⁶. They represent half of the world's undernourished population, three-quarters of Africa's malnourished children, and the majority of those living in absolute poverty globally. Despite their struggles, they play a crucial role in ensuring food security, fostering poverty-reducing agricultural growth, preserving dwindling natural resources, and buffering against the worst impacts of climate change¹³⁷. Across Africa, smallholder farmers bear the brunt of climate change, yet they are pivotal contributors to their countries' economic vitality, constituting a significant portion of the labor force and producing the majority of food in the region. Unfortunately, their livelihoods are under constant threat from floods, droughts, rising temperatures, sea level rise, aridity, yield declines, and shifts in crop suitability¹³⁸. Despite these challenges, international efforts to support adaptation have been sluggish and inadequate. The UN's latest Adaptation Gap Report (2022) highlights a glaring disparity: current levels of international adaptation finance for developing nations fall drastically short, estimated at 5-10 times lower than what is required¹³⁹.

¹³⁴ African Development Bank Group. "Private Sector Financing for Climate Action and Green Growth in Africa." *Afdb*, June 2023, https://www.afdb.org/sites/default/files/aeo_2023-chap2-en.pdf. Accessed 11 Apr. 2024.

¹³⁵ ISF Advisors (2019) [Rural and Agriculture Finance State of the Sector Report](https://www.afdb.org/sites/default/files/aeo_2023-chap2-en.pdf)

¹³⁶ [Factsheet SMALLHOLDERS.pdf \(fao.org\)](https://www.afdb.org/sites/default/files/aeo_2023-chap2-en.pdf)

¹³⁷ United Nations, *Africa Renewal*, "Towards a food-secure Africa: Experts urge empowerment of smallholder farmers." December 2017-March 2018, Obonyo, Raphael: <https://www.un.org/africarenewal/magazine/december-2017-march-2018/towards-food-secure-africa>

¹³⁸ CPI (2022). The landscape of Climate Finance in Africa. <https://www.climatepolicyinitiative.org/wp-content/uploads/2022/09/Landscape-of-Climate-Finance-in-Africa.pdf>

¹³⁹ Adaptation Gap Report, 2022. . UNEP-CCC. URL <https://unepccc.org/adaptation-gap-reports/> (accessed 5.20.24).

36. **Lack of information on climate risks, inputs, resilient agri-practices, and financing:** Smallholder farmers face difficulties in improving their lives due to limited access to quality farming inputs, modern agricultural knowledge, market information, and affordable financial services that match farming sales cycles. Their low incomes, minimal assets base, and the uncertainty and volatility of their incomes hinder smallholder farmers from adopting innovative solutions, as they are hesitant to experiment with new (to them) and untested solutions, fearing the risk of losing all their savings or falling into perpetual debt¹⁴⁰. Additionally, these farmers lack downside protection like insurance. Due to a combination of supply and demand factors, smallholder farmers in Sub-Saharan Africa have historically faced significant barriers in accessing risk-management options, with less than 3% of them having agricultural insurance coverage¹⁴¹.
37. ARAF's extensive experience working with farmers has provided valuable insights into the challenges they encounter in this regard. Our observations indicate that most smallholder farmers are not adequately informed about insurance, find it difficult to grasp the concept, and harbor suspicions about the promises of claims payouts. Moreover, the fund's experience has shown that farmers often lack the financial literacy necessary to engage with complex financial products. Additionally, the costs associated with insurance products can be prohibitive for them, and the payout mechanisms can be convoluted and slow. Furthermore, the payout amounts may not accurately reflect the actual losses incurred by individual farmers. These observations are further supported by data from ARAF's annual climate resilience surveys. For instance, survey findings reveal that 47% of the farmers in our portfolio were unaware of insurance altogether. Among the 53% who were aware of insurance, 24% did not know where to purchase it from, 18% did not perceive the need for it, and 8% cited financial constraints as a barrier to purchasing insurance¹⁴². Notably, only 3% of farmers surveyed had insurance coverage, highlighting the pressing need for increased awareness and improved accessibility to insurance options among smallholder farmers in the region.
38. **Lack of access to formal commodity markets, forcing farmers to rely on exploitive intermediaries and middle markets to sell their crops:** Supply chains for agriculture in sub-Saharan Africa are fragmented. In analyzing major agricultural-input chains in eight countries, McKinsey found that inputs changed hands at least three times before they reached the farmer, moving from national importers to regional distributors to "agro-dealers" (which are typically small, rural shops). On average, this fragmented supply chain led to a 20 to 50 percent markup over import prices across major agricultural inputs, with about one-third to one-half of that captured as margin by the distributors and retailers in the chain¹⁴³. On the other hand, smallholder farmers, across geographies, face challenges accessing formal commodity markets, often relying on exploitive intermediaries for crop sales, resulting in minimal returns, less than 5% of the final sale price¹⁴⁴. Lack of knowledge about climate-appropriate crops, coupled with limited market proximity, hinders crop selection.¹⁴⁵
39. For example, in Ghana, the agriculture sector grapples with challenges rooted in a fragmented value chain, affecting farmers, agro-dealers, aggregators, and food processors alike. Smallholder farmers particularly contend with inadequate market access and unfair pricing practices. Furthermore, the absence of digitization and record-keeping among farmers presents an additional barrier, impeding their ability to engage with formal financial institutions¹⁴⁶. In Ethiopia, as few as 10 percent of farmers have market access in some areas because

¹⁴⁰ ISF. "Protecting Growing Prosperity: Agricultural Insurance in the Developing World." *ISF Advisors*, Sept. 2018, https://isfadvisors.org/wp-content/uploads/2020/06/sep_2018_isf_syngneta_insurance_report_final.pdf. Accessed 5 Apr. 2024.

¹⁴¹ ISF. "Protecting Growing Prosperity: Agricultural Insurance in the Developing World." *ISF Advisors*, Sept. 2018, https://isfadvisors.org/wp-content/uploads/2020/06/sep_2018_isf_syngneta_insurance_report_final.pdf. Accessed 5 Apr. 2024.

¹⁴² ARAF Lean Data survey results

¹⁴³ Goedde, Lutz, et al. "Lutz Goedde." *McKinsey & Company*, 15 Feb. 2019, <https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-africas-agricultural-market>. Accessed 11 Apr. 2024.

¹⁴⁴ Lars Perner, Ph.D. *Production Costs, Demand, and Competition*. https://www.consumerpsychologist.com/food_Production_Costs.html Accessed 17 Mar. 2024.

¹⁴⁵ Nosipho Hlophe-Ginindza, Samkelisiwe, and N. S. Mpandeli. 'The Role of Small-Scale Farmers in Ensuring Food Security in Africa'. *Food Security in Africa*, IntechOpen, 20 Jan. 2021. Crossref, doi:10.5772/intechopen.91694.

¹⁴⁶ AGRA. "Environmental Stewardship in Smallholder Agriculture in Ghana." *AGRA*, 13 June 2023, <https://agra.org/archive/environmental-stewardship-in-smallholder-agriculture-in-ghana/>. Accessed 11 Apr. 2024.

of greater population dispersion and less-developed infrastructure. This low market access suggests a potentially higher cost per farmer to implement measures at scale¹⁴⁷.

40. Absence of extension services and training makes it difficult for farmers to adopt climate-resilient practices. The lack of extension services disproportionately impacts women: the FAO estimates that the access to extension services among women is low, with only 4.3 percent having access. Extension delivery is primarily a government responsibility in Ghana, though many other actors are involved including development partners and non-governmental organizations.¹⁴⁸ Limited access to quality inputs compounds their predicament. Addressing these access issues through increased price transparency, market information, and improved access can empower farmers, allowing them to capture a greater portion of the sales price, enhance income, and build resilience against future emergencies.
41. **Limited availability of public and private financing available to support growth of early-stage agribusinesses:** Globally, current climate adaptation costs surpass available international public finance for adaptation by at least 2 to 3 times. By 2030, anticipated adaptation costs for key sectors like agriculture, forestry, fishery, water supply, human health, coastal protection, and infrastructure are expected to range from US\$140-300 billion annually, while current international public finance for adaptation stands at approximately US\$22.5 billion per year¹⁴⁹. Agriculture, Forestry, and Other Land Use receive only 16% of Africa's total climate finance despite their critical impact on food security¹⁵⁰, gender dynamics, biodiversity, and water conservation. Securing financing for Africa's NDCs poses a significant challenge, requiring increased prioritization of key sectors like Agriculture, Forestry, and Other Land Use¹⁵¹.
42. **Macroeconomic factors, including forex risks, affect capital availability and agribusiness operations and operations.** Macroeconomic factors, particularly forex risks, significantly influence the capital availability and operational landscape of agribusiness in Africa. Currency fluctuations impact input costs, debt servicing, and overall profitability for agribusinesses. The susceptibility to forex risks is heightened by the exposure of many African economies to external shocks and global market dynamics. Exchange rate volatility can affect the competitiveness of agricultural exports and the cost of imported inputs, impacting the financial health of the agribusiness sector. Additionally, factors like inflation, interest rates, and overall economic stability contribute to the macroeconomic context, influencing the investment climate and capital availability for agribusiness operations in the region¹⁵². Addressing these challenges necessitates strategic planning, effective risk management, and policies that promote economic resilience within the African agribusiness sector.

▪ **Assumptions:**

Assumption 1: *ARAF invests in countries with a supportive policy and regulatory environment.*

43. ARAF II aims to build off the supportive framework of national adaptation strategies in its target countries, strategies and frameworks which are expected to remain in place in order for the fund to be implemented effectively. ARAF II intends to focus on countries with supportive policy and regulatory environments, allowing the fund to build and expand a robust pipeline of agribusinesses specializing in climate adaptation solutions. For example, ARAF II is keen on further investing in Kenya due to its favorable government policies and

¹⁴⁷ Frost, Chania, et al. "Chania Frost." *McKinsey & Company*, 28 Feb. 2023, <https://www.mckinsey.com/industries/agriculture/our-insights/what-climate-smart-agriculture-means-for-smallholder-farmers>. Accessed 11 Apr. 2024.

¹⁴⁸ Lamontagne-Godwin, Julien. "Quality of Extension Advice: A Gendered Case Study from Ghana and Sri Lanka." *The Journal of Agricultural Education and Extension*, Jan. 2017, [Quality of extension advice: a gendered case study from Ghana and Sri Lanka](#).

¹⁴⁹ Programme, United Nations Environment. "Step up Climate Change Adaptation or Face Serious Human and Economic Damage – UN Report." *UN Environment*, <https://www.unep.org/news-and-stories/press-release/step-climate-change-adaptation-or-face-serious-human-and-economic>. Accessed 5 Apr. 2024.

¹⁵⁰ Nosipho Hlophe-Ginindza, Samkelisiwe, and N. S. Mpandeli. 'The Role of Small-Scale Farmers in Ensuring Food Security in Africa'. *Food Security in Africa*, IntechOpen, 20 Jan. 2021. Crossref, doi:10.5772/intechopen.91694

¹⁵¹ Climate Policy Initiative, (September 2022), [Climate Policy Initiative 2022 Report](#)

¹⁵² Constraints to private investment in the poorest developing countries - <https://www.nathaninc.com/wp-content/uploads/2017/09/Constraints-on-Investment-in-the-poorest-developing-countries.pdf>

initiatives aimed at the agricultural sector, offering an inviting environment for investors by promising long-term stability and substantial returns. Strategic investments in Kenya's agriculture sector not only contribute to economic prosperity but also enhance food security. Kenya boasts one of the highest agricultural productivity levels in the East African Community (EAC) region. According to the Kenya Investment Authority, 70% of the country's exports are agriculturally focused, and the sector employs 85% of the rural workforce¹⁵³. With an annual growth rate of almost 5%, the sector demonstrates significant potential for further expansion. Kenya invites investors to explore business opportunities across the entire agribusiness value chain, spanning from primary production to value addition and food processing. Agribusiness already attracts 20% of the total Foreign Direct Investment (FDI) in the region¹⁵⁴, underscoring its immense investment potential. The Kenyan government actively promotes investment in agriculture and agribusiness through various incentives and policies designed to facilitate FDI and enhance the ease of doing business. According to the World Bank's Ease of Doing Business Index, Kenya has made notable progress, ranking 56th out of 190 countries as of 2019¹⁵⁵. The country offers a favorable regulatory framework with streamlined processes and reforms aimed at attracting foreign investment. Additionally, Kenya has signed numerous Bilateral Investment Treaties (BITs) with various countries to encourage and protect foreign investments, providing legal protections and standards for foreign investors, including provisions on expropriation, dispute resolution, and repatriation of funds¹⁵⁶.

Assumption 2: *ARAF will be able to identify a pipeline of agribusinesses that build attractive climate adaptation solutions*

44. ARAF II aims to capitalize on its current pipeline, harnessing the expertise and connections of a committed local team stationed in East, West, and North Africa. The fund intends to prioritize the development and expansion of a strong pipeline of agribusinesses specializing in climate adaptation solutions. This endeavor seeks to foster the growth of impactful and financially viable agricultural enterprises across the aforementioned regions, offering innovative solutions to support climate-vulnerable smallholder farmers. The team has diligently curated market intelligence to ensure a robust pipeline of prospective investment opportunities.

Assumption 3: *Public and private partnerships are able to catalyse additional investment in this high-risk ecosystem.*

45. The Theory of Change for ARAF II hinges on the collaboration between public and private entities to stimulate further investment in what is recognized as a high-risk environment. ARAF II aims to foster strategic partnerships for cooperative ventures, joint investments, and the advancement of climate-adaptive solutions within Africa's agriculture sector. The fund also intends to actively pursue partnerships with institutions to maximize the impact of our investments and disseminate insights to a broader audience. These partnerships have facilitated technical assistance projects aimed at supporting our portfolio companies in various aspects, including the provision of support for an ARAF II portfolio company to develop their crop sourcing strategy in Ghana.

Assumption 4: *Political environment remains stable, and the local currencies maintain value.*

46. The ARAF II Theory of Change also acknowledges that stability in the political environment and the preservation of local currency value are critical factors for long-term planning and sustainable investment. Addressing these challenges will require strategic planning, effective risk management, and policies aimed at fostering economic resilience within the African agribusiness sector. Similar to ARAF I, the fund anticipates companies to develop

¹⁵³ "Agriculture." *Kenya Investment Authority (KenInvest)*, 9 Nov. 2017, <https://www.invest.go.ke/agriculture/>. Accessed 8 Apr. 2024.

¹⁵⁴ Sunday, Frankline. "Kenyan Agri-Tech Firms Raise Sh1.3b Foreign Capital." *The Standard*, 13 May 2018, <https://www.standardmedia.co.ke/smart-harvest/article/2001280177/kenyan-agri-tech-firms-raise-sh13b-foreign-capital>. Accessed 8 Apr. 2024.

¹⁵⁵ World Bank Data. "World Bank Open Data." *World Bank Open Data*, <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ?locations=KE>. Accessed 17 May 2024.

¹⁵⁶ Suedi, Amne. *An Overview of Investment Regulations in Kenya and Tanzania: 6 Points to Consider Before Investing in Kenya and Tanzania*. 22 Sept. 2023, <https://www.linkedin.com/pulse/overview-investment-regulations-kenya-tanzania-6-points-amne-suedi>.

strategies to help them mitigate macroeconomic issues such as diversifying sales between local and export markets, thereby generating foreign exchange income and safeguarding against currency fluctuations. Additionally, strategies such as utilizing local currency debt and integrating backward integration to manage costs are crucial elements for success.

Assumption 5: *ARAF will be able to reach smallholder farmers, particularly women, who face barriers to accessing climate-resilient practices, finance, and training.*

47. ARAF II's Theory of Change recognizes the importance of women in agriculture and that the disproportionate vulnerability of women to climate change arises from a complex interplay of social, economic, and cultural factors. On average, women constitute 50% of the agricultural labor force in sub-Saharan Africa and spend 30-80% of their time engaged in agricultural activities.¹⁵⁷ Female smallholders are often perceived as more reliable suppliers and as being more likely to apply what they learn in training, and to adopt new farming techniques¹⁵⁸. These farmers face four critical constraints in agriculture¹⁵⁹ including limited access to markets due to societal norms around women's mobility and voice; time poverty due to the additional burden of care work and relegation to the private sphere; limited access to financing due to low access to collateral, poorly tailored financing, as well as a fear of credit; and insufficient technical knowledge to enable high productivity¹⁶⁰.
48. These constraints lead to increased vulnerability for women and are compounded by a lack of access to crucial information about adaptation strategies, best production practices, and weather patterns, further decreasing their productivity compared to male smallholder farmers. Women-owned agribusinesses in Africa encompass a diverse range of scales, sectors, and business models, categorized into four groups: independent smallholder producers, producers for export, micro, small, and medium agro-enterprise owners, and large agri-enterprise owners. However, occupational and crop segregation often relegates many female entrepreneurs to low-value crops and sectors with limited earnings potential. Regardless of their cultural and socio-economic diversity, women face similar contextual challenges across the African continent, influenced by social and gender norms, including limited access to resources, markets, and supportive services such as credit and financial services¹⁶¹, as well as legal and regulatory barriers¹⁶². This underscores the need for targeted interventions to address these multifaceted constraints and empower women in agribusiness value chains¹⁶³. ARAF II is anticipated to be built with these challenges in mind and focus on innovative pipeline companies that support farmers to overcome these barriers.

▪ **Activities/ Components:**

Activity 1.1: ARAF II Fundraising, Build on existing pipeline, Screen new target markets

49. ARAF II aims to successfully raise \$120MM for investments and secure \$12MM in technical assistance (TA). When secured, these funds are intended to be used to provide equity and quasi-equity capital to twenty early-stage platform agri-businesses that provide climate adaptation solutions for smallholder farmers in East, West and North Africa. ARAF II is poised to continue this legacy of ARAF I, which successfully demonstrated the

¹⁵⁷ FAO 2011 The state of food and agriculture: women in agriculture, closing the gender gap for development, <https://www.fao.org/3/i2050e/i2050e.pdf>.

¹⁵⁸ ACDI/VOCA 2014, The business case for women's participation in agricultural cooperatives and MADE 2016: Providing input credit for women out-growers is a good return on investment (case study)

¹⁵⁹ Duckett, Maryellen Kennedy. "Empowering Female Farmers to Feed the World." *Culture*, 13 Mar. 2019, <https://www.nationalgeographic.com/culture/article/partner-content-empowering-female-farmers> . Accessed 15 Mar. 2024.

¹⁶⁰ AgDevCo 2022

¹⁶¹ Koning, Antonique, Joanna Ledgerwood, and Nisha Singh. 2021. "Addressing Gender Norms to Increase Financial Inclusion: Designing for Impact." Technical Guide. Washington, D.C.: CGAP.

¹⁶² World Bank, (2019). Profiting from parity: Unlocking the Potential of Women's Business in Africa. Washington, DC: World Bank.

¹⁶³ AGRA. "Women in Agribusiness Value Chains in Africa: A White Paper on Constraints and Opportunities for Developing a Gender-Responsive Agribusiness Sector." AGRA, Oct. 2021, https://agra.org/wp-content/uploads/2022/05/Women_in_agribusiness_value_chains_in_Africa.pdf.

commercial viability of the sector by investing in, developing, and scaling sustainable agribusinesses. ARAF I's proven track record of deploying capital, complemented by Acumen's expertise in the sector, attests to the fund's robust financial management. ARAF II aims to replicate and build upon these successes, striving for similar impactful and financially sustainable outcomes for its investors.

50. ARAF II expects to build on existing pipeline, leveraging the strength and networks of a dedicated local team based in both East and West Africa (with additional team members being added in North and West Africa as ARAF II launches). This team has meticulously developed market intelligence ensuring a strong pipeline of potential investment opportunities. With deep market knowledge acquired through Fund I and researching for Fund II, the team has successfully built a robust pipeline of impactful and investable agri-businesses across East, West, and North Africa that offer innovative solutions to address the needs of climate vulnerable smallholder farmers, including innovations in insurance, data driven early warning systems, and low-cost artificial intelligence-based soil testing. The Fund's Management team, anchored in East Africa, is expanding into West Africa to further engage directly with potential pipeline companies. The ARAF investment team employs a multifaceted approach, identifying innovative companies through diverse channels such as sector conferences, entrepreneurial networks, referrals, sector networks, one-on-one meetings, and co-investor collaborations.
51. Prioritizing climate-resilient agribusinesses led by strong entrepreneurs and top-quality management teams; the team recognizes leadership as a pivotal factor in startup success. The ARAF team seeks for companies with the following criteria: providing innovative solutions within one of ARAF's three investment pillars, demonstrating impact potential, early revenue generation from operations and/or pilots, promoters identified as potential leaders in their sub-sectors with a strong commitment to the impact mission of their enterprise, teams capable of executing a business plan and pivoting as needed while maintaining unwavering commitment to ethical business practices, and preferably being the first mover and innovator within one of ARAF's sub-sector investment pillars. Additionally, Acumen's established operations in Africa are expected to play a crucial role in setting up ARAF II operations, providing ongoing support for pipeline development and facilitating access to the local network.

Activity 1.2: Invest in local agribusinesses across three strategic themes: Aggregator Platforms, Digital Platforms, and Innovative Financial Solutions

52. ARAF II aims to continue investing in early-stage platform businesses that bridge the gaps in accessing critical information, affordable financing, modern inputs, and formal markets for smallholder farmers, with a specific focus on companies demonstrating scalability and replicability in their business models. The ARAF II team sees smallholder farmers as the backbone of African food systems given that more than half¹⁶⁴ of sub-Saharan Africa's workforce is employed in agriculture, and 90% of businesses¹⁶⁵ in the agri-food sector are small and medium enterprises (SMEs)¹⁶⁶. By supporting and investing in these businesses, ARAF II hopes to build and strengthen Africa's food systems for the foreseeable future.
53. Prior to investment, ARAF appraises the companies' strategy, governance, ESG risks, climate resilience potential, business plan, financing, and distribution plan to evaluate its ability to scale and replicate in other markets. Post investment, the fund supports businesses in expanding into new markets and geographies, launching new product lines, and implementing new strategies. At this stage, the ARAF team prioritizes assessing portfolio companies based on their impact, product-market fit, management team, unit economics, potential for scale, and the implementation of Environmental, Social, and Governance (ESG) practices. One

¹⁶⁴ WorldBank. "World Bank Open Data." *World Bank Open Data*, <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=ZG>. Accessed 5 Apr. 2024.

¹⁶⁵ "Why Agri SMEs." *SAFIN Network*, 9 Feb. 2023, <https://safinetwork.org/why-agri-smes/>. Accessed 5 Apr. 2024.

¹⁶⁶ Caitlin Ferguson and Sabrina Lee Sanchez. "Agriculture Entrepreneurs Are the Backbone of African Food Systems." *Acumen*, 6 Oct. 2023, <https://acumen.org/blog/agriculture-entrepreneurs-backbone-african-food-systems/>. Accessed 5 Apr. 2024.

crucial consideration is the commercial viability and scalability of these companies, which relies on smallholder farmers' affordability of their offerings. During initial evaluations, ARAF examines farmers' willingness to pay, assesses the prevalence of other value chain players offering free or credit-based services, and conducts field visits to gauge farmers' ability to pay and confirm the competitiveness of products and services. Continuous monitoring involves evaluating farmers' ability to pay through annual surveys and board discussions and implementing interventions like subsidy models and provision of credit to bolster farmer liquidity and willingness to pay.

54. ARAF I's portfolio composition across its investment themes is split as follows: pure-play aggregator platforms account for 49.7% of the portfolio, and companies that cut across 2 or more of the investment themes represent 48.2% of the portfolio. This is reflective of the market opportunity at the time. In a similar vein as ARAF I, ARAF II intends to continue to assess the market for platform businesses that serve smallholder farmers and, who in our view, are best positioned to deliver strong financial performance and climate adaptation impact.

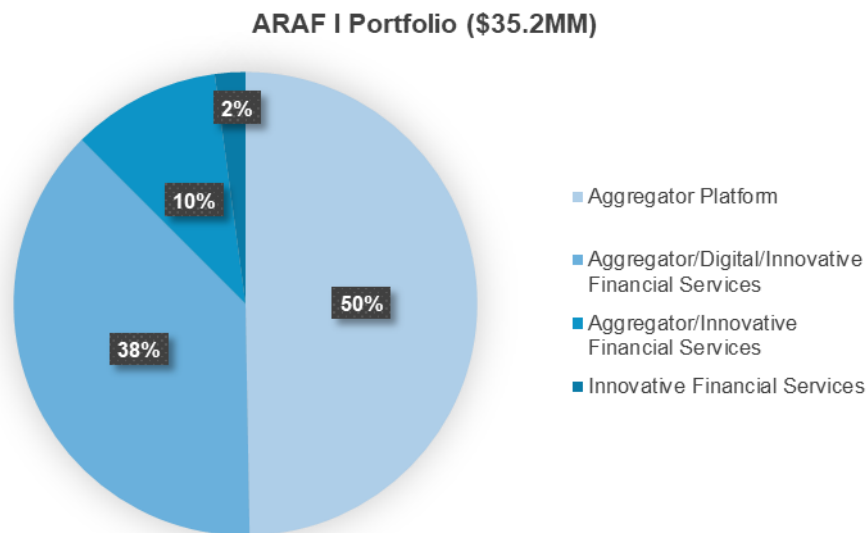


Figure 3: ARAF portfolio breakdown

- **Aggregator Platforms:** Agri-processors bypass intermediaries to procure directly from farmers, addressing two or more key farmer access needs, such as improved inputs or affordable credit bundled with services such as extension services and trainings, and access to markets. ARAF II expects up to half of its portfolio to be aggregators. Below are examples of such business models from the current ARAF I portfolio.
 - **Company A:** A horticulture company that promotes regenerative agri practices and connects its out-growers in Kenya with local and export markets.¹⁶⁷ The company enables farmers to become less vulnerable to climate change by enabling increased crop productivity, decreased post-harvest losses, increased incomes, and the production of healthier and medium to high value horticultural crops through the provision of inputs, training, and offtake.
 - **Company B:** The company produces branded tomato paste by sourcing tomatoes from out growers in Nigeria. It ensures that farmers have access to high quality inputs, training, and irrigation infrastructure, thereby increasing tomato yields to support the supply for its tomato processing facility.

¹⁶⁷ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

- **Digital Platforms:** Information, communication, and technology (ICT) agri-businesses leverage digital platforms to link farmers directly with input suppliers and off-takers to bypass exploitative intermediaries. They also push information like farming knowledge, weather, and market prices to farmers, and connect them with financial services and other services to increase their productivity.
 - **Company C:** A Ghana-based agtech company that leverages its technology platform to provide smallholder farmers with access to efficient and effective training, farm inputs and markets. It achieves this through its multi-stakeholder platform, which is an end-to-end solution that enables the digitization of the supply chain from farmers to off-takers.
 - **Company D:** A tech-enabled company that sources fruits and vegetables from farmers and distributes the goods to the local formal and informal distribution channels in Tanzania.¹⁶⁸ The company has improved market access for smallholder farmers by modernizing supply chain and distribution logistics leading to increased income (up to 20%) and decreased post-harvest losses (less than 1%¹⁶⁹) for smallholder farmers.

- **Innovative Financial Solutions:** These companies provide access to formal financial services like affordable credit, saving products, insurance solutions, etc., enabling farmers to purchase improved inputs or other productive assets to diversify their incomes, increasing their livelihoods and their resilience against negative impacts of climate change.
 - **Company E:** The company specializes in streamlining the design, distribution, and operations of parametric insurance products, with a primary focus on providing farmers access to weather-related agriculture insurance. Their aim is to support farmers who are significantly affected by weather events by simplifying insurance processes and facilitating access to crucial coverage.
 - **Company F:** The company engages in the design, sale, financing, and provision of after-sales support for solar-powered water pumps, primarily targeting farmers in East and West Africa. These water pumps empower households to transition to high-value crops, such as tomatoes and other horticulture crops, by providing access to water. Additionally, they enable the expansion of cultivated land, support crop growth during the dry season, and enhance the productivity of livestock.

Activity 1.3: Post investment management, Leverage capital and Manage exits

55. Following the investment phase, ARAF II strategically transitions to post-investment management, concentrating efforts on effective capital leverage and exit management. ARAF hopes to facilitate the growth and expansion of portfolio companies by providing vital guidance and establishing robust governance structures, aiming to actively influence outcomes through board participation. ARAF I holds voting board seats in 90% of its portfolio companies and board observer seats in the remaining 10%. Moving forward, ARAF II expects to maintain comparable governance support for its portfolio companies.

56. Post-Investment, the Fund supports companies in developing key financial and operational Key Performance Indicators (KPIs), aids in recruitment processes, emphasizes corrective actions following annual audits, and periodically reviews KPIs and metrics to identify operational system failures. The fund team also expects to conduct annual reviews of the fund's portfolio, analyzing company valuations, compliance, and risk management. This comprehensive oversight ensures that early-stage businesses focus on and are held accountable for the most critical levers of growth and effectiveness.

57. Simultaneously, the investment team evaluates follow-on funding opportunities with a clear understanding of the company's expansion plans, execution potential, and revenue projections over the holding period. For as long as a company is in ARAF's portfolio, ARAF intends to offer key introductions to potential funders and key

¹⁶⁸ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

¹⁶⁹ Company data

partners. The Fund anticipates exiting its companies within 5-7 years through share sales to strategic or financial investors, or via structured self-liquidating instruments. These expectations, integral to the evaluation process, guide ARAF II's investment decisions.

Activity 1.4: Monitor portfolio on robust impact metrics (including ESG, Gender, Climate)

58. At the beginning of its portfolio management phase, ARAF aligns with companies on key management practices, including board representation, reporting obligations, ESG and Gender Action Plans, a 100-day plan, annual surveys, and monthly management calls. ARAF actively monitors ESG matters from the point of investment, assessing progress on action plans and evaluating new risks, including gender statistics. ARAF partners with third-party providers to conduct farmer well-being surveys to measure climate adaptation impact, comparing results to benchmarks and integrating insights into company strategies. Financial, social, and ESG metrics are tracked against targets, with regular engagement on performance and future objectives. Quarterly and annual reports are shared with limited partners, covering financial performance, impact metrics, and updates on ESG progress. Ongoing market trends and operational metrics are monitored, and investments may be tranching based on milestone achievements.
59. In addition to the core operational activities outlined, ARAF II plans to emphasize transparent communication and collaboration with its key stakeholders. The fund intends to provide comprehensive annual performance reports to its Limited Partners (LPs), including the Green Climate Fund (GCF). These reports are expected to offer detailed insights into the fund's progress, financial performance, and impact metrics. Furthermore, ARAF II anticipates actively engaging with National Designated Authorities (NDAs) on a quarterly and annual basis. The team plans to share regular progress reports with NDAs, fostering ongoing dialogue and collaboration. Additionally, ARAF II seeks to reach out to a broader spectrum of stakeholders, including government entities, Civil Society Organizations (CSOs), and industry associations. By engaging with these stakeholders annually, the fund aims to gather valuable feedback, align strategies, and ensure the effective implementation of its projects.

Activity 2.1 and 2.2: Set up and implementation of the Technical assistance for enhancing climate adaptation and gender initiatives, ESG, business development, impact measurement.

60. In addition to investment capital, ARAF II aims to provide a US\$12M grant-funded Technical Assistance Facility (TAF) to further support the profitable growth of portfolio companies. ARAF intends to use the TA facility to accelerate impact within its portfolio by providing access to funding for valuable, non-core initiatives throughout the target company lifecycle. The type of support will vary depending on specific portfolio company needs (e.g., training farmers on product usage, support in measuring impact, access to investors etc.). The TA support is expected to be provided along four main areas: 1) Climate adaptation interventions including gender specific initiatives and training and educating farmers on climate resilient practices and a focus on female farmers; 2) Impact evaluation and measurement support to amplify the impact of portfolio companies; 3) Business development services and other management trainings; and 4) ESG/Audit and Legal: TA Audit, Legal, ESG technical assistance and reporting, etc. TA grants are made available to companies following the ARAF II investment and will range in size from \$10,000-40,000. Expected TA projects samples include farmer training and organic certification, staff training, and consultancies for ESG compliance and new market entry. Additionally, ARAF expects to use the learnings from these TA projects to support regional climate and agriculture-related initiatives at the public and private sector levels. Members of the team will aim to contribute insights from the fund's investment experience and research to wider discourse and knowledge sharing on agriculture and smallholder farmers, impact investment and measurement, climate change and adaptation, etc., by attending conferences, participating on panels and forums, including for such events as COP and African Food Systems Forum (also known as AGRF).
61. ARAF II intends to assess, track, and measure social impact on three dimensions 2, i.e., 1) climate resilience 2) farmer well-being, and 3) ESG/Gender compliance. ARAF aims to survey between 800-1000 farmers (a

subsection of the farmers engaging with its portfolio companies) to better understand climate resilience and farmer well-being (dimensions 1 and 2). ARAF intends to work with a third party, to conduct a 76-question survey via phone in the farmers' local languages. These surveys offer ARAF and its portfolio companies a useful feedback loop into the farmer experience, while allowing ARAF to measure changes in impact over time. The reports are also shared with ARAF's investors on an annual basis, further improving the processes with additional feedback.

62. **ARAF's Climate Resilience Measurement tracks** the absorptive and adaptive capabilities of smallholder farmers to climate stresses in the medium and long term.

- Post-investment, ARAF uses a **Climate Resilient Toolkit/survey**, the development of which was funded by GCF and created by 60 Decibels specifically for ARAF, to understand farmers' adaptive and absorptive capacity towards climate change. Farmers who participate in the survey provide information on of the types of farming practices implemented, their access to financial products that mitigate production risks (i.e., crop insurance and credit), and access to climate smart innovations like alternative water sources and drought resistant seeds. The survey provides a resilience profile of farmers associated with a specific ARAF portfolio company, including farmer resilience, emerging vulnerability, and risk. The first survey is often conducted within 100 days of ARAF's investment and subsequent surveys are expected to be conducted on a comparable set of farmers at regular intervals for as long as the company is a part of ARAF's portfolio. This data collection helps ARAF understand changes in climate resilience over time.

Framework Development: For ARAF I, we developed a comprehensive climate resilience framework in collaboration with 60 Decibels, leveraging expert interviews and research on best practices. This framework evaluates three core aspects of resilience: the ability to absorb shocks, the ability to adapt, and access to enablers.

Below are the metrics considered and what the farmers are asked about.

- **Ability to Absorb Shocks:**
This dimension focuses on a farmer's capacity to withstand and recover from climate-related shocks, evaluated using criteria such as the percentage living below the relative poverty line, reliant on farm income, with access to financial resources for emergencies and crop insurance, likelihood of receiving warnings about shocks, expected ability to recover, and expected coping mechanisms.
- **Ability to Adapt:**
This dimension assesses farmers' knowledge and application of sustainable farming practices. The Farmers are asked about their application of intercropping, crop rotation, water harvesting methods, organic materials, land conversion to farmland, reduced or no tilling, soil top cover methods, and resilient livelihood mixes.
- **Access to Enablers:**
This dimension considers access to systems and resources that enhance farmers' resilience. The farmers are asked about their access to credit, wastage and storage facilities, market access, extension services, non-rain-dependent irrigation, and improved seeds.

Surveyed farmers are categorized on a 4-point resilience spectrum—risky, vulnerable, emerging, and resilient—based on feedback: resilient practices and apply nearly all climate-smart practices and have advanced tools to manage shocks; emerging farmers have greater capacities and some application of climate-smart practices; vulnerable farmers face significant challenges, are aware but do not apply climate-resilient practices, and have limited mitigation abilities; and risky farmers are unaware, have no access to climate resilience practices, and are unlikely to withstand weather shocks.

Climate Resilience Impact: The interventions by ARAF I portfolio companies have notably strengthened farmers' climate resilience. Our impact surveys show that 45% of the farmers assessed were resilient, up from a baseline of 38%. This increase indicates a higher ability to cope with climate hazards due to access to quality inputs, financial products (credit and insurance), agronomical support, infrastructure (water and mechanization), and premium markets. These elements, provided as a bundled product for farmers, collectively enhance farmer productivity, income, savings, reinvestment into land, and income diversification.

Based on the follow-on surveys carried out in 2022, the percentage of farmers reporting an improved way of farming rose to 87%, a significant increase from 77% in 2021 (compared to 81% in 2020). Similarly, the percentage of farmers reporting increased income saw a rise to 80%, up from 79% in 2021 (compared to 83% in 2020). However, the percentage of farmers reporting first-time access decreased to 67%, down from 77% in 2021, largely due to an increase in providers in the market. The percentage of farmers reporting an improved quality of life declined to 85%, down from 88% in 2021, driven by the continued drought in Kenya and higher inflation, which impacted the quality of life of farmers.

Despite these challenges, the climate resilience of farmers has improved over the current investment period. The percentage of farmers classified as resilient increased to 45%, up from 38% in 2020 and 43% in 2021. Conversely, the percentage of farmers classified as risky declined to 16% from 19% in 2021 and 21% in 2020.

ARAF I has created a robust foundation for climate resilience among smallholder farmers in Africa. This is reflected in the improved metrics of farmers' abilities to absorb shocks, adapt to changing conditions, and access critical enablers. We believe this comprehensive approach demonstrates our commitment to building sustainable and resilient agricultural practices.

- **Farmer Well-Being/Outcomes:** ARAF, again, has partnered with 60 Decibels to measure farmer well-being. Using its Lean DataSM methodology, 60 Decibels has helped ARAF and its investees understand the fund's impact and collect actionable insights. In addition to understanding changes to farmers' resilience, data collected by 60 Decibels supports investees in understanding the changes the enterprise is enabling in farmers' crops/livestock production and the significance of these changes to their livelihoods. As indicated in the climate measurement survey, the baseline survey for farmer well-being is usually conducted within 100 days of disbursing funds to the company. These results are compared to the 60 Decibels Agriculture Benchmark that has farmer data from ~70 companies in ~20 countries. ARAF intends to use the results to identify technical assistance funding opportunities for investees. The survey is repeated, when appropriate, usually every 12-24 months to understand the track record of performance and see impact deepening over time.
- **Gender/ESG Compliance:** Additionally, the fund has an ESG and Climate officer that works with ARAF companies to strengthen ESG compliance. Managing environmental, social, and corporate governance is critical to a company's business success. It is also critical for their customers, surrounding communities, broader stakeholders, and the environment. ARAF, through pre-investment assessment and post-investment monitoring and support, aims to evaluate the compliance of the portfolio companies with ESG requirements as stipulated by the IFC performance standards and other internationally accepted standards such as ILO and OSHA standards. Some of the key aspects the fund will look to evaluate include the implementation of ESG action plans, the number of accidents and incidences reported by the company, number of legal and regulatory complaints and number of people displaced and/or resettled. ARAF systematically integrates gender considerations into its investment approach, assessing portfolio companies for their potential to promote gender-focused development pre-investment, requiring a Gender Action Plan during the investment phase, and post-investment, providing gender-disaggregated impact data to pilot initiatives addressing gender disparities, with a focus on empowering women in climate resilience actions and mitigating the risk of household gender-based conflicts.

Additionally, each portfolio company is mandated to implement a Gender Action Plan addressing gender-related issues among both employees and external stakeholders. The ARAF side letter with companies includes Sexual Exploitation; Sexual Abuse; Sexual Harassment provisions¹⁷⁰, policies, and procedures, along with the grievance mechanism for ARAF. The Fund has an ESMS complaint policy enabling complaints and comments to be raised by investees, investors, co-investors, or any other affected stakeholders. This policy outlines procedures and timelines for addressing complaints. Furthermore, ARAF has published and intends to maintain its grievance redress mechanism for Fund II, aligning with GCF's independent redress mechanism, which is readily accessible to all stakeholders on its website.

Activity 3.1: Partner with co-investors and stakeholders to amplify impact.

63. Acumen has demonstrated a strong track record in collaborating with local governments, particularly through public-private partnership models, fostering close connections with key stakeholders including Nationally Designated Authorities and regulatory agencies aligned with ARAF II objectives. ARAF II will look to build on Acumen's strong relationships with NDAs in SSA, including Cote d'Ivoire, Ghana, Kenya, Nigeria, Senegal, Tanzania, Uganda, and Ethiopia.¹⁷¹ The team is excited to establish new relationships with NDAs in Egypt, Ethiopia, Tunisia, and Morocco. ARAF has offices in Kenya and Nigeria, and plans to build out more offices as required to support its investment activities.
64. The Fund Management team intends to continue to be based across its regions of focus. Both Acumen and the ARAF team seek to be responsible for direct engagement with potential pipeline companies, private sector players, industry associations and individual country NDAs regarding the programme and its strategic priorities. Direct stakeholder engagement is ongoing, including with the country NDAs. ARAF has established a strong stakeholder engagement plan and has sought to learn from and share project results with industry associations, local businesses, NGOs, and CSOs. The team will seek to continue building relationships with organizations with local expertise and knowledge to help guide and inform ARAF II project design and implementation.
65. To foster supportive market ecosystems for climate-smart agriculture, ARAF is in ongoing discussions with various Development Finance Institutions, foundations, family offices, and High Net Worth Individuals interested in investing. As with ARAF I, the strategy involves partnering with co-investors and other stakeholders to combine efforts and resources, thereby amplifying the impact of the initiatives. By fostering strategic alliances and working together, the desired transformations in the agriculture sector become more feasible and far-reaching.

■ Outputs:

The theory of change outlines a comprehensive plan aimed at fostering sustainable development in the agricultural sector.

Output 1: ARAF II established with \$120MM and \$12MM for the Technical Assistance Facility is raised.

66. As with ARAF I, GCF's support is expected to catalyze/crowd in additional capital for ARAF II. ARAF II expects to raise equity from DFIs, foundations, High Net Worth Individuals, and family offices for investment into agribusinesses that help smallholder farmers become more climate resilient. Similarly, ARAF II's technical assistance facility expects to receive funding from the same set of stakeholders to provide farmer training, gender-equity programming, business development, and ESG/audit support to its portfolio companies.

¹⁷⁰ <https://www.greenclimate.fund/document/sexual-exploitation-abuse-and-harassment-seah-risk-assessment-guideline>

¹⁷¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

Output 2: Companies expand and improve their offering better addressing the needs of SHFs (increased access to climate information, affordable financing, climate smart inputs, training, and formal markets)

67. ARAF II's investments hope to enable portfolio companies to grow and strengthen their business models, including the products, solutions, and services offered, to better meet the needs of smallholder farmers. Through formal and informal feedback loops, companies should be better able to understand new and evolving customer needs and adapt accordingly. Feedback loops from ARAF's farmer surveys provide baseline and periodic information on a). Climate conditions and whether farmers are accessing climate information, b). whether farmers know and use certain climate smart agricultural practices, and c). whether farmers have access to certain goods, services, and trainings. Farmers also report on credit availability, as well as storage and market access. Together with employee feedback, this data allows companies to pilot new products and services that improve farmer loyalty as well as farmer outcomes. The results of the impact evaluation surveys have also informed ARAF I's TA (Technical Assistance) projects, including undertaking out-grower irrigation pilots; developing account management tools and a remote sensing platform; and performing leadership and farmer training. These projects are specifically designed to increase the portfolio companies' capacity to serve customers and engage farmers better. The impact of these TA projects is continually reported by the portfolio companies and therefore contributes to the knowledge and learnings the fund will aim to develop.

Output 3: Companies grow and increase their sustainability (KPI, revenue increase/EBITDA/ units sold, capital leveraged)

68. As companies grow, they are able to sell more products and generate more revenue. Early-stage business gradually move from start-ups with a proof of concept and market traction, to much more sophisticated businesses that manage end-to-end customer experiences, inventory, staff, fundraising, and a myriad of different stakeholders (i.e. government, board members, farmers, banks, local and international suppliers, etc.) In addition to revenue generation, companies closely monitor profitability metrics and KPIs (i.e. EBITDA margin, cost of goods sold, and net income). Successfully managing this level of complexity ensures that companies are moving towards commercial viability, positioned to serve farmers in a sustainable and long-lasting manner.

Output 4: Companies enhance female participation and inclusion in the agricultural value chain

69. ARAF conducts impact surveys to assess the wellbeing of farmers and their resilience to climate change. Through disaggregated data, ARAF examines statistically significant differences between male and female farmers. Upon identifying differences, ARAF advises its portfolio companies to collaborate with consultants and initiate TA projects aimed at addressing gender-related disparities. When developing Gender Action Plans ARAF works with companies to create safe and equitable workplaces that can attract and retain talented female employees and leaders. Additionally, ARAF provides post-investment support with a gender lens, deploying the TA facility to ensure the inclusion of women in farmer training and capacity development. Furthermore, ARAF monitors the gender composition of employees within its portfolio companies, including managerial and non-managerial roles on a quarterly basis. In ARAF I, portfolio companies have set board level gender and inclusion goals that align with current gaps and commercial priorities of the business. ARAF II intends to continue and enhance this work throughout the lifespan of the subsequent fund.

Output 5: Capital leveraged via co-investments and partnerships

70. ARAF always seeks to invest alongside other investors. At the time of ARAF's initial investment in a company, the deal team builds relationships with current investors to ensure commercial and values alignment. Post-investment, ARAF works to actively support new investments and partnership development for its portfolio companies. ARAF introduces and facilitates meetings with new equity and debt providers, new suppliers, and potential partners to accelerate the business' growth. For ARAF I, 5.7X co-investment has been generated since ARAF's initial investment, excluding debt. ARAF II expects to generate a similar co-financing factor.

▪ **Outcomes & Co-benefits**

71. ARAF II strategically works with companies that empower smallholder farmers by providing bundled solutions that address multiple challenges along the agricultural value chain. These solutions encompass access to inputs, financial products, infrastructure, and essential training and information. Through market-driven forces, ARAF-backed companies aim to sustainably enhance the quality and quantity of smallholder farmers' production, bypassing middlemen to ensure a larger percentage of product value directly benefits the farmers, fostering climate resilience among smallholder farmers. The anticipated positive impacts include improved livelihoods, reduced poverty, sustainable land use, heightened food security, and gender-balanced growth. ARAF's diverse portfolio of smallholder agribusinesses, offering services such as sustainable farming knowledge, innovative finance solutions, improved inputs, and inclusive markets, is strategically positioned at the intersection of agriculture and climate resilience, ensuring a wide array of measurable outputs and outcomes for true climate-resilient growth.
72. With partnership from GCF, ARAF I set out to demonstrate that agricultural value chains can be made climate resilient by capitalizing businesses that build climate resilience for smallholder farmers, while also supporting the overall growth of the agriculture sector. Over the last four years, through its investments, ARAF I has achieved its investing and impact goals; driving growth in agribusinesses that are instilling adaptation practices in smallholder farmers, improving smallholder farmers' access to essential inputs, credit, infrastructure, information on climate-smart agriculture, and ultimately their productivity and income. As a result, these businesses have been able to attract additional private capital and have inspired similar business models across the continent.
73. ARAF II aims to build upon the successes of ARAF I by identifying, investing in, and scaling opportunities that enhance climate resilience for smallholder farmers across Africa. It seeks to expand the geographic scope of impact while testing and validating the effectiveness of the strategy employed in ARAF I at scale and in new climate-vulnerable regions. This framework is crafted to broaden the base of climate investors in the continent and augment private sector climate financing beyond conventional multilateral and bilateral development donors. By investing during pivotal moments of company growth and expansion, ARAF II plans to strive to attract equity co-investors in financing rounds while also providing essential equity support for additional debt leveraging. The Fund anticipates establishing a blueprint for a climate-resilient future aligned with GCF's objectives, with potential replication in various geographical contexts.

Outcome 1: Improved farmer access to markets and productive resources

74. ARAF II aims to invest in agribusinesses that foster inclusive markets, ensuring reliable and fair access and pricing for smallholder farmers. Through equitable contracts and coupled with enhanced inputs, finance, and training, these companies enable smallholders to invest confidently in strengthening and diversifying their sustainable farming value chains. The resilience benefits offered by these enterprises include increased price transparency, access to market demand information for better crop pricing, and improved market access efficiencies by eliminating intermediaries. This streamlined approach allows farmers to capture a larger portion of their crop sales price, enhancing income, margins, and providing more capital for future emergencies. A study in Uganda exemplified this potential impact, showing that farmers who gained access to a premium market experienced significant improvements in their yields, crop quality, and profits all increased, resulting in a 36% higher income per season compared to farmers without such access¹⁷². ARAF believes that a certain level of climate resilience can be achieved by businesses that supply climate resilient inputs directly to farmers, including improved seeds, weather information services, efficient irrigation, index insurance, etc. Accelerating and achieving significant and meaningful resilience for smallholder farmers requires investments in, and the scaling and replication of, 'ecosystem' businesses that address the systemic barriers preventing smallholders.

¹⁷² Poverty Action Lab (2021) [Market Access and Quality Upgrading: Evidence from Four Field Experiments](#)

Co-Benefit 1: Female farmers to have improved access to training, and company offerings and Improved inclusivity in the agricultural value chain

75. Research shows the productivity of female farmers is artificially constrained; if women had the same access as men to land and other resources, farm yields would increase up to 30% and reduce hunger up to 17%.¹⁷³ ARAF II seeks to continue to work with investees to provide targeted Technical Assistance trainings aimed at improving the climate resilience impacts of investee business models; encouraging greater female participation in and adoption of investee products, services, practices, and markets; measuring impact and customer feedback through Lean Data; helping investees to improve their models to ensure they can meet their impact and profit targets and are able to scale sustainably. Within ARAF II, TA grants are expected to particularly emphasize gender inclusivity, aiming to address the specific needs and barriers faced by female farmers and employees, as well as climate resilience and adaptation, driving experimentation in this crucial domain. Given that women constitute nearly half of total smallholder farmers¹⁷⁴, we anticipate the TAF will support pilot initiatives to promote workplace equity within portfolio companies, such as increasing the number of female sales agents. Additionally, efforts can be made to develop products and services that enhance access and utilization by women and girls, including targeting locations where women gather and creating lighter products for easier carrying. Research shows that incentivizing farmers in general and female farmers in particular can serve as a potential means to adopt agricultural technologies that have potential to boost rural economy and enhance the food security¹⁷⁵.

Outcome 2: Increased farmer resilience and adaptive capacity

76. ARAF I's farmer-level impacts demonstrate Acumen's position that bundled solutions are effective in enhancing farmers' climate resilience. ARAF I's investing outcomes provide a foundation for ARAF II to build upon by continuing to invest in agribusinesses that support vulnerable smallholder farmers in developing markets who are struggling with the adverse effects of climate change, and at risk of even greater impact in the future.

77. The ARAF team recognizes that enhancing farmers' adoption of climate adaptive inputs and tools is insufficient; the broader goal is to ensure sustained improvement in smallholder farming practices that are environmentally and economically sustainable. To achieve this, ARAF seeks to continue using its proprietary pre-investment screening tool and focus on investing in platform business models that integrate agronomy training, creating a mutually beneficial scenario for farmers, companies, and the environment. The incorporation of sustainable practices into business models has proven to enhance yields, ensure consistent production supply and standards, improve soil quality, enhance water efficiency, and promote ecosystem diversity. ARAF aims to unlock the untapped potential of smallholder farms by collaborating with companies providing essential inputs and advice, enabling farmers to manage the impacts of changing weather directly¹⁷⁶. The alignment of incentives for agribusinesses underscores their commitment to the sustainability and productivity of their suppliers.

Outcome 3: Enhanced farmer income, livelihoods, and productivity

78. ARAF expects that through access to an integrated package of improved inputs, finance, training, and markets, farmers will not only increase yields and decrease yield volatility but also experience elevated incomes and reduced income volatility throughout the seasons. This outcome is anticipated to enhance both the security and

¹⁷³ FAO (2011) [Closing the gender gap in agriculture](#)

¹⁷⁴ "Women Smallholder Farmers: What Is the Missing Link for the Food System in Africa?" *Wilson Center*, <https://www.wilsoncenter.org/blog-post/women-smallholder-farmers>. Accessed 17 May 2024.

¹⁷⁵ Dar, Manzoor H., et al. "Gender Focused Training and Knowledge Enhances the Adoption of Climate Resilient Seeds." *Technology in Society*, vol. 63, no. ISSN 0160-791X, Nov. 2020, p. 101388, <https://doi.org/10.1016/j.techsoc.2020.101388>.

¹⁷⁶ Frost, Chania, et al. "Chania Frost." *McKinsey & Company*, 28 Feb. 2023, <https://www.mckinsey.com/industries/agriculture/our-insights/what-climate-smart-agriculture-means-for-smallholder-farmers>. Accessed 11 Apr. 2024.

smoothness of smallholder farmer access to finance year-round, diminishing uncertainty and empowering farming households to plan their spending and consumption more effectively. Additionally, ARAF seeks to explore investments in companies offering financial products and services tailored to assist farmers in safeguarding or smoothing their income, including insurance, savings, layaway payment models, and innovative credit models. Over time, the predictability of income is envisaged to aid farmers in planning, fostering a foundation of savings and assets that can mitigate the impact of abrupt shocks such as climate-related hazards¹⁷⁷.

79. Moreover, ARAF's engagement with agricultural finance companies further demonstrates the significance of providing both liquidity and capital, highlighting the role of incremental asset accumulation as a pathway out of poverty and a means of insurance during challenging times. By investing in companies that diversify risk, open new markets, and offer technical assistance, ARAF aims to reduce year-on-year variability in net-farm incomes induced by climate change and alleviate the financial stress faced by farmers, ultimately promoting a more resilient and sustainable agricultural ecosystem.
80. Reducing poverty in Africa is the world's supreme development challenge, and growing the agricultural sector is key to achieving a transformational impact. A country's economic, environmental, and social well-being are intricately linked to a healthy, well performing agricultural sector. Increasing investments in the farm economy can deliver high-impact development returns such as increasing rural incomes, boosting food security, making cheap and more nutritious food available to Africa's people, and protecting the environment through innovations such as climate smart agriculture¹⁷⁸. ARAF intends to bolster climate resilience among African smallholders by investing in businesses that provide climate resilience solutions to smallholders and supporting other ecosystem businesses that enhance livelihoods. These 'vertical' investments, including farmer-allied intermediaries, market-integrated production companies, and value chain optimizers, link farmers to higher-value markets while boosting productivity. Complementary 'horizontal' investments in optimizers and enablers cultivate an ecosystem capable of sustaining and expanding more inclusive, equitable value chains.

Outcome 4: Agribusinesses demonstrate scale and viability of innovative models built towards climate resilience

81. ARAF II expects to replicate, on a larger scale and across a wider investment region, the investment strategy and success of ARAF I. ARAF I's portfolio companies are growing and increasing revenue following ARAF's initial investment. Notably, three ARAF I portfolio companies expanded into new countries and regions, validating the scalability and replicability of their business models across diverse geographies. The real success of ARAF I's investment activities underscores the proof that investing in commercially viable agribusinesses has the potential to catalyze additional private capital into the climate-resilient agriculture investment space, marking a pivotal step in fostering sustainability and growth for these enterprises. According to a McKinsey study, there is a need for investments to help demonstrate the commercial viability of the businesses across an expanded geographic area. Given the continent's diversity, a successful strategy for any company should begin by prioritizing select countries and value chains where most resources, including personnel, investment capital, and partnerships, are concentrated. ¹⁷⁹.

Co-benefit 2: Improved inclusivity in the agricultural value chain

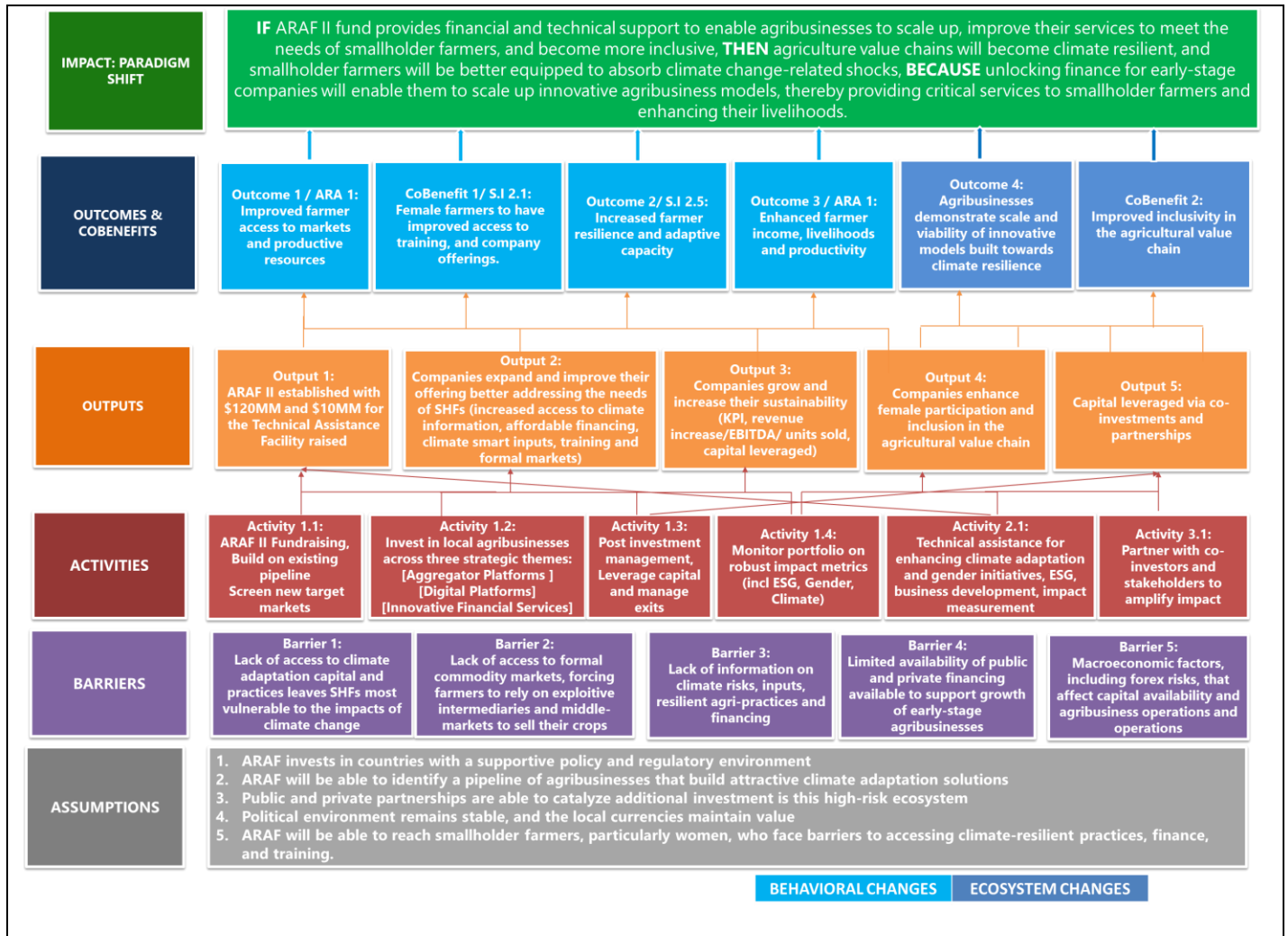
¹⁷⁷ Dhakal, Chandra, et al. "Climate Change Adaptation and Its Impacts on Farm Income and Downside Risk Exposure." *Resources, Environment and Sustainability*, vol. 10, no. 2666–9161, Dec. 2022, p. 100082, <https://doi.org/10.1016/j.resenv.2022.100082>.

¹⁷⁸ World Bank. "Unlocking Africa's Agricultural Potential." *World Bank*, 2013, <https://openknowledge.worldbank.org/server/api/core/bitstreams/3cbc1ec4-8400-5971-8b0b-6ada9679cec5/content>.

¹⁷⁹ ---. "Lutz Goedde." *McKinsey & Company*, 15 Feb. 2019, <https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-african-agricultural-market>. Accessed 11 Apr. 2024.

82. FAO research indicates that gender equality and women's empowerment are central to the transition towards sustainable, productive, and resilient agrifood systems and that the transformation of agrifood systems can contribute to gender equality and women's empowerment ¹⁸⁰. Co-benefit 2 underscores the gender inclusiveness outcomes resulting from ARAF II's support for portfolio companies, aiming to enhance inclusivity within the ecosystem while prioritizing outreach to vulnerable communities. There is a critical need to improve inclusivity and implement gender-focused activities within the agriculture sector given women's significant contributions.
83. ARAF II aims to capture the benefits of gender-smart investments as demonstrated by the robust gender-disaggregated indicators within its logical framework and the ARAF II Gender Action Plan (Annex 8). ARAF tracks gender diversity within its portfolio companies on a quarterly basis, covering both managerial and non-managerial positions, to monitor and promote gender representation and inclusivity within its investments. ARAF II expects to deploy its TA facility to support gender initiatives among portfolio companies. For instance, ARAF I supported Uzima Chicken in executing a middle and senior-level managers training program, which included a Women's Circle Program for 40 female staff. The program aimed at promoting mentorship and robust discussions around various subjects, including confidence building and managing challenging gender-sensitive situations in the field. Additionally, the fund deployed its TA facility to fund farmer training programs, resulting in a direct impact on female farmers. ARAF has built internal expertise and, opportunistically, uses third party vendors to enhance gender awareness, expertise, and opportunities for portfolio companies.
84. By addressing the barriers and leveraging the identified assumptions, the theory of change aims to promote climate-resilient practices, enhance gender empowerment, and foster sustainable growth and development in the agricultural sector. The theory's rationale lies in demonstrating that targeted investments and activities can create a positive cycle of climate-resilient practices, improved livelihoods for smallholder farmers, and increased private capital investment in climate-resilient agriculture in Africa, thereby contributing to the Fund's goals and objectives of promoting sustainable agriculture.
85. Please see the theory of change diagram for a summary below:

¹⁸⁰ FAO. 2023. *The status of women in agrifood systems – Overview*. Rome. <https://doi.org/10.4060/cc5060en>



B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Fill in the GCF results area table below to map each project/programme outcome identified in section B.2(a) to the contributing GCF results area(s) by referring to the description of eight results areas provided in the guidance note.

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1: Improved farmer access to markets and productive resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome 2: Increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

farmer resilience and adaptive capacity								
Outcome 3: Enhanced farmer income, livelihoods, and productivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome 4: Agribusinesses demonstrate scale and viability of innovative models built towards climate resilience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any co-benefits have been identified in section B.2(a), fill in the Co-benefit table below to map each co-benefit to the corresponding category as defined in the FP guidance note.

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation
Co-benefit 1: Female farmers to have improved access to training, and company offerings and Improved inclusivity in the agricultural value chain	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Co-benefit 2: Improved inclusivity in the	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

agricultural value chain						
Co-benefit ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The current ARAF II pipeline suggests minimal mitigation benefits, which has guided our selection above.

B.3. Project/programme description (max. 2500 words, approximately 5 pages)

86. Acumen Resilient Agriculture Fund II is a climate adaptation fund sponsored by Acumen that is focused on improving the climate resilience of smallholder farmers in Africa, and in turn strengthening the climate resilience of the agricultural value chain and promoting food security by improving yields and efficiency across the value chain. The fund seeks to impact 4MM smallholder farmers by investing in companies that support improvement of their yields and income and provide diversification and protection for family income. The fund's goal is to improve the livelihood of these smallholder families and reach 20MM beneficiaries.
87. ARAF was designed utilizing insights from Acumen's decades-long experience in investing in smallholder agriculture, specifically its understanding of the nuances around inducing behavior change in smallholder farmers, encouraging sustainable adoption of improved inputs and farming techniques, and the importance of commercial relationships for farmers. The key learning is that farmers prefer one stop solutions that address multiple pain-points. Accordingly, platform businesses offering multiple services are better able to gain traction and scale. Furthermore, their diversified service offerings also help these businesses mitigate financial viability risk. This demonstrable thesis forms the foundation of ARAF's guiding principles, investment strategy and the crux of how we expect to achieve our investment mandate.
88. As part of ARAF's platform-based investment thesis, ARAF has identified the following key farmer needs that support sustainable income increases and reduced income uncertainty:
- Access to quality inputs – improve productivity;
 - Access to affordable financial products (credit and insurance) – enable farmers to make the upfront CAPEX (e.g. land preparation) and quality inputs for greater productivity and protect the investment into their farming in the event of covered loss;
 - Access to infrastructure (irrigation and mechanization) – drive increased productivity and efficiency;
 - Access to extension services and training – improve yield, reduce waste, improve climate resilience;
 - Access to premium off-take markets – improve profitability.
89. ARAF II has been conceptualized and designed to extend the gains made through ARAF I by identifying, investing in, and scaling investment opportunities that bring climate resilience to smallholder farmers, while expanding the geographic scope of the impact to value chains across Africa. ARAF I sought to prove that climate adaptation and resilience benefits could be achieved by supporting smallholder farmers with the tools, information, resources and linkages required to increase productivity and income, protect income and diversify sources of income, leading to an improvement in livelihoods. The investment strategy for ARAF I was focused on businesses that provide bundled products and/or solutions to farmers as the most effective and efficient approach to engaging farmers and addressing their needs. The ARAF I portfolio adequately reflects this strategic underpinning and represents some of the most compelling opportunities and innovations within various segments, including bundled production support, market integrated production support, vertically integrated brands, integrated value chain optimization, solar-powered solutions and parametric insurance. ARAF II's intention to expand its geographic focus represents a desire to capture additional economically-strong, agriculture-based, climate-vulnerable markets on the continent.
90. ARAF II, similar to ARAF I, intends to invest across three strategic themes that represent the market innovation and opportunities aimed at providing bundled solutions to smallholder farmers, namely:

- a. **Aggregator Platforms:** Agri-processors bypass intermediaries to procure directly from farmers, addressing two or more key farmer access needs, such as improved inputs or affordable credit bundled with services such as extension services and trainings, and access to markets. ARAF II expects half of its portfolio to be aggregators.
 - b. **Digital Platforms:** Information, communication, and technology (ICT) agri-businesses, leverage digital platforms to link farmers directly with input suppliers and off-takers to bypass exploitative intermediaries. They also push information like farming knowledge, weather, and market prices to farmers, and connect them with financial services and other services to increase their productivity.
 - c. **Innovative Financial Solution:** These companies provide access to formal financial services like affordable credit, saving products, insurance solutions, etc., enabling farmers to purchase improved inputs or other productive assets to diversify their incomes, increasing their livelihoods and their resilience against negative impacts of climate change.
91. ARAF has a strong well-rounded team with impact investing, business strategy and operations, ESG and climate expertise. The team's breadth reinforces the Fund's ability to source deals; deploy capital; effectively manage portfolio companies with an emphasis on value creation and underlying impact; and efficiently monitor and report financial and impact performance to investors. ARAF's team has extensive experience deploying capital in the region, which provides the requisite local knowledge and network for fund management and has greatly contributed to ARAF I's ability to complete 13 investments over the last 4 years. The team is Africa-based and trained at leading universities and corporations, creating the opportunity to build deep market intelligence and develop a healthy pipeline of opportunities. The on-the-ground presence also helps ARAF to continue strengthening its investment thesis over time, as the team is well-positioned to identify developments in the sector. The entire team is involved in strengthening the ARAF brand by building and maintaining relationships with LPs, co-investment partners, government entities, and contributing to the wider ecosystem development by attending conferences for knowledge sharing and pipeline building.

COMPONENT 1: INVESTMENT FUND

Tentative Returnable Fund Size	US\$120MM
Term	10 years (subject to two 1-year extensions)
Target Capital Structure	US\$30MM in Junior Equity requested from GCF; US\$90MM in Senior Equity
Investment Approach	Stage: Venture, early growth and growth stage investments Investment Instrument: Equity, Quasi-Equity
Investment Size	US\$K - 6M (with a US\$12M cap on concentration in a single company)
TAF	US\$12M in grant funding (US\$4M requested from GCF)
Target Lives Impacted	20MM

Output 1: ARAF II established with \$120MM and \$12MM for the Technical Assistance Facility is raised

ACTIVITY 1.1 – ARAF II FUNDRAISING, BUILD ON EXISTING PIPELINE, SCREEN NEW TARGET MARKETS

92. ARAF II is a US\$120MM impact investment fund that intends to invest in fast growing agribusinesses with climate adaptation offerings (products and/or services) that support smallholder farmers to become more resilient to climate change. The fund is intended to be complimented by a US\$12MM technical assistant facility, which shall be used to fund gender-focused initiatives, farmer training, business development and impact assessment and monitoring for portfolio companies. The fund will be investing across the following three themes: aggregator platforms, digital platforms and innovative financial solutions, which are aligned with the following GCF result areas as set out in the theory of change.
93. ARAF II seeks to fundraise based on commitments from private institutional investors, development finance institutions, and it is hoped that the Green Climate Fund will anchor the fund, with US\$30MM in first loss equity capital, as well as provide US\$6MM in grants in support of the TAF. The first loss nature of the GCF's investment can act as downside protection for more return-focused private capital impact investors and catalyze participation in ARAF II.
94. ARAF II intends to make equity and quasi-equity investments of between US\$500K to US\$6MM into 18-20 companies across East Africa (Kenya, Uganda and Tanzania); West Africa (Ghana, Nigeria and Cote d'Ivoire); and North Africa (Egypt and Morocco).¹⁸¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries. With a diversified portfolio, constructed such that no country has investments amounting to more than 35% of the fund size; and no one company accounts for more than the lesser of 10% of the fund size and US\$12MM.
95. As a result of established relationships and network from Fund I, as well as an on the ground presence, ARAF is continuously developing a pipeline of investible opportunities. Accordingly, ARAF II already has a pipeline of 30 priority investments across the 3 investment themes with preliminary discussions and evaluations ongoing.

Sub-activity 1.1.1. – Fund formation activities

96. The General Partner intends to engage lawyers, who will establish all the fund entities and will jointly negotiate the terms of the fund agreements.

Sub-activity 1.1.2. – Fundraising activities

97. The General Partner aims to draft fundraising and marketing materials with detailed information on the Fund's strategy, operations, target investment returns and impact metrics, etc.; identify interested Limited Partners, build relationship with Limited Partners through roadshows and one-on-one meetings, participate in the due diligence processes of Limited Partners, and negotiate fund agreements.

Sub-activity 1.1.3. – Research and sourcing

98. The Fund Manager intends to develop a robust pipeline evidencing the attractive investment opportunities within the investment region.

¹⁸¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

ACTIVITY 1.2: INVEST IN LOCAL AGRIBUSINESSES ACROSS THREE STRATEGIC THEMES: AGGREGATOR PLATFORMS, DIGITAL PLATFORMS, AND INNOVATIVE FINANCIAL SOLUTIONS

99. ARAF II intends to focus on investing in, and scaling, early to early-growth stage agribusinesses with initial ticket sizes ranging from US\$500K to US\$6MM with the ability to follow-on capped at a total of US\$12MM. The moderately larger initial ticket size is driven by experience from ARAF I, where the median initial ticket size was US\$2MM. There has been a gradual evolution of the nature of businesses at the Pre-Series A round, with several of ARAF I's more recent investments at that stage delivering revenues at the US\$2MM+ mark and seeking to raise larger sized Pre-Series A rounds. In ARAF I, the team identified companies that were aligned with the ARAF mission and would have a direct impact on smallholder farmers but needed larger investments. Increasing the ticket size can enable ARAF II to invest in such companies, particularly as the fund expands its geography into North Africa, where the deals are anticipated to be larger given the size, nature, and maturity of both the upstream and downstream sectors in these markets.
100. **Aggregator Platforms:** These companies typically have commercial imperatives to provide end-to-end support for farmers across the production cycle, from inputs to offtake, for example, the company may be utilizing produce from smallholder farmers for input in its processing activities or they may be exporting to international buyers with high standards and requirements. As a result of their hands-on approach of working with farmers, these companies have demonstrable impact on farmers' productivity and wellbeing.

Pipeline:

- Food brands / agro-processors / primary-processors that incorporate sourcing directly from smallholder farmers to their business models to effectively manage either the quantity or the quality of raw materials utilized for manufacturing or inventory sold into either the domestic or international markets.
- Solar-powered cold-storage and/or cold-chain companies that introduce innovative approaches including pay-as-you-go or shared service models; precision agriculture, incorporating for example soil diagnostics to provide exactly what the soil requires in the short and long term towards sustainably increasing yields/acre.

Example of the resilience benefits from companies in this category include:

Impact

- Increased productivity by facilitating transportation and storage infrastructure, which provide farmers with access to quality inputs and direct market linkages;
- Promotion of efficient utilization of natural resources, including land and water resources, and encourage agroforestry to address soil erosion;
- Access to mechanization and irrigation solutions, which boost productivity by improving soil quality and making farmers less dependent on the timing and quantity of rain; and
- Investments in processing infrastructure for value addition, resulting in guaranteed offtake, reduction of post-harvest losses, and higher income for farmers.
- Storage infrastructure and cold chains preserve and/or extend the shelf life of produce, limiting post-harvest waste and safeguarding / optimizing farmers' incomes. Access to storage also means that farmers do not have to sell all of their produce during harvest season and can manage when and how much produce they sell, enabling them sell some produce during the low-season when prices are higher.
- For a large proportion of smallholder farmers in Africa, post-harvest loss has been attributed to approximately 30-40% of produce loss.¹⁸² Access to cold storage facilities among smallholder farmers is critical to reducing post-harvest loss and achieving multiple socio-economic goals such as improving food security, enhancing rural livelihoods and increasing farmer incomes.¹⁸³ SokoFresh, a Kenyan based agribusiness, offers solar

¹⁸² BASE, Servitisation of the cooling industry: Cooling as a Service (CaaS), 2022, <https://www.caas-initiative.org/wp-content/uploads/2022/05/Cooling-as-a-Service-White-Paper-1.pdf>

¹⁸³ BASE, Servitisation of the cooling industry: Cooling as a Service (CaaS), 2022, <https://www.caas-initiative.org/wp-content/uploads/2022/05/Cooling-as-a-Service-White-Paper-1.pdf>

powered cold storage services to smallholder farmers in Kenya.¹⁸⁴ A study of smallholder farmers using SokoFresh cold storage services indicated that approximately 77% of the smallholder farmers experienced increases in income due to access to SokoFresh services.¹⁸⁵

- Smallholder farmers often find themselves unable to access lucrative market opportunities serving domestic or export value chains.¹⁸⁶ The difficulty in accessing market opportunities is due to factors such as high transportation costs, lack of economies of scale and insufficient knowledge about farming practices required to meet quality requirements.¹⁸⁷ Aggregator business models can enable smallholder farmers to navigate these barriers.¹⁸⁸ Kentaste is one of the top manufacturers of coconut products in the East Africa region.¹⁸⁹ The company sells various coconut products such as coconut oil, cream milk and flour in more than 1,000 retailers across the East-African region.¹⁹⁰ Kentaste sources coconuts from more than 2,000 smallholder farmers through an aggregator business model.¹⁹¹ Kentaste has a sourcing model that delivers a bundle of services to smallholder farmers that includes credit, training and access to seedlings.¹⁹² Kentaste usually buys coconuts from farmers each season and offers a stable price all year round, which is based on the cost of production, prevailing market prices and a premium for organic certified coconuts.¹⁹³ Due to Kentaste's support to farmers and its aggregator sourcing strategy, some smallholder farmers supplying coconuts to Kentaste have seen their yields increase from 400 to 1,200 coconuts and incomes grow by as much as 120 percent.¹⁹⁴

101. **Digital platforms:** These companies are working to digitize the value chain to provide farmers (including farmers at the last mile) with just-in-time access to inputs and vaccines; information on demand patterns, which then guides production decisions; access to mechanization; agronomical support on their phones or through an agent network and access to premium markets of various types of buyers including local processors and international traders.

Pipeline:

- Companies that are utilizing technology to serve and connect value chain participants more efficiently; Enabling data and intelligence companies, applying new technologies and data to provide precision and predictive analysis and business intelligence solutions.

The resilience benefits brought on by these companies include:

¹⁸⁴ 60 Decibels, Soko Fresh Report 2022, 2022, <https://60decibels.com/insights/sokofresh-results-2022/>

¹⁸⁵ 60 Decibels, Soko Fresh Report 2022, 2022, <https://60decibels.com/insights/sokofresh-results-2022/>

¹⁸⁶ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁸⁷ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁸⁸ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁸⁹ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁹⁰ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁹¹ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁹² Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁹³ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

¹⁹⁴ Commercial Agriculture for Smallholders and Agribusiness (CASA), Sourcing from Smallholders: Complex Challenge or Commercial Opportunity? Perspectives from Investors and Agribusinesses, 2021, https://www.casaprogramme.com/wp-content/uploads/Sourcing-from-Smallholders-Complex-Challenge-or-Commercial-Opportunity_vf.pdf

Impact

- Increased price transparency and access to demand information, which helps farmers price their crops better and ensures that they do not leave money on the table in transactions;
- Improved market access and efficiencies, which eliminates the long chain of intermediaries, allowing farmers to capture a greater portion of the sales price of their crops, thereby improving their income and margin, and providing them additional capital to reinvest in their productivity and/or to protect themselves and their families from future emergencies.
- AgroCenta, a Ghanaian AgTech company, has developed two digital platforms that enable smallholder farmers to access markets and financial products.¹⁹⁵ AgroCenta developed AgroTrade, a digital platform that connects smallholder farmers to an online market for buyers.¹⁹⁶ AgroTrade also provides truck delivery services and real-time market information via SMS.¹⁹⁷ AgroCenta also developed AgroPay, a digital platform which enables smallholder farmers to use mobile money to make and receive payments.¹⁹⁸ The payment history from AgroPay, has enabled smallholder farmers to build their credit score and access financial products.¹⁹⁹ AgroCenta has been able to increase the income of the smallholder farmers on its platform by 35 per cent on average, while reducing food waste by 25 per cent and increasing yields by 40 per cent.²⁰⁰
- MooMe, an AgTech company based in Tunisia, is positively transforming the Tunisian dairy market through its digital platform.²⁰¹ MooMe developed a digital platform that enables dairy farmers to monitor numerous aspects of their farm operations such as animal reproduction, milk production, feed consumptions etc.²⁰² The data collected by MooMe has been instrumental in enabling farmers to access improved advisory services and financial products.²⁰³ A survey of 278 farmers using the MooMe digital platform indicated that at least 72% of the farmers reported an increase in production.²⁰⁴ The survey also indicated that at least 65% of the farmers managed to achieve increases in their incomes.²⁰⁵

102. **Innovative financial solutions:** Companies providing access to financial products to farmers, including platform businesses working in partnership with banks and microfinance companies to create credit algorithms given their existing knowledge and working relationships with the farmers. In addition to companies leveraging technology to provide insurance protection, particularly weather-focused insurance products, to farmers. Resilience impacts expected from these companies include:

Pipeline:

- Solutions that provide farmers with access to financial products, including digital transactions, savings, and access to affordable credit that enables SHFs purchase required products and services. This service offering may be stand-alone services or part of wider services offered by companies. Some digital financial services

¹⁹⁵ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

¹⁹⁶ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

¹⁹⁷ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

¹⁹⁸ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

¹⁹⁹ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

²⁰⁰ GSMA, Empowering smallholder farmers through finance, information and market access, 2019, <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2019/11/AgroCenta-Empowering-smallholder-farmers-through-finance-information-and-market-access.pdf>

²⁰¹ 60 Decibels, Boosting Dairy Farmer Resilience Through Digitization in Tunisia, 2023, <https://60decibels.com/insights/dairy-farmer-resilience/>

²⁰² 60 Decibels, Boosting Dairy Farmer Resilience Through Digitization in Tunisia, 2023, <https://60decibels.com/insights/dairy-farmer-resilience/>

²⁰³ 60 Decibels, Boosting Dairy Farmer Resilience Through Digitization in Tunisia, 2023, <https://60decibels.com/insights/dairy-farmer-resilience/>

²⁰⁴ 60 Decibels, Boosting Dairy Farmer Resilience Through Digitization in Tunisia, 2023, <https://60decibels.com/insights/dairy-farmer-resilience/>

²⁰⁵ 60 Decibels, Boosting Dairy Farmer Resilience Through Digitization in Tunisia, 2023, <https://60decibels.com/insights/dairy-farmer-resilience/>

providers have succeeded in digitizing the full loan process, from data collection, alternative credit scoring, to loan disbursement, and are utilizing machine learning in credit scoring, all of which enable these companies to overcome the barriers traditional lenders face. Also interested in business models that deliver weather-based insurance products.

Impact:

- Increased ability and willingness of farmers to invest in their farmlands, particularly upfront investments in land preparation and purchasing quality seeds, thereby increasing farmer productivity and income;
- Financial inclusion, access to digital payments, transaction history and savings products;
- Protection of farmer investments, securing ability to participate in future farming cycles.
- Digital platforms powered by internet connectivity and other forms of telecommunication technologies are transforming the agriculture sector by making it more productive, efficient, sustainable and climate resilient.²⁰⁶ Digital agricultural platforms have provided smallholder farmers with financial products, access to markets, and access to agricultural, weather and climate information.²⁰⁷ For instance, DigiFarm, a digital platform, uses mobile phones to enable smallholder farmers to access credit, advisory services, market linkages, inputs and crop insurance.²⁰⁸ DigiFarm has been able to reach over 1.3 million farmers since its launch.²⁰⁹ A study of DigiFarm users indicated that approximately 90% of users agreed that DigiFarm had improved their productivity by enabling them to access better farming knowledge and information.²¹⁰ Additionally, approximately 75% of DigiFarm users acknowledged that they had become more climate resilient due to using DigiFarm services and products.²¹¹ Finally, farmers also acknowledged experiencing an improved standard of living, ability to provide for basic needs and increased knowledge in using modern farming techniques due to DigiFarm services and products.²¹²

Investment Process

103. There are six phases and five key decision gates of the Fund's investment process and identifies the primary participants involved in each stage and decision..

²⁰⁶ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²⁰⁷ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²⁰⁸ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²⁰⁹ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²¹⁰ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²¹¹ Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

²¹² Mercy Corps, DigiFarm Panel Study, 2021, <https://www.mercycorpsagrifin.org/wp-content/uploads/2021/05/DigiFarm-Impact-Study-Panel-Aggregated-Report-1.pdf>

Sub-activity 1.2.1 – Initial Diligence

104. The Fund Manager intends to obtain information from prospective companies towards evaluating the fit and potential of the opportunity. The Investment Team would typically screen the opportunity against the Fund’s investment criteria, seek to understand the company’s historical performance, business model and future expectations with an emphasis on understanding commercial attractiveness, climate resilience impacts and potential ESG risks. The Fund Manager expects to assess the climate resilience of potential investment opportunities, utilizing the Agriculture Resilience Investment Screen (“ARIS”) tool, which was developed by Acumen, in partnership with Winrock International. The tool provides a consistent, rapid and robust methodology for investment managers to assess the climate resilience potential of agri-business opportunities

The Fund Manager aims to utilize ARIS during the transaction screening phase to support the Investment Team’s decision to recommend the investment to the Investment Committee. The Fund Manager intends to provide the results of the ARIS tool to the Investment Committee to support its decision-making process.

Sub-activity 1.2.2 – Preliminary Investment Memo

105. The Fund Manager would prepare an Investment Committee Memo highlighting the findings from the initial due diligence review, detailing the historical business performance, current business model in the context of the wider industry and macro situation, opportunity set, financial projections, investment structure, agreed on valuation, management team, identified risks and mitigation.

Sub-activity 1.2.3 – Initial IC approval

106. The Fund Manager would present the opportunity to the Investment Committee at a meeting providing the IC with the opportunity to delve deeper into the opportunity and ask questions. The IC is expected to be composed of individuals with deep operating expertise, varied and complementary skillset, and well-versed in either the market (Africa), the sector (Agriculture) and/or the discipline (Fund Investing). The IC may either approve or reject the investment moving to the next phase; it may also request additional information to enable it to arrive at a decision. In the case of an approval at this stage, the IC will often recommend additional risk areas for further investigation during the due diligence period.

Sub-activity 1.2.4 – Full Commercial, Legal, Financial Tax, ESG Due Diligence

107. The IC approval is intended to provide the Manager with the ability to proceed to formal due diligence, during which external advisers would typically be engaged to perform due diligence exercises (except for ESG / Climate and Commercial due diligence, which are intended to be performed in-house). The due diligence exercise is expected to validate the manager's understanding of the business and uncover risk areas that need to be addressed either in the definitive transaction documents, or prior to signing an agreement, or prior to funding the investment or after the transaction close. The Fund Manager will seek to have the climate resilience assessment that was conducted during the initial DD phase validated by Winrock International (or similar third-party provider).

Sub-activity 1.2.5 – Agree terms and complete diligence

108. The Fund Manager aims to discuss the due diligence findings with the target company and to provide the target company with opportunities to explain and/or resolve the various risk situations identified by due diligence advisers. Following these discussions, the Fund Manager and its advisers will negotiate terms with the target company based on standard market practices and incorporating the results of the due diligence findings to adequately protect the Fund.

Sub-activity 1.2.6 – Investment documentation and closing

109. Concurrent with the due diligence, the Fund Manager and transaction legal adviser will typically negotiate the terms of the investment agreement(s) and any side letter(s) to adequately reflect previously agreed on investment instrument and structure, provide necessary guidelines and safeguards for conducting the relationship between the investors (including the Fund Manager) and the company, and incorporate the findings of the due diligence exercise. Following the completion of any Conditions Precedent, the Fund Manager would expect to call the capital from Limited Partners and subsequently fund the investment to arrive at transaction close.

ACTIVITY 1.3: POST INVESTMENT MANAGEMENT, LEVERAGE CAPITAL AND MANAGE EXITS.

ACTIVITY 1.3.1: POST INVESTMENT MANAGEMENT

110. ARAF's investment philosophy is rooted in partnering with growing businesses on their journey to scale. As a result, ARAF seeks to provide these businesses with continued support over the different phases of their growth and across the breath of their business operations. Due to the investment stage, ARAF is oftentimes the first institutional investor investing in its portfolio companies, accordingly, ARAF frequently supports its portfolio companies to enhance their governance structures, build the accountability of the management team, as well as provides strategic and operational guidance to fuel growth and expansion. This support strengthens the value proposition of portfolio companies, making them more attractive to private sector capital providers and creating opportunities for partnership and engagement with the public sector.

111. ARAF always aims to obtain the right to a board seat or board observer role, depending on the company's stage and the size of its equity in the company. This seat enables ARAF to be additive in providing strategic guidance to portfolio companies towards helping them scale their business and impact. ARAF's board representative may be a senior member of the ARAF investment team or an unaffiliated professional with specific expertise or relevant experience. ARAF typically selects its board nominee based on the company's needs and gaps on the current board in the context of the company's business direction and plans.

112. ARAF also assigns a Relationship Manager on each portfolio company, a member of the ARAF team, who actively engages with the senior management of the portfolio company, with the standard of maintaining touch points at least once a month, and sometimes more frequently, depending on the stage of the business. The goal is to stay up to date with developments within the company to understand their impact on financial performance, provide

support in the form of business recommendations and/or introductions, as well as, to ensure that the business strategy remains aligned to ARAF's climate adaptation objectives.

113. ARAF's post-investment support is tailored to the individual company's needs and requirements for achieving their growth plans. However, given the stage of a majority the businesses ARAF invests in, ARAF has identified the following as prevailing areas of focus for most portfolio companies at the onset of portfolio management.

- **Recruitment and retention within Portfolio Companies:** Early-stage companies often lack the resources and experience that facilitate the recruitment of seasoned senior management and C-suite employees. They may also not have the market recognition that would make them viable options for top talent. Both internal and external factors combine to sometimes make recruiting difficult for early-stage companies. Accordingly, the effort required to recruit and retain these positions is often underestimated, leading to delayed recruitment, potentially impacting overall performance despite company-level financial and operational projections typically accounting for senior level recruitment. ARAF therefore advocates for more reasonable recruitment timelines in plans; revising requirements from C-suite personnel to senior management in some instances; and provides additional recruitment support, including leveraging TA for consultancy and mentoring services and leveraging relationships with existing third parties, e.g., externs.
- **KPIs and Proof Points:** Early-stage businesses, may conduct and incorporate limited operational and financial data analyses, which could result in weak KPI and milestone development. Management often does not have a comprehensive view of the underlying data that informs overall performance. ARAF therefore intends to support companies with analyzing their operations and developing key financial and operational KPIs for continual monitoring.
- **Customer Feedback Loops:** Companies have limited capacity to devote to quality control functions and the development of feedback loops with customers and farmers. ARAF therefore intends to support its portfolio companies by sponsoring farmer surveys and commissioning focus groups.
- **Systems and Analyses:** Start-ups often need robust systems relating to critical functions such as finance and accounting, ESG, legal/compliance, operations, and technology. A lack of appropriate systems could result in limited visibility into the company's operations and an inability to detect issues and inefficiencies. ARAF intends to support portfolio companies with the recruitment of the right staff and engagement of consultants required to develop appropriate systems and procedures; as well as emphasize the importance of implementing corrective actions flagged during annual audits at the board level, review key KPIs and metrics periodically, and assess indications of failure of operating systems.
- **Fundraising:** Early-stage businesses often experience underfunded fundraises, funding delays, sub-optimal financing structures and frequent needs for emergency funding. ARAF plans to actively track cash burn rate and runway of portfolio companies, and to support management teams with guidance on what the business needs to achieve ahead of its next raise (processes that need to be in place, revenue targets, capacity, etc.), fundraising environment, reasonable timelines and well-suited potential investors. This is in addition to supporting the company by evaluating additional investment options and making introductions to potential funders.

Sub-activity 1.3.1.1.– Portfolio company board meetings

114. The Fund Manager aims to obtain either a board seat or board observer seat in portfolio companies, this is typically based on the stage of the company and relatedly, the Fund's ownership holding within the portfolio company. The Fund Manager would seek to fill the board seat based on the specific needs of the company after evaluating capacity gaps against growth plans.

Sub-activity 1.3.1.2 – Ensuring compliance with shareholder agreements

115. Following the investment, the Fund Manager will typically create a 100-day plan to ensure that requirements, particularly the conditions subsequent to the transaction close, are met in good time. This is reviewed and monitored during monthly check-in meetings with the portfolio company management. Additionally, the Fund Manager will typically review corporate actions (and other items and/or situation covered in the definitive transaction agreements) proposed by portfolio companies against the reserve matters and thresholds in the definitive transaction agreements to understand the agreed-on parameters governing its response.

Sub-activity 1.3.1.3 – Portfolio support across financial management, talent, impact/ESG management, capital raise, etc.

116. The Fund Manager seeks to utilize board meetings, monthly management calls, management reports and various other touchpoints to keep up to date on developments within portfolio company's operations, which would typically enable the Fund Manager identify areas where portfolio companies require support towards meeting their objectives. The Fund Manager intends to be a hands-on partner to portfolio companies, offering insights, analyses, access, connections to information, strategy and resources that facilitate the continued growth and impact of portfolio companies.

Sub-activity 1.3.1.4 – Annual Reporting to LPs, stakeholders

117. The Fund Manager intends to obtain information rights from all portfolio companies within a timely period that facilitates reporting obligations to Limited Partners. The Fund Manager intends to maintain a dedicated reporting manager with responsibility for coordinating the reporting process and meeting reporting obligations to Limited Partners.

Activity 1.3.2: LEVERAGE CAPITAL AND MANAGE EXITS

118. Exit consideration begins during the investment phase with analyses of the most feasible path to exit incorporated into the assessment of investment opportunities and choice of investment instruments. However, exit planning starts during the investment management phase. ARAF tries to proactively manage its investments towards a successful exit by partnering with management teams to build attractive businesses that are tapping into strong market opportunities with large demand backing; continue to develop new opportunity sets and ways to capture additional value; have proper processes and controls in place; are appropriately staffed and developing employees for continued expansion and greater responsibility; and who have identified, are monitoring and managing a broad spectrum of risks ranging from political, macro-economic, regulatory, environmental, market and operational, etc. From the onset of the investment, ARAF also tries to introduce portfolio companies to as many potential investors and/or acquirers as the fund encounters, so that founders and management teams are aware of what these investors are looking for, and/or can begin to build relationships that might crystallize into future partnership opportunities.

Sub-activity 1.3.2.1– Manage exit process by identifying exit potential in the portfolio, narrowing down on options, and executing closure of transaction:

119. The Fund Manager seeks to assess the exit potential of investment opportunities during the initial evaluation phase; engage identified exit counterparts to establish interest; guide portfolio companies' growth, performance, operations and capacity with a view to developing into an attractive investment opportunity to larger stakeholders; connecting portfolio companies with interested strategic and/or financial investors; assisting portfolio companies in executing an exit process.

ACTIVITY 1.4: MONITOR PORTFOLIO ON ROBUST IMPACT METRICS (INCLUDING ESG, GENDER, CLIMATE)

120. At the beginning of the portfolio management phase of ARAF's engagement with a company, just shortly after the transaction close, ARAF typically discusses the key elements of its portfolio management practices to ensure alignment going forward, including: board representation and participation, timelines for information rights and reporting obligations, Environmental and Social Action Plan (ESG Action Plan), Gender Action Plan ("GAP"), 100-day plan (all of which are rights and obligations that have previously been agreed on and which are reflected in the legal documentation), as well as, annual lean data surveys, TAF and monthly management calls.
121. ARAF actively monitors ESG matters in portfolio companies from the point of investment onwards. This monitoring typically includes 1) monitoring ESG risk areas, 2) assessing progress made on the ESG Action Plan, and 3) evaluating any changes in the business, which might create additional ESG risks. ARAF's usual practice is also to monitor gender statistics and action plan progress in portfolio companies from the point of investment onward. Such monitoring typically includes assessing the progress made on implementing the GAP prepared by ARAF and agreed to by the company. The GAP is created based on gaps identified through a gender assessment conducted during the DD phase. This GAP could be supported by an allocation from the Technical Assistance Facility, as required.
122. The ARAF team intends to track standard financial metrics, social performance, ESG metrics and ongoing market trends in the industries and geographies in which ARAF's portfolio companies operate, in each case as reported and audited by portfolio companies. ARAF intends to review investee companies' financial and impact performance against the target for the year. ARAF would typically then engage with companies regarding their objectives and targets for the following year and towards agreeing on a formal plan, which is subsequently approved by the company's Board.
123. With respect to financial reporting, ARAF plans to pay particular attention to top and bottom-line trends, margins, cash balance, cash flow requirements, as well as any other significant changes in financial performance and health. ARAF also intends to monitor operational metrics and ongoing working capital needs. With respect to social performance tracking, ARAF intends to monitor metrics which are agreed upon with each portfolio company's management at the time of the initial investment. These typically include units sold as a proxy for lives impacted as well as other important social data points that are gathered as part of ongoing operations.
124. ARAF aims to prepare and share quarterly fund reports with limited partners covering portfolio and fund updates which cover financial performance, macro-economic updates, business expansion strategies, company challenges and risks and impact metrics. ARAF aims to share an annual impact report that contains insights from the Lean Data surveys discussed above with its limited partners. Additionally, ARAF intends to report on the Fund and investee companies' ESG progress and compliance. The Fund also intends to prepare annual reports for its limited partners including the GCF APR within 120 days from the year end. ARAF plans to organize an annual LPAC meeting to update its investors on the Fund's activities and performance.
125. To monitor ongoing market trends, ARAF typically enquires about key hires and departures, strategic priorities and any ongoing regulatory and legal processes. Where required, ARAF may look to tranche its investment, with specific requirements for additional disbursements. In these scenarios, ARAF is likely to aim to monitor progress against established milestones to anticipate future funding needs.

Sub-activity 1.4.1 – Quarterly and Annual financial and impact reporting received from the portfolio companies

126. The Fund Manager intends to obtain information rights from all portfolio companies within a timely period that facilitates reporting obligations to Limited Partners. The Fund Manager intends to maintain a dedicated

reporting manager with responsibility for coordinating the reporting process and meeting reporting obligations to Limited Partners.

Sub-activity 1.4.2 – Synthesize and share results from annual surveys on portfolio companies

127. The Fund Manager intends to conduct periodic surveys on smallholder farmers engaged with portfolio companies, which is expected to enable the Fund to assess, understand and gain insights on the impact of portfolio companies activities on smallholder farmers. The Fund Manager intends to assist portfolio companies in incorporate actionable insights from the surveys into their strategy and operations towards improving their services to farmers. The Fund Manager also aims to share these insights and learns broadly with the ecosystem.

Sub-activity 1.4.3 – Tracking and managing for the development of ESG risk areas

128. Post-investment, the Fund Manager intends to actively monitor ESG matters in portfolio companies across the following activities: 1) monitoring ESG risk areas, 2) assessing progress made on the ESG Action Plan, and 3) evaluating any changes in the business, which might create additional ESG risks.

Sub-activity 1.4.4 – Annual Monitoring

129. Every year, the Fund Manager receives, reviews and monitors budgets, audited financial statements, ownership confirmation, and tax payment confirmation from all of its portfolio companies.

COMPONENT 2: TECHNICAL ASSISTANCE FACILITY (TAF)

130. To maximize the climate resilience impact of the Equity investments and augment the activities of the ARAF Fund II, Acumen is raising a \$12MM Technical Assistance Facility (“TAF”) alongside the Fund. The purpose of this Grant funded TAF intends to be to support portfolio companies. TAF support aims to help companies improve their business and operational capabilities. ARAF also intends to use the TAF to ensure that companies can maximize their climate impact while having strong management systems to address environmental, social and governance risks.
131. The design of the TAF builds on the experience of the ARAF Fund I TAF, which as of December 31, 2023, had deployed more than \$2.6MM in grants into projects focused on climate adaptation, conducting impact surveys, and helping portfolio companies build their capacity, systems, and operations. The design also reflects important fund and company priorities based on our close engagement with ARAF I portfolio companies and the broader climate resilience ecosystem. The ARAF II TAF builds on this experience with a focus on targeted interventions in four areas: (1) Climate adaptation interventions & Gender specific initiatives (2) Business development services & Diversity, (3) Lean data support and (4) Other ((TA Audit Fees/ Legal Fees/ Environmental, social governance (ESG) reporting).
132. The executing entity for the TAF is the Manager, Acumen Capital Partners, LLC. As provided below in Section B.4, TAF decisions are made by the Technical Assistance Committee. The Manager is responsible for reviewing, approving, and monitoring all TA projects. TA projects are, however, fully executed by the portfolio companies who in turn have the responsibility to hire consultants/third party providers in line with the approved TA applications. Consultants enter short-term (i.e. less than 12 months) contracts with ARAF portfolio companies with specific scoping and specific deliverables. Previous contracting has included ESG assessment and consultation, irrigation consultancies, smallholder pilots, in-person and digital farmer training development, and senior management coaching, etc.

133. As noted in sub-activities 2.2 below, ARAF's Technical Assistance Facility provides support across four different categories, farmer training and gender initiatives, business development, impact measurement and ESG/Audit. In practice, ARAF's portfolio companies apply for TA support under one of these categories. Applications are for up to \$50K (cost share) for Business Development and ESG, and 100K (no cost share) for farmer training and gender initiatives. Impact measurement is entirely managed through third parties. Companies complete TA projects in less than 12 months and are then reimbursed for the cost share component once all deliverables, including required reporting, are complete.
134. All ARAF portfolio companies are eligible to apply for TA projects. TA projects should be of strategic and operational benefit for the business and will be evaluated based upon technical strength, value for money and reputation of consultant.

Key Outputs, Co-benefits, and activities under Component 2: TAF

- Output 4: Companies enhance female participation and inclusion in the agricultural value chain
- Output 5: Capital leveraged via co-investments and partnerships
- Co-Benefit 1: Female farmers to have improved access to training, and company offerings and Improved inclusivity in the agricultural value chain
- Co-benefit 2: Improved inclusivity in the agricultural value chain

ACTIVITY 2.1: SET UP AND FUNDRAISING OF THE TECHNICAL ASSISTANCE FACILITY

Sub-activity 2.1.1. – Set up of the TAF

135. Setting up the TAF includes establishing the key operational structures for the facility, fundraising/co-financing, constitution of the Technical Assistance Committee and approval of the operational manual. This activity can also include conducting portfolio company baseline impact/climate performance, deploying grant funding to approved initiatives, and monitoring performance against impact targets.
- 2.1.1.1 – Complete TAF fundraising from co-financiers. Set up of the Technical Assistance Facility.
 - 2.1.1.2 – Establish the Technical Assistance Committee (TAC) and approve TA operational manual. Appointment of the Technical Assistance Committee members and official formation of the Committee, in alignment with the grant Funding Activity Agreement.

Sub-activity 2.1.2 – Needs assessment of portfolio gaps

- 2.1.2.1 – Identify partners and service providers to assess operational, commercial, staffing, and governance gaps within ARAF's portfolio companies. This sub-activity shall include identifying and building partnerships with potential service providers to address the aforementioned gaps and creating a roster of services and solutions providers to share with portfolio companies.
- 2.1.2.2 – Engage consultants to carry out specific impact assessments around farmer well-being and climate resilience. These assessments are intended to be used to inform future TAF interventions.

ACTIVITY 2.2: TECHNICAL ASSISTANCE FOR ENHANCING CLIMATE ADAPTATION AND GENDER INITIATIVES, ESG, BUSINESS DEVELOPMENT, AND IMPACT MEASUREMENT

Sub-activity 2.2.1: Technical Assistance for impact measurement including data collection and analysis on farmer wellbeing and climate resilience. Every year, ARAF intends to conduct impact assessments on a sub-section of smallholder farmers. For these surveys, data is collected via telephone in the farmers local language to consistently gather insights from farmers served by ARAF's investee companies. This data is expected to be instrumental in tracking each company's business and social performance.

Sub-activity 2.2.2: Technical Assistance for training and extension services to increase farmer resilience; to increase gender inclusion; to increase portfolio company operational efficiency, and to increase ESG and auditing compliance.

- Sub-activity 2.2.2.1: Support training and extension services to enable smallholder farmers to adopt climate-resilient inputs and practices. To support training and extension services to enable small holder farmers to adopt climate resilient inputs and practices and be able to access critical weather information to make more informed decision about their crops/livestock.
- Sub-activity 2.2.2.2: Shifting smallholders to value chains that better align with a changing climate environment. The TAF is expected to support specific training on regenerative farming practices (soil testing, crop rotation, zero tilling), livestock management and productivity, introduction of / to drought resistant inputs, climate-smart product demonstrations and use cases, etc.
- Sub-activity 2.2.2.3: Gender initiatives – The TAF intends to support companies with gender disaggregated data to help identify gendered gaps in service delivery and impact. The TAF aims to further provide funding to improve impact/outcomes for female farmers. Activities might include trainings at times and locations that are better suited to female farmers, specific selling or education strategies that have proven to be effective when working with women (i.e. women like products/services that save them time, and men prefer products/services that save them money), etc.

Sub-activity 2.2.3: Business development activities – The TAF is expected to help investee companies address common operational and commercial barriers to scale such as sales and marketing, human capital, and organizational capacity. Needs shall be assessed during due diligence and new initiatives are expected to be proposed and implemented by the investee companies.

Sub-activity 2.2.4: TA Audit Fees and ESG – The TAF intends to help portfolio companies to develop tailored ESG toolkits and Environmental and Social Action Plans to improve overall business decision-making on climate impact. The fund expects that ESG consultants will be leveraged to develop policies and accountability systems to move portfolio companies along a continuum of ESG compliance. The TAF also plans to assist portfolio companies build capacity by conducting Environmental and Social Impact Assessments (“ESIA”).

TAF mandate and sizing²¹³

136. Acumen’s experience with ARAF Fund I has shaped the scope and scale of the proposed Technical Assistance Facility (TAF). The design reflects key insights gained from close collaboration with portfolio companies of ARAF Fund I and engagement within the broader climate venture ecosystem over the last four years. The proposed \$12MM TAF represents 10% of the targeted fund size of \$120MM. This allocation is largely aligned with industry benchmarks²¹⁴. A Convergence Study examining 136 technical assistance facilities found that, on average, such facilities constituted approximately 12% of the investment fund amount²¹⁵. Further, a 2014 World Bank policy research paper indicated that technical assistance for investee companies of private equity and venture capital funds typically range between 7% and 15% of the investment’s value, while technical assistance facilities themselves vary between 6% and 20% of the total fund size, with an average of approximately 10%²¹⁶. In addition, proprietary research by SME investment manager Jacana Partners (formerly InReturn) revealed an average funding-to-fund size ratio of around 11% for Technical Assistance Facilities based on an analysis of ten funds in Africa.²¹⁷

Eligible transactions

²¹³ Swe, May. 30 Dec. 2021, pdf.usaid.gov/pdf_docs/pdf.usaid.gov/pdf_docs/PA00Z3PD.pdf. Accessed 29 April 2024

²¹⁴ Swe, May. 30 Dec. 2021, pdf.usaid.gov/pdf_docs/pdf.usaid.gov/pdf_docs/PA00Z3PD.pdf. Accessed 29 April 2024

²¹⁵ Swe, May. 30 Dec. 2021, pdf.usaid.gov/pdf_docs/pdf.usaid.gov/pdf_docs/PA00Z3PD.pdf. Accessed 29 April 2024

²¹⁶ Swe, May. 30 Dec. 2021, pdf.usaid.gov/pdf_docs/pdf.usaid.gov/pdf_docs/PA00Z3PD.pdf. Accessed 29 April 2024

Beneficiaries of the TAF are expected to be provided with various types of assistance tailored to their needs and requirements, in accordance with the TAF's mandate. This assistance may include:

- Grant funding for climate adaptation and gender initiatives
- Provision of technical expertise and professional services through third party consultants

Technical Assistance experience and learnings from ARAF Fund I

137. After implementing ARAF I's TAF for the past four years, ARAF II has identified learnings that have informed the design of the ARAF II TAF.

- Human Capital and Talent Management – Early-stage companies often lack seasoned senior management and struggle to find good talent. Although provisions are included in the projections, the effort required to recruit and retain top talent is often underestimated. ARAF provides additional recruitment support through leveraging TA for consultancy and mentoring services and leverage relationships with existing third parties, e.g., externs, headhunters, expert networks, the fund's network.
- Systems and Analyses - Start-ups often need robust systems relating to critical functions such as finance and accounting, ESG, legal/compliance, operational, and technology. The lack of systems often results in a lack of visibility in the company's operations and the inability to detect faults. The TAF can support investee companies with recruitment of the right staff and consultants required to develop the appropriate systems and procedures
- Change in Farmer Behaviour – ARAF has noted some areas that farmers are slow in adopting good agronomy practices emphasizing the need for continuous training and delivering climate information to farmers. The TAF aims to support farming training initiatives that lay the foundation for in-house / in-company farmer training business models that can continue beyond the TAF-funded initiative. The TAF expects to encourage companies to incorporate farmer training at every touch point, develop training manuals, and pilot both virtual and in-person training models.

COMPONENT 3: INSIGHTS AND KNOWLEDGE SHARING

ACTIVITY 3.1: PARTNER WITH CO-INVESTORS AND STAKEHOLDERS TO AMPLIFY IMPACT

138. ARAF aims to continue to solidify its position as an ecosystem builder and thought leader by collaborating with co-investors and other stakeholders to share insights that progress the conversations and influence action and deliver impact. The Manager is the Executing Entity for Component 3.

Sub-activity 3.1.1: ARAF works with co-investors to increase capital access to target pipeline companies.

139. ARAF maintains a unique position within the African agriculture investing sector, given the Fund's sectorial focus on agriculture, which provides technical depth, expertise, and the privileged position to identify emerging trends. Accompanied with ARAF's presence within multiple geographies, which provides exposure to widespread innovation within the agriculture sector and access to various types of investment opportunities. Finally, the significant experience in agriculture and impact investing within the ARAF team, as well as, our monitoring farmer experience through surveys enables the Fund to gain insights both from investing and our TAF activities, which we aim to share with co-investors (where applicable) towards building the ecosystem.

140. ARAF has found that these characteristics, in addition to its reputation, typically provide the necessary credibility with other investors (both equity and debt) that enables the Fund to introduce investment opportunities to investors with the intention of bringing them onto deals as co-investors. In ARAF I, the Fund led the syndication of several deals, ensuring the success of the raise. ARAF intends to extend fundraising support beyond the

investment period through to the management period, during which ARAF aims to continually introduce potential investors to portfolio companies.

141. An investment in ARAF II has the potential to attract additional private sector capital into the sector at the portfolio company level, ultimately increasing the scale and impact of climate resilient agribusinesses operating locally within countries.

Sub-activity 3.1.2: ARAF shares knowledge and learnings gained across the portfolio to amplify fund impact.

142. Given the historical perception of investing in agriculture, especially in Africa; ARAF, as the first climate fund focused on agribusiness SMEs that serve vulnerable populations in Africa, views its role as contributing to the development and growth of the ecosystem. Accordingly, ARAF II aims to continue to share learnings with the wider impact investing community through participation at conferences and publication of articles and thought pieces. ARAF's intention is for its insights to strengthen the knowledge and practices within the sector towards generating more impact across board.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

143. Executing Entities

The Executing Entities for ARAF II are:

- The Manager: Acumen Capital Partners LLC, a limited liability company formed under the laws of the State of Delaware, and a wholly owned subsidiary of the Sponsor ("Manager" or "ACP"), engaged by the General Partner for the day-to day operations and management of the Fund. ACP is 100% owned by Acumen Fund, Inc (the "Accredited Entity" or "AE").
- The General Partner: Acumen Resilient Agriculture Capital Investments LLC, a limited liability company formed under the laws of the State of Delaware. The General Partner is wholly owned by ACP.
- The Fund: Acumen Resilient Agriculture Fund II, LP, an Ontario Limited Partnership ("ARAF II" or the "Fund").

144. The Funding Activity Agreement (FAA) will be between the Accredited Entity and GCF. The AE will enter into a Subsidiary Agreement with the Executing Entities to ensure compliance with the FAA requirements. The Investors in ARAF II will become limited partners of the Fund through the limited partnership agreement and make commitments to the Fund through their subscription agreements with the Fund. The General Partner and the Manager will enter into a Management Agreement under which the General Partner will delegate certain obligations to the Manager as per the terms of the limited partnership agreement.

145. The Manager will adhere to all the relevant policies of Acumen that GCF reviewed in the re-accreditation of Acumen in 2022. It is possible that there will be some policies that differ between Acumen and the Manager; unlike Acumen, the Manager is not a tax-exempt entity. These policies will be relevant for tax purposes and not related to the fiduciary, social and environmental, anti-corruption, and investment diligence processes upon which Acumen was accredited. During the implementation, Acumen will provide oversight and quality assurance in accordance with its policies and procedures and any specific requirements in the Accreditation Master Agreement (AMA) and FAA to be agreed with GCF. A diagram of the anticipated legal organizational structure for Acumen, the Manager, Fund, and Investors is below.

146. AE Experience

Acumen became a GCF Accredited Entity in 2016. Acumen is an AE that has three funding proposals in implementation. The first program is KawiSafi Ventures, a venture capital fund focused on creating clean energy access in East Africa, and is at the end of its investment period, impacted over 150 million low-income individuals and offset approximately 35 million metric tons of carbon dioxide and kerosene. The second program is Acumen resilient Agriculture Fund, a venture capital fund focused on building climate resilience for smallholder farmers in West and East Africa. The third program is Energy Access Relief Fund, a debt fund focused on providing concessional capital to support businesses in the solar home system sector survive the impacts of COVID, and is in the middle of its investment period. In addition, for over 20 years, Acumen has been directly investing in small and medium-sized enterprises that serve low-income communities in developing countries across South Asia, Sub-Saharan Africa, and Latin America, with the goal of changing the way the world tackles poverty. As of the end of 2023, Acumen had deployed approximately \$168 million into 167 companies, impacting over 500 million lives.

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

147. GCF participation in ARAF II will be instrumental in catalyzing additional capital into the Fund, particularly private capital. ARAF I was able to leverage GCF investment by 1.5x, and the intention is to double this multiple to 3x in ARAF II. Although African governments have committed US\$264B towards financing their NDCs between 2020 and 2030, the commitment covers just under 10% of the up to US\$2.8T required by the NDCs²¹⁸. Additionally, private capital markets in many Africa countries are not very well developed, and their capacities remain shallow, with much of the capital coming from outside the region. Moreover, agriculture does not attract a considerable proportion of investment flows, as most of the venture funding in Africa is focused on FinTech rather than AgTech, which only accounted for 3% of investments in 2022 (vs. 31% for FinTech)²¹⁹. Furthermore, in Africa, there is an estimated US\$74B financing gap for agribusinesses.²²⁰ Moreover, despite the crucial need for equity to capitalise agribusinesses, private equity and venture capital funds contribute only US\$0.5B in equity financing to the market annually.²²¹ The US\$0.5B from private equity and venture capital funds represents approximately 0.7% of the needed funding for the sector.²²² ARAF II expects to leverage the success of ARAF I to attract new investors, particularly private capital providers, and the continued support from the GCF will signal a strong vote of confidence for ARAF's ability to bring climate resilience to smallholder farmers by making the agriculture value chain more resilient, while delivering solid returns.
148. In 2020, global climate funding amounted to approximately US\$580B, out of which only 1.7 % (US\$10B) targeted smallholder farmers.²²³ The 1.7% covers only a small fraction of the climate mitigation and adaptation needs of smallholder farmers.²²⁴ Funds such as ARAF are urgently needed in Africa to catalyze private climate finance towards investing on the continent, particularly in underfunded and climate vulnerable sectors, like agriculture. The participation of private climate finance as a percentage of total climate finance in Africa lags the global

²¹⁸ African Development Bank, 2023, www.afdb.org/sites/default/files/www.afdb.org/sites/default/files/aeo_2023-chap2-en.pdf. Accessed 11 Mar. 2024.

²¹⁹ <https://partechpartners.com/2022-africa-tech-venture-capital-report/> - 2022_Partech_Africa_Tech_VC_Report.pdf

²²⁰ Commercial Agriculture for Smallholders and Agribusiness (CASA), The state of the Agri-SME sector-Bridging the finance gap, 2022, <https://www.casaprogramme.com/wp-content/uploads/2022/03/the-state-of-the-agri-sme-sector-bridging-the-finance-gap.pdf>

²²¹ Commercial Agriculture for Smallholders and Agribusiness (CASA), The state of the Agri-SME sector-Bridging the finance gap, 2022, <https://www.casaprogramme.com/wp-content/uploads/2022/03/the-state-of-the-agri-sme-sector-bridging-the-finance-gap.pdf>

²²² Commercial Agriculture for Smallholders and Agribusiness (CASA), The state of the Agri-SME sector-Bridging the finance gap, 2022, <https://www.casaprogramme.com/wp-content/uploads/2022/03/the-state-of-the-agri-sme-sector-bridging-the-finance-gap.pdf>

²²³ Climate Policy Initiative and the International Fund for Agricultural Development, Examining the Climate Finance Gap for Small-Scale Agriculture, 2020, https://www.ifad.org/documents/38714170/42157470/climate-finance-gap_smallscale_agr.pdf/34b2e25b-7572-b31d-6d0c-d5ea5ea8f96f?t=1605021452000

²²⁴ Climate Policy Initiative and the International Fund for Agricultural Development, Examining the Climate Finance Gap for Small-Scale Agriculture, 2020, https://www.ifad.org/documents/38714170/42157470/climate-finance-gap_smallscale_agr.pdf/34b2e25b-7572-b31d-6d0c-d5ea5ea8f96f?t=1605021452000

equivalent, at 14% compared to 50% on a global basis²²⁵. Private capital has been inhibited by real and perceived risks, small ticket sizes and limited ability to adequately diligence opportunities. ARAF addresses many of the commonly referenced impediments to investing on the continent, through a combination of investment expertise and deep experience, impact focus, and on the ground presence, which facilitates an expansive pipeline, through due diligence, monitoring, and subsequent support of investee companies to scale. Incorporating GCF's first loss capital to the fund, is a critical characteristic of the fund, and a fundamental incentive for crowding in much needed private capital into climate adaptation.

149. Furthermore, only 7% (US\$700MM) of the US\$10B earmarked for small-scale agriculture goes to value-chain actors, like agri-SMEs, who are critical to strengthening the entire value chain and well-positioned potential to deliver additive impact.²²⁶ ARAF I's investment thesis was derived from Acumen's learnings through its decade of investing in agribusinesses across several developing markets and was based on the premise that these ecosystem businesses can drive change for smallholder farmers by facilitating access and adoption of inputs, financial products, knowledge and insights and markets. ARAF I set out to prove the thesis, that smallholder farmers and the value chain, can be made more climate resilient by investing in and scaling the agri-SMEs that provide farmers with bundled products and services across the value chain, thereby also strengthening the entire value chain.

150. The GCF's ability to provide first loss capital provides significant downside protection for risk adverse private capital, which is essential given the level of risk associated with investing in agriculture and the relatively early nature of investing in climate adaptation. ARAF I experience and subsequent discussions with impact investors reveal that the first loss buffer provided by the GCF capital acts as essential bridge between the commercial return profile and the high impact potential, enabling ARAF to take on the perceived greater risk at a lower return threshold. In discussions with existing investors, many have revealed that they would have been unable to participate in ARAF I without the risk mitigation provided by the GCF first loss capital, similarly, from initial discussions, prospective investors in ARAF II are particularly interested in the risk mitigation that the GCF's first loss capital provides. Consequently, ARAF II seeks to replicate and scale the blended capital structure of ARAF I on a 1:3 basis, by proposing that the GCF provides Catalytic First Loss Capital of US\$30MM as junior equity, to crowd in the senior equity layer of US\$90MM.

- Limited Partners require a structure that includes first loss capital for the following reasons:
 - a. Historically, the agricultural sector in Africa has been perceived as high risk. Although ARAF I's progress and performance has largely been positive, the fund is still very early in its lifecycle and would need to record additional exits to truly cement its track record. For the sector more broadly, additional time and more consistent performance across multiple fund managers and funds is necessary to shift widely held and long-standing perceptions.
 - b. Additionally, ARAF is a single-sector focused fund, focused on agriculture, competing for DFI investment allocation with sector agnostic funds.

These two factors put ARAF II at a disadvantage in attracting investment fund, one that is addressed by the application of first loss capital across all investor types, including DFIs.

151. The GCF is one of the foremost authorities on investing towards climate resilient development pathways for sustainable growth and combatting climate change. As one of the largest and most influential investors in the climate space, the GCF provided ARAF I with the opportunity to leverage learnings from across its portfolio. Our team is fortunate to have the GCF investment, which also acts as a stamp of approval that provides credibility around adaptation finance best practices. This credibility has been beneficial in ARAF's engagements with other capital providers, as well as, at the macro-country level.

²²⁵ 19 Sept. 2022, fsdafira.org/wp-content/uploads/2022/09/fsdafira.org/wp-content/uploads/2022/09/1.-Landscape-of-Climate-Finance-in-Africa-I-Full-report.pdf. Accessed 11 Mar. 2024.

²²⁶ Commercial Agriculture for Smallholders and Agribusiness (CASA), The state of the Agri-SME sector-Bridging the finance gap, 2022, <https://www.casaprogramme.com/wp-content/uploads/2022/03/the-state-of-the-agri-sme-sector-bridging-the-finance-gap.pdf>

152. Beyond mobilizing private capital for ARAF I, the GCF is also the anchor investor in ARAF I's Technical Assistance Facility ("TAF"). The GCF was the first investor to commit to the TAF and its participation was a key element in convincing other investors to contribute to the facility. The US\$6MM in grant money requested from the GCF for ARAF II's TAF will enable ARAF to continue to train small holder farmers on good agricultural practices and adopting farming practices that will increase their resilience. Furthermore, the grant capital that the TAF provides supports projects and initiatives that companies would otherwise be unable to pursue due to limited resources.

B.6. Exit strategy (max. 500 words, approximately 1 page)

153. Exit potential is a fundamental component of ARAF's investment strategy and fund structure, thus exit strategy is factored into:

- Analysis and discussions from the onset of evaluating investment opportunities
- Investment Committee discussions
- Monitored through the investment holding period for opportunistic engagements.

154. The ability to exit is a function of the underlying fundamentals of the business and the attractiveness of the sub-sector into the long run; the company's ability to scale and attract additional investors, whether strategic or financial, who are compelled to buy out existing investors; and the investment instrument utilized. ARAF and Acumen have significant institutional knowledge around investing in agriculture and investing in Africa which is expected to contribute to ARAF's ability to understand and manage exit considerations well.

155. The need to exit guides ARAF's investment activity, which is focused on supporting high-growth, scalable agribusinesses with viable business models that improve the livelihoods of vulnerable farming households. ARAF's investment team assesses the strategic and commercial merits of investment opportunities to understand their value proposition, size of the market opportunity, likelihood of capturing the market, execution potential of the management team, etc., with the intention of estimating the company's potential for scaling during the investment holding period. The team considers the company's potential revenue five years into the future, the opportunity sets that can generate the target revenue, the risks involved, cost structure / unit economics, number of years to profitability, and CAPEX outlay, amongst other assessments. The expectation is that after an initial period of implementing and executing on their growth strategies, investee companies can demonstrate continued financial progress and/or improve their financial profile, which enables them to attract additional external capital from multiple sources. This expectation has borne out positively in ARAF I, with four portfolio companies raising follow-on rounds, and an additional five portfolio companies currently advancing fundraising rounds.

156. Smallholder farmer affordability of services, solutions, and/or products is a key determinant of the commercial viability and scalability of ARAF portfolio companies. Accordingly, during the initial assessment of investment opportunities, ARAF assesses farmers' willingness to pay, and the prevalence of other value chain players with commercial imperatives to provide the services to farmers for free and/or on credit with reasonable repayment terms. Additionally, during the field visits for commercial due diligence, ARAF investigates smallholder farmer ability to pay by learning directly from the farmers about their previous practices and available substitutes to verify the value proposition and competitiveness of the products and services. Finally, ARAF continues to monitor farmers' ability to pay to assess the sustainability of the businesses. ARAF continuously gathers intelligence from our annual surveys, as well as from our positions on the board (where pricing increases and/or the customers' ability to pay would be analyzed in connection to revenue discussions). ARAF continuously solves for farmer liquidity and willingness to pay towards protecting the financial viability and sustainability of the companies and their long-term attractiveness to larger capital providers. Some examples of pricing models utilized by ARAF I portfolio companies (some of which were piloted using ARAF TA funding) include:

- subsidy models – through irrigation as a service (where farmers do not have to make upfront CAPEX payments for irrigation, but rather are able to pay as they use);

- provision of credit to farmers, as done by Tomato Jos (who provide access to input credit – in-kind) and SunCulture, who provide their pumps on credit, and allow farmers to pay for the product over a 2-year period.
157. ARAF supports investee companies with strategic and operational guidance, as well as access to experts and consultants, all towards ensuring that our investee companies grow to be financially sustainable enterprises. ARAF has, and intends on continuing to, introduce investee companies to debt and equity capital providers, even as early as during the investing process. The aim is to expose investee companies to as many capital providers as possible to generate interest on the part of the capital provider, but also to obtain useful information about what may be attractive to potential capital providers and understand at what investment stage particular investors may become interested in a company.
158. ARAF II aims to be structured as a limited partnership with a 10-year term, with the possibility to extend for two consecutive one-year periods. ARAF II expects to invest in fast-growing SMEs with attractive, viable and sustainable business models that are poised to acquire substantial scale in the short to medium term. Exits in portfolio company investments are expected within 5-7 years either through a sale of its shares to strategic or financial investors. In some cases, ARAF II may structure the investment with a self-liquidating instrument, such that the investee company repays ARAF II after an agreed on holding period via a revenue or income share. These exit strategies are evaluated and substantiated during the evaluation stage of the investment process and are an integral part of due diligence. Given that ARAF II intends to invest in early-stage companies, for equity deals, there is minimal expectation of distributions during the holding period of the investment, however, quasi-equity deals oftentimes have a distribution component. Most of the returns are expected at exit or at the end of the investment tenor.

C. FINANCING INFORMATION						
C.1. Total financing						
(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount			Currency		
	USD 34 MM			million USD (\$)		
GCF financial instrument	Amount	Tenor	Grace period	Pricing		
(i) Senior loans	<u>Enter amount</u>	<u>Enter years</u>	<u>Enter years</u>	<u>Enter %</u>		
(ii) Subordinated loans	<u>Enter amount</u>	<u>Enter years</u>	<u>Enter years</u>	<u>Enter %</u>		
(iii) Equity	USD 30 MM			Enter		
(iv) Guarantees	<u>Enter amount</u>	<u>Enter years</u>				
(v) Reimbursable grants	<u>Enter amount</u>					
(vi) Grants	USD 4 MM					
(vii) Results-based payments	<u>Enter amount</u>					
(b) Co-financing information	Total amount			Currency		
	USD 98MM			million USD (\$)		
Name of institution	Financial instrument	Amount	Currency	Tenor & grace	Pricing	Seniority
Other Investors (DFIs, Foundations, Family Offices, Private Institutions)	<u>Equity</u>	<u>USD 90 MM</u>	<u>million USD (\$)</u>	<u>Enter years</u> <u>Enter years</u>	Enter	<u>senior</u>
Other Investors (DFIs, Foundations, Family Offices, Private Institutions)	<u>Grant</u>	<u>USD 8 MM</u>	<u>million USD (\$)</u>	<u>Enter years</u> <u>Enter years</u>	<u>Enter%</u>	<u>Options</u>
Click here to enter text.	<u>Options</u>	<u>Enter amount</u>	<u>Options</u>	<u>Enter years</u> <u>Enter years</u>	<u>Enter%</u>	<u>Options</u>
Click here to enter text.	<u>Options</u>	<u>Enter amount</u>	<u>Options</u>	<u>Enter years</u> <u>Enter years</u>	<u>Enter%</u>	<u>Options</u>
(c) Total financing (c) = (a)+(b)	Amount			Currency		
	USD 132 MM			million USD (\$)		
(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)	<p>Please explain if any of the financing parties including the AE would benefit from any type of guarantee (e.g. sovereign guarantee, MIGA guarantee).</p> <p>Please also explain other contributions such as in-kind contributions including tax exemptions and contributions of assets.</p> <p>Please also include parallel financing associated with this project or programme (refer to the co-financing policy).</p>					
C.2. Financing by component						

Please provide an estimate of the total cost per component and output as outlined in section B.3. above and disaggregate by source of financing. More than one co-financing institution can fund a single component or output.

Component	Output	Indicative cost million USD (\$)	GCF financing		Co-financing		
			Amount million USD (\$)	Financial Instrument	Amount million USD (\$)	Financial Instrument	Name of Institutions
Component 1: <u>Equity Fund (ARAF II)</u>	Activity 1.1: <u>ARAF II Fundraising, Build on existing pipeline, Screen new target markets</u>	<u>1.86</u>	<u>0.47</u>	<u>Equity</u>	<u>1.39</u>	<u>Equity</u>	<u>Click here to enter text.</u>
	Activity 1.2: <u>Invest in local agribusinesses across three strategic themes: Aggregator Platforms, Digital Platforms, and Innovative Financial Solutions</u>	<u>109.24</u>	<u>27.31</u>	<u>Equity</u>	<u>81.93</u>	<u>Equity</u>	<u>Click here to enter text.</u>
	Activity 1.3: <u>Post investment management, Leverage capital and manage exits</u>	<u>6.04</u>	<u>1.51</u>	<u>Equity</u>	<u>4.53</u>	<u>Equity</u>	<u>Click here to enter text.</u>
Component 2: <u>Technical Assistance Facility (TAF)</u>	Activity 1.4: <u>Monitor portfolio on robust impact metrics (incl ESG, Gender, Climate)</u>	<u>2.85</u>	<u>0.71</u>	<u>Equity</u>	<u>2.14</u>	<u>Equity</u>	<u>Click here to enter text.</u>
	Activity 2.1.1: <u>Set up of TAF</u>	<u>0</u>	<u>0</u>	<u>Choose an item.</u>	<u>Enter amount</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	Activity 2.1.2: <u>Needs assessment of portfolio and eco system gaps</u>	<u>0</u>	<u>0</u>	<u>Choose an item.</u>	<u>Enter amount</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	Activity 2.2.1.1: <u>Conducting Lean Data</u>	<u>3.5</u>	<u>0.5</u>	<u>Grants</u>	<u>3.0</u>	<u>Grants</u>	<u>Click here to enter text.</u>

	<u>data collection services and evaluation</u>						
	<u>Activity 2.2.2.1: Support training and extension services to enable small holder farmers to adopt climate resilient inputs and practices</u>	<u>1.75</u>	<u>1.75</u>	<u>Grants</u>	<u>0</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	<u>Activity 2.2.2.2. Shifting smallholder to value chains that are better aligned with a changing climate environment</u>	<u>0.88</u>	<u>0.88</u>	<u>Grants</u>	<u>0</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	<u>Activity 2.2.2.3: Gender Initiatives</u>	<u>0.87</u>	<u>0.87</u>	<u>Grants</u>	<u>0</u>	<u>Choose an item.</u>	<u>Click here to enter text.</u>
	<u>Activity 2.2.3.1: Technical assistance, such as sales and marketing, human capital, and overall organizational capacity</u>	<u>3.5</u>	<u>0</u>	<u>Choose an item.</u>	<u>3.5</u>	<u>Grants</u>	<u>Click here to enter text.</u>
	<u>Activity 2.2.3.2: Leadership development via board placement, manager development programs, and mentorship</u>	<u>0.3</u>	<u>0</u>	<u>Choose an item.</u>	<u>0.3</u>	<u>Grants</u>	<u>Click here to enter text.</u>
	<u>Activity 2.2.3.3: Community engagement for portfolio</u>	<u>0.2</u>	<u>0</u>	<u>Choose an item.</u>	<u>0.2</u>	<u>Grants</u>	<u>Click here to enter text.</u>

	company leaders to facilitate knowledge sharing and access to experts, such as CEO summits, capacity building summits, and CEO networks						
	Activity 2.2.4.1: Activities may include: TA audit fees, legal support costs, ESIA completion costs, and ESG reporting costs - developing tailored ESG toolkits and ESAPs to improve overall business decision-making on climate impact.	0.5	0	Choose an item.	0.5	Grants	Click here to enter text.
	Activity 2.2.4.2: Activities include management of TAF activities	0.5	0	Choose an item.	0.5	Grants	Click here to enter text.
Component 3: Insights and Knowledge Sharing	Activity 3.1.1: ARAF works with co-investors to increase capital access to target pipeline	0	0	Choose an item.	0	Choose an item.	Click here to enter text.
	Activity 3.1.2: ARAF shares knowledge and learnings gained across the portfolio	0	0	Choose an item.	0	Choose an item.	Click here to enter text.

	to amplify fund impact					
Indicative total cost (USD)		<u>USD</u>	<u>USD 34M</u>	<u>USD 98</u>		

C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities? Yes No

C.3.2. Does GCF funding finance technology development/transfer? Yes No

If the project/programme is expected to support capacity building and technology development/transfer, please provide a brief description of these activities and quantify the total requested GCF funding amount for these activities, to the extent possible.

GCF funding is intended to support capacity building for smallholder farmers and portfolio company employees, as well as, technology transfer. Drawing from experience in ARAF I, GCF funding has been allocated to cover 100% of the financing earmarked for training smallholder farmers. Provided below is a breakdown of the TAF across the various activities, with corresponding outputs and sub-activities and associated GCF financing requested.

Activity	Outputs	Sub-Activities	Total Budget \$	GCF Financing (%)	Co-Financing (%)	GCF Financing (\$)
Technical assistance for enhancing climate adaptation and gender initiatives, ESG, business development, impact measurement	ARAF II TA \$12MM raised	Set up of TAF	N/A	N/A	N/A	N/A
Lean Data Support to understand and augment the impact of portfolio companies		Needs assessment of portfolio and eco system gaps	N/A	N/A	N/A	N/A
	Number of companies invested in.	Conducting data collection services and evaluation	3.5	14%	86%	0.5
	Number of surveys conducted					
Funding for Climate adaptation interventions including gender specific initiatives	Number of companies invested in.	Support training and extension services to enable small holder farmers to adopt climate resilient inputs and practices	3.5	100%	0%	3.5
	Number of interventions expected to support farmer training	Shifting smallholder farmers to value chains that are better aligned with a changing climate environment				
	Percentage of female farmers					

Business Development Services (BDS) and Management/Employee Training	Number of companies invested in.	Gender Initiatives				
		Technical assistance, such as sales and marketing, human capital, and overall organizational capacity				
	Number of interventions supporting business development	Leadership development via board placement, manager development programs, and mentorship	4.0	0%	100%	0.0
Other (TA Audit Fees/ Legal Fees/ Environmental, social governance (ESG) reporting)/management of TAF activities	Percentage of female employment	Community engagement for portfolio company leaders to facilitate knowledge sharing and access to experts, such as CEO summits, capacity building summits, and CEO networks				
	Number of companies invested in.	Partner with co-investors and stakeholders to amplify impact				
		Number of interventions supporting ESG initiatives	ARAF works with co-investors to increase capital access to target pipeline companies.	1.0	30%	70%
	Volume of technical assistance provided	ARAF shares knowledge and learnings gained across the portfolio to amplify fund impact.				
Total		Management of TA activities				
			12.0	50%	50%	6.0

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's [Initial Investment Framework](#).

D.1. Impact potential (max. 500 words, approximately 1 page)

159. As a group, smallholders are amongst the most disadvantaged and vulnerable in the world. Half of the world's undernourished people, three-quarters of Africa's malnourished children, and the majority of people living in absolute poverty globally are found on small farms²²⁷. Smallholders play a key role not only in food security, but also in generating poverty-reducing agricultural growth²²⁸, stewarding increasingly scarce natural resources, and protecting global systems from some of the worst climate impacts²²⁹. For example, Cote d'Ivoire has a total population of 28.1MM people²³⁰ and 46% of the country's working population is employed in agriculture²³¹. The sector's importance to the labor market is further amplified when considering the rural population exclusively. In rural areas, where approximately half of the population lives, over 75% of people are engaged in agriculture²³². Much of the agriculture sector's contribution comes from smallholder farmers²³³. Agriculture is the main source of income for these households and most families consume what they grow, trade goods for other necessities, and sell their crops for income. Although one crop is used in a variety of ways, households often fall short of their monthly needs²³⁴.
160. ARAF I was built from learnings from Acumen's experience investing in early-stage businesses that enable smallholder farmers across developing countries to improve their productivity and incomes. ARAF's strategy is based on the underlying belief that catalytic impact can be generated by supporting smallholder farmers with bundled solutions that address multiple pain-points along the value chain. ARAF I has achieved considerable success executing this investment strategy and proving out its aforementioned investment thesis. As demonstrated by impacting farmers beyond financial gains, including reduced produce wastage and increased access to credit. ARAF I portfolio companies have innovated financing models, improving productivity, and imparting climate-smart agricultural practices to farmers. ARAF I's activities have catalyzed private capital into climate-resilient agriculture, attracting diverse investors and fostering sustainability. ARAF I has shown initial success in scaling inclusive agribusinesses, enhancing farmers' resilience to climate shocks, and attracting additional private sector capital. ARAF II seeks to continue to advance ARAF I's track record in investing in agribusinesses whose strategy, performance and success require them to go beyond either only sourcing from or supplying discrete services to smallholder farmers and compel them to engage with smallholder farmers towards improving their productivity, farming methods, market access or providing greater risk reduction.
161. ARAF II's investment and impact strategy to enhance the climate adaptation of vulnerable farmers is guided by ARAF's investment experience in the agricultural sector and anchored with Acumen's 10 plus years in the sector. ARAF II intends to target companies who work with farmers to improve their yields, income and diversify their revenue sources by offering them bundled solutions to multiple pain-points across the value chain, including access to inputs; access to financial products (credit and insurance); access to infrastructure (mechanization and irrigation); access to training and information, including good agricultural practices, weather information, price and demand transparency; and access to premium markets. These companies are driven by market forces to ensure that smallholder farmers improve the quality and quantity of their production in a sustainable manner,

²²⁷ Hazell, Peter, et al. "The Future of Small Farms: Trajectories and Policy Priorities." *World Development*, vol. 38, no. 10, 2010, pp. 1349–61, <https://doi.org/10.1016/j.worlddev.2009.06.012>.

²²⁸ IFAD. *Smallholders, Food Security, and the Environment*. International Fund for Agricultural Development, 2013, https://www.ifad.org/documents/38714170/39135645/smallholders_report.pdf/133e8903-0204-4e7d-a780-bca847933f2e#:~:text=Smallholders%20manage%20over%2080%20per,poverty%20reduction%20and%20food%20security. Accessed 5 Apr. 2024.

²²⁹ <http://www.asfg.org.uk/framework-report/introduction-1>

²³⁰ "World Bank Open Data." World Bank Open Data, <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=ZG>. Accessed 4 Mar. 2024.

²³¹ World Bank, "Republic of Cote d'Ivoire: Agricultural Sector Update," June 25, 2019.

²³² Côte d'Ivoire Climate smart agriculture investment plan

²³³ Côte d'Ivoire, Fostering Economic Growth, International Monetary Fund, May 2016.

²³⁴ [CGAP: Understanding the Demand for Financial, Agricultural, and Digital Solutions from Smallholder Households: Insights from the Household Survey in Côte d'Ivoire](#)

sourcing directly from the farmers to eliminate the middlemen and ensure that more of the value produced accrues to the farmers, thereby making smallholder farmers more resilience to climate change.

162. The fund intends to impact 4 million people directly and 16 million indirectly. ARAF II aims to focus its investments on rapidly expanding agri-businesses aimed at assisting smallholder farmers in adapting to climate change. This investment strategy allocates capital to companies providing a comprehensive package of solutions, encompassing farm inputs, training, credit facilities, and market access, a strategy learned from its initial fund. Bundled solutions have been shown to enhance farmer resilience²³⁵, aligning with ARAF’s investment thesis, as ARAF has seen that the broader the service offering, the higher the farmer resilience score. The integration of these goods and services is expected to enhance farm productivity, boost income levels, enhance the quality of life for farmers, and ultimately bolster their resilience to climate challenges.

STAKEHOLDER	NEED FOR IMPACT	ARAF IMPACT CREATION
Farmers	For most small-scale farmers, achieving resilience to climate change remains a distant goal. Many of these farmers depend on rainfall that has become more erratic, with only 1% of farmland in Africa benefiting from irrigation ²³⁶ . Adoption of drought-resistant seeds is uncommon, with uptake rates averaging below 20% across six African nations facing existential climate threats ²³⁷ . Access to credit continues to be a significant challenge ²³⁸ , and microinsurance policies designed to mitigate risks are often overlooked. Moreover, the essential products and services required to bolster climate resilience appear to lack viable business models to effectively reach smallholder farmers.	<ul style="list-style-type: none"> - Investing in agribusinesses that support smallholder farmers in becoming more resilient to climate change. - Supporting companies providing end-to-end support for farmers, from input to offtake. - Facilitating transportation and storage infrastructure for improved access to quality inputs and direct market linkages. - Promoting efficient utilization of natural resources and agroforestry to address soil erosion. - Providing access to mechanization and irrigation solutions to reduce dependency on rain. - Investing in processing infrastructure for value addition and reduction of post-harvest losses.
Agribusinesses	In Sub-Saharan African countries, agribusinesses, including logistics and retail, typically constitute around 20 percent of the gross domestic product (GDP), whereas agricultural production accounts for approximately 24 percent in low-income countries. However, only a fraction of this production is commercialized, highlighting the untapped potential. There's a pressing need to improve both production levels and the livelihoods of farmers while advancing sustainable agriculture practices. Additionally, many African companies face challenges accessing necessary capital and support to scale effectively and demonstrate commercially viable, replicable models. This difficulty is compounded by a lack of financing platforms dedicated to promoting the widespread deployment of crucial climate-resilient technology throughout the continent.	<ul style="list-style-type: none"> - ARAF II aims to support approximately 20 early-stage African agribusinesses through financial investment and technical assistance. These businesses are expected to be empowered to strengthen their business models, enabling them to provide climate adaptation products, services, and training to smallholder farmers. - Investing in agribusinesses that directly engage with farmers to improve production, yields, and incomes. - Supporting initiatives to develop policies for agricultural resilience and private sector initiatives.
Ecosystem	Creating sustainable and profitable business frameworks in both the agriculture and climate	At the ecosystem level, ARAF II aims to catalyze climate-resilient investments in Africa’s vulnerable

²³⁵ Nwokoro, C., Richards J., Blackwell M., Hemdev S. and Berlin, R. 2023. “Improving Innovation for Smallholder Farmers”. Syngenta Foundation for Sustainable Agriculture. <https://tinyurl.com/Improving-Innovation-for-SHF>

²³⁶ Altchenko, Y., and K. G. Villholth. “HESS - Mapping Irrigation Potential from Renewable Groundwater in Africa – a Quantitative Hydrological Approach.” *Hydrology and Earth System Sciences*, vol. 19, no. 2, pp. 1055–67, <https://doi.org/https://doi.org/10.5194/hess-19-1055-2015>. Accessed 12 Apr. 2024.

²³⁷ Fisher, M., Abate, T., Lunduka, R.W. *et al.* Drought tolerant maize for farmer adaptation to drought in sub-Saharan Africa: Determinants of adoption in eastern and southern Africa. *Climatic Change* **133**, 283–299 (2015). <https://doi.org/10.1007/s10584-015-1459-2>

²³⁸Climate Policy Initiative. “Examining the Climate Finance Gap for Small-Scale Agriculture.” *IFAD*, Nov. 2020, https://www.ifad.org/documents/38714170/42157470/climate-finance-gap_smallscale_agr.pdf/34b2e25b-7572-b31d-6d0c-d5ea5ea8f96f.

	<p>adaptation sectors faces hurdles stemming from inadequate collaboration, knowledge dissemination, and capital accessibility. This deficiency undermines the longevity of agricultural enterprises. Moreover, national markets within Africa's crucial agriculture sector demonstrate restricted adaptability, posing challenges to economic resilience.</p>	<p>agriculture sector by showcasing the commercial feasibility of agribusiness models. The Fund seeks to direct investments towards agribusinesses that pioneer innovative adaptation solutions in three core domains. These investments are anticipated to support smallholder farmers and promote climate resilience across the entire ecosystem while building insights that will build a blueprint for multiple players.</p>
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163. ARAF's investment objectives aim to increase farmers adaptation and climate resilience through increased income for farmers, higher yields, and productivity, leading to more food secure households, reduced post-harvest losses, improves access to inputs and training, improved quality of life for farmers, improved decision making through augmented awareness of climate information, heightened utilization of climate-resilient tools, and the development of agribusinesses equipped with enhanced climate awareness and resilience.

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)

Potential for scaling up and replication

164. ARAF II intends to replicate on a larger scale and across a wider investment region, the investment strategy and success of ARAF I, the world's first climate equity fund focused on climate adaptation. With partnership from GCF, ARAF I sought to demonstrate that agricultural value chains can be made climate resilient by investing in businesses that build climate resilience for smallholder farmers, while also supporting the overall growth of the agriculture sector. Over the last four years of investing, ARAF I has accomplished what it set out to do; driving growth in agribusinesses that are instilling adaptation practices in smallholder farmers, improving smallholder farmers' access to essential inputs, credit, infrastructure, information on climate-smart agriculture, and their productivity and income. Resultantly, these businesses have been able to attract additional private capital and have inspired the development of similar business models across the continent.
165. ARAF II seeks to spread this unique approach to transforming the agriculture value chain across additional countries in North, East, and West Africa, thereby attracting additional investment that foster adaptation in the agricultural sector in these markets. Inherently, ARAF II's investment strategy and criteria aims to prioritize companies with scalable and replicable business models. Scaling these ideas to new regions is crucial because we have observed that investments in climate adaptation, such as ARAF I, have not only fostered innovation but also led to the emergence of more pipeline companies and increased investment inflows. ARAF II expansion is expected to serve as a blueprint for other impact investors seeking to broaden their geographic reach, offering valuable insights, knowledge sharing, and a roadmap for funds looking to replicate successful investment models, as evidenced by adaptations like ACAP²³⁹ and similar models in other markets. ARAF II intends to target countries where smallholder farmers play a significant role in food security and GDP, and where a resilient and conducive business environment exists. The selection criteria for the countries include smallholder farmer population, climate change vulnerability, and a robust pipeline to support impactful initiatives. Given agriculture's central role in poverty reduction^{240,241} particularly in Africa where smallholder farmers comprise the backbone of food systems, investing in and supporting these businesses is vital for sustainable development and economic growth. The assessment model and tools used by the fund for evaluating climate resilience and farmer well-being can be adaptable and scalable across diverse geographical locations.
166. As noted earlier, ARAF's investment strategy centers around identifying companies with business models capable of scaling and replicating. Prior to investing, ARAF conducts a thorough evaluation of the companies' strategies, governance structures, climate resilience potential, business plans, financing, and distribution strategies to

²³⁹ Acumen Climate Action Pakistan Fund: Investing in companies building the future of climate resilient agrifood systems in Pakistan.

²⁴⁰ The potential of agriculture to improve a country's overall economy can never be overemphasized, it is estimated that 1% increase in crop yields would reduce the total number of people living in poverty by 0.48% in Asia and by 0.72% in Africa.

²⁴¹ Thirtle C, Piesse J, Lin L. The impact of research led productivity growth on poverty in Africa, Asia, and Latin America. World Development. 2003;31(12):1959-1975

assess their scalability and replicability across different markets. After investment, the fund provides support to businesses in their expansion into new markets and regions, the introduction of new product lines, and the implementation of fresh strategies. ARAF conducts surveys on farmer well-being and climate resilience to help companies understand farmer expectations and their own capacity to adapt to meet those needs. Additionally, ARAF utilizes its technical assistance facility to finance pilot projects for portfolio companies, enhancing their operational capabilities as part of the post-investment strategy. The current portfolio companies under ARAF's active management demonstrate significant potential for local market penetration, with several expanding into new geographical areas in both East and West Africa.

Potential for knowledge sharing and learning

167. Acumen has a 20-year track record of investing in emerging markets. During this time, Acumen has been a market leader in drawing insights and sharing them across the impact investing ecosystem. As a pioneer in impact investing, Acumen played a key role in shaping the sector's approach to measurement. Specifically, Acumen co-developed the Impact Reporting & Investing Standards (IRIS) and helped to found both the Aspen Network for Development Entrepreneurs (ANDE) and the Global Impact Investment Network (GIIN). 60 Decibels, one of the leading impact data advisors, was spun out of Acumen and has gone on to offer its impact measurement services to companies and investors alike.
168. ARAF II aims to build upon the successful investment strategy and impactful initiatives pioneered by ARAF I, with a commitment to furthering resilience in agriculture across a broader investment region. ARAF II seeks to replicate and scale these efforts to empower smallholder farmers in adapting to climate change. Moreover, ARAF II intends to leverage the Technical Assistance facility, which has demonstrated its efficacy in supporting portfolio companies and enhancing overall company performance and efficiency. By continuing to invest in early-stage platform businesses that facilitate access to critical information, affordable financing, modern inputs, and formal markets for smallholder farmers, ARAF II aims to drive scalability and replicability in these agriculture business models. The tangible outcomes observed within ARAF I's portfolio, including increased productivity, adoption of climate-smart practices, and improved financial literacy among farmers, serve as compelling evidence of the efficacy of this investment approach. ARAF II is committed to building upon these successes, driving meaningful change in the lives of farmers and contributing to sustainable agricultural development. The focus remains on companies demonstrating scalability and replicability in their business models, thereby maximizing impact across diverse agricultural contexts.
169. ARAF II aims to continue to support both regional climate and agriculture-related initiatives at both public and private sector levels. Our team members seek to contribute insights from our investment experience and research to broader discussions and knowledge sharing on agriculture, smallholder farmers, impact investment, measurement, climate change, and adaptation. We intend to achieve knowledge sharing through active participation in conferences, panels, and forums, including events such as the Conference of the Parties (COP) and the African Food Systems Forum (AGRF). As active members and contributors within regional Venture Capital Associations, including the East African Venture Capital Association (EAVCA), ARAF II seeks to engage with, impart knowledge to, and learn from regional and global advisors on best practices, while also seeking opportunities for collaboration with organizations to share insights. Furthermore, through ARAF II, the team aims to disseminate learnings via webinars, publications, and annual impact reports to stakeholders. Furthermore, ARAF has and seeks to continue to be active participants in public conferences, actively sharing our expertise with the broader community.
170. We aim to synthesize insights from deploying ARAF II to inform monitoring across the portfolio and share learnings with companies, accelerators, early-stage ventures, entrepreneurs, customers, and investors, thereby contributing to stronger impact outcomes in each focus country. To amplify our impact, we plan to develop deep linkages across the VC ecosystem, fostering shared knowledge, insights, and portfolio connections to support the growth of scalable agri-business models and sector knowledge. ARAF II expects to engage various stakeholders, both public and private, to develop and publish insights that build institutional capacity and reduce information asymmetries limiting private investments in agribusinesses.

Contribution to the creation of an enabling environment

171. **Capital Investment:** Acumen is requesting that GCF invest equity capital into a 10-year Fund (plus up to two 1-year extensions, i.e., 12 years maximum). This vehicle, and GCF's anchoring investment, aims to enable Acumen to attract risk averse capital from like-minded investors who are interested in the same goals but have a lower risk appetite. The proposed fund structure shall be tiered and includes a Junior and Senior equity layer. The participation of GCF and other catalytic capital providers in the Junior layer is expected to further de-risk ARAF II and attract investments from private institutional capital providers who are expected to benefit from downside protection and enhancement of returns. Despite agriculture's significant contribution to employment and GDP across the continent, it remains a challenging and less remunerative sector, resulting in limited capital allocation²⁴². According to the Global Impact Investing Network (GIIN)²⁴³, while 61% of impact investors allocate some capital to agriculture, merely 7% of assets under management are directed toward the sector. Similarly, climate finance for agrifood systems is alarmingly low, with only 4% of total global climate finance being allocated to this crucial sector in the past year. In addition, statistics reveal that in 2019/20, agrifood systems received a mere 4.3% of total global climate finance, amounting to an annual average of USD 28.5 billion²⁴⁴. Furthermore, only one in five dollars of total venture capital investments in agrifood tech targeted companies focusing on climate change solutions, with an annual average VC investment of USD 4.8 billion²⁴⁵ above. To address the pressing challenges facing agrifood systems and climate resilience, there is an urgent need for increased investment. Climate finance for agrifood systems must escalate significantly, at least sevenfold from current levels, to meet the conservative estimated needs for the climate transition, which amount to hundreds of billions of dollars annually according to the Food and Land Use Coalition²⁴⁶ (FOLU, 2019). Boosting agricultural investment represents the low-hanging fruit in transforming food systems, strengthening climate resilience, and improving the livelihoods of millions. By directing resources towards this critical sector, ARAF II aims to play a pivotal role in unlocking its potential for sustainable development and positive impact. The first-loss capital provided by the Green Climate Fund is anticipated to mitigate the investment risk associated with ARAF II, making it more attractive to other like-minded impact investors who may struggle with the risk profile of investing in African agriculture, a region and sector often perceived as carrying very high risks. Building upon the success of ARAF I in leveraging GCF financing for this purpose, it is anticipated that ARAF I's proven track record will further enhance ARAF II's appeal to such investors.
172. **Post-Investment Support:** ARAF II seeks to continue to strategically deploy capital to stimulate markets, fostering sustainable involvement from both public and private investors. The fund intends to specialize in early-stage investments, providing support to portfolio companies post-investment by aiding in the establishment of governance structures, enhancing management team accountability, and offering strategic guidance to facilitate growth and expansion. This assistance may enhance the appeal of portfolio companies to potential private sector investors, while also paving the way for future partnerships and collaborations with the public sector and large corporates. ARAF II seeks to actively encourage collaboration among its portfolio companies, promoting mutual learning and problem-solving.
173. **Technical Assistance:** ARAF II also aims to raise a US\$12MM grant-funded Technical Assistance Facility (TAF) to further support the profitable growth of portfolio companies. ARAF II plans to utilize the TA facility to accelerate impact within its portfolio, providing access to funding for valuable, non-core initiatives throughout the target company lifecycle. The type of support is expected to vary depending on specific portfolio company needs, such as training farmers on product usage, supporting in measuring impact, and facilitating access to investors. The US\$6MM in grant money requested from the GCF for ARAF II's TAF is expected to enable ARAF to continue training smallholder farmers on good agricultural practices and adopting farming techniques to enhance their resilience. Additionally, the grant capital provided by the TAF supports projects and initiatives that companies would otherwise be unable to pursue due to limited resources.

²⁴² Coco Lim, Dan Waldron, and Chris Wayne. "Planting the Seeds of Impact: The Investment Potential of African Agriculture in Ten Charts." Acumen, 28 Feb. 2024, <https://acumen.org/blog/investing-in-african-agriculture-in-ten-charts/>. Accessed 4 Apr. 2024.

²⁴³ Hand, D., Sunderji, S., Pardo, N. (2023) 2023 GIINsight: Impact Investing Allocations, Activity & Performance. The Global Impact Investing Network (GIIN). New York. <https://theiiin.org/assets/documents/pub/2023-GIINsight/2023%20GIINsight%20%E2%80%93%20Impact%20Investing%20Allocations,%20Activity%20&%20Performance.pdf>

²⁴⁴ CPI [Daniela Chiriac, Harsha Vishnumolakala, Paul Rosane], 2023. Landscape of Climate Finance for Agrifood Systems. Climate Policy Initiative, <https://climateshotinvestor.org/publications/landscape-of-climate-finance-for-agrifood-systems>. Accessed 4 Apr. 2024.

²⁴⁵ CPI [Daniela Chiriac, Harsha Vishnumolakala, Paul Rosane], 2023. Landscape of Climate Finance for Agrifood Systems. Climate Policy Initiative, <https://climateshotinvestor.org/publications/landscape-of-climate-finance-for-agrifood-systems>. Accessed 4 Apr. 2024.

²⁴⁶ Food and Land Use Coalition (FOLU), 2019. Growing Better: Ten Critical Transitions to Transform Food and Land Use. Available at: <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>

Contribution to the regulatory framework and policies

174. As ARAF II progresses with its investments, it expects to remain committed to continuous learning and knowledge-sharing. Insights learned from these experiences are expected to be disseminated to National Designated Authorities (NDAs) and other relevant stakeholders. ARAF II aims for these shared lessons to enrich policy dialogues, fostering increased investment and promoting climate-conscious planning and development. Regular touchpoints, occurring quarterly or semi-annually, are established with NDAs in the countries of investment, and ARAF actively participates in meetings and convenings organized by these authorities.

Overall contribution to climate-resilient development pathways consistent with relevant national climate change adaptation strategies and plans

175. ARAF II's investments are geared towards addressing both the commercial viability of agricultural ventures and their ability to tackle challenges within the value chain, thereby enhancing the resilience of smallholder farmers in target countries. The investment portfolio focuses on key issues such as rainfed farming, low livestock productivity, crop yield limitations, post-harvest losses, inadequate access to quality inputs, financing, and markets. These endeavors are in alignment with the national adaptation plans of the respective countries. ARAF II's approach to targeting sub-sectors within agriculture and selecting businesses to support is guided by the National Adaptation Plan (NAP) of each country. During the initial evaluation phase preceding investment activities in any country, the NAP serves as a foundational document that ARAF II reviews to understand the country's adaptation focus, existing resources, and plans, ensuring alignment with ARAF II's investment philosophy. 2 examples include:

- Egypt, guided by its National Climate Change Strategy²⁴⁷, endeavors to enhance climate change mitigation and resilience by implementing various measures. These include advocating for water conservation initiatives, embracing hybrid crops that exhibit high productivity and resilience to adverse weather conditions, refining crop management systems, and integrating biodiversity considerations into assessments of impacts, vulnerability, and climate change adaptation. Similarly, the Kenyan government, as outlined in its National Adaptation Plan (NAP)²⁴⁸, has underscored several objectives pertaining to agriculture. These objectives encompass enhancing understanding of climate change impacts on agriculture, scaling up adaptation measures such as soil fertility management and index-based insurance, providing capacity building support to private sector actors within the agricultural value chain, and promoting the adoption of climate-smart agriculture practices across Kenya.²⁴⁹ These priorities strongly resonate with ARAF's mission. Firstly, ARAF's investment initiatives, encompassing capital provision, operational support, and strategic assistance, contribute significantly to enhancing the capacity of private sector actors within the agricultural value chain. Through targeted investments, ARAF facilitates the adoption of sustainable practices and innovative solutions that align with the goals outlined in both these countries' NAPs. This synergy between ARAF's objectives and the priorities outlined by these governments underscores the potential for collaborative efforts to drive positive change and resilience in the agricultural sector.

D.3. Sustainable development (max. 500 words, approximately 1 page)

176. ARAF II seeks to continue to focus on smallholder farmers in developing economies in Africa, many of whom are poor and extremely vulnerable to climate shocks. ARAF II aims to invest in companies that provide a combined economic, social, and environmental benefit to farmers. As with ARAF I, the achievement of these benefits over the lifetime of our investment in any specific company may be tracked periodically through annual farmer surveys. ARAF II intends to leverage ARIS, a pre-investment screening tool tailored to establish a uniform and comprehensive method for identifying projects that can enhance communities' resilience to climate change. Developed with the GCF results measurement framework, particularly focusing on adaptation impact indicators,

²⁴⁷ "Egypt National Climate Change Strategy (NCCS) 2050." *Climate Change Laws of the World*, https://climate-laws.org/documents/egypt-national-climate-change-strategy-nccs-2050_8bfc. Accessed 4 Apr. 2024.

²⁴⁸ "Kenya National Climate Change Action Plan (NCCAP) 2018 - 2022." *UNEP Law and Environment Assistance Platform*, <https://leap.unep.org/en/countries/ke/national-legislation/national-climate-change-action-plan-nccap-2018-2022>. Accessed 4 Apr. 2024.

²⁴⁹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

ARIS serves as a foundation for project evaluation. Moreover, the fund is committed to ensuring Environmental, Social, and Governance (ESG) compliance through both pre-investment assessment and post-investment monitoring and support. This includes evaluating portfolio companies' adherence to ESG requirements outlined in the Environmental and Social Management System and by aligning with standards such as the IFC performance standards, as well as internationally accepted benchmarks like those set by the International Labor Organization (ILO) and the Occupational Safety and Health Administration (OSHA).

177. **Environmental co-benefits:** ARAF II aims to prioritize portfolio companies dedicated to promoting climate-smart agricultural practices aimed at conserving natural resources and preventing environmental degradation. Through conducting ESG due diligence on these companies, ARAF seeks to assist them in formulating ESG action plans (ESAP) that prioritize environmental conservation. Commitment to these ESAPs is anticipated to involve adhering to reporting requirements, associated costs, and acknowledging the implications of any breaches concerning ESG criteria. Furthermore, ARAF shall mandate all portfolio companies to implement water management practices outlined in specific ESAP requirements. These practices may involve disseminating knowledge and encouraging the adoption of sustainable farming and natural resource management techniques among farmers. These techniques may include intercropping, crop rotation, water conservation methods, utilization of organic materials, land conversion strategies, reduced or no tillage approaches, and soil testing protocols. This concerted effort is expected to not only promote water conservation but also enhance soil management practices and facilitate carbon sequestration. Regenerative agriculture, with its focus on soil health, resource efficiency, biodiversity, carbon sequestration and prosperity, offers a transformative and sustainable farming approach that benefits both the environment and farmers alike. It enhances long-term farmer livelihood by reducing costs, improving crop yield and quality, and providing resilience against market volatility and extreme weather events²⁵⁰.
178. **Economic co-benefits:** ARAF II intends to invest in companies aimed at enhancing farmers' productivity and access to premium markets, ultimately leading to increased incomes for farming households. These income enhancements are expected to significantly improve the well-being of farmer households. In the short term, regular and timely cash injections are expected to stabilize incomes, providing essential disposable cash for daily expenses. Over the medium term, the additional income is anticipated to accumulate, potentially compounding, allowing farmers to reinvest in their farms, build assets, save money, and alleviate poverty for both men and women. In the long term, it is expected that these bolstered livelihoods will become more solidified, resulting in sustained improvements in household income. ARAF's emphasis on low-income populations in developing countries has prompted investments in initiatives aimed at enhancing the livelihoods and well-being of farmers. Surveys conducted by ARAF and its portfolio companies contribute to a comprehensive understanding of the economic, social, and environmental benefits, particularly when analyzed through a gender-sensitive lens. These economic benefits include increased production/yield, income, and overall quality of life at the company level. Additionally, ARAF II plans to invest in innovative companies that promote inclusive and sustainable economic growth, through full and productive employment for all, enhancing job markets as companies expand and creating job opportunities. The statistics on increases in farmer productivity, as evidenced by surveys conducted in ARAF I, demonstrate a clear connection to income increases. Working with companies within the ARAF portfolio has enabled farmers to significantly improve their farming practices, with 87% reporting such enhancements. This improvement in productivity has translated into tangible economic benefits, with over 80% of surveyed farmers reporting increases in both yields and incomes. Additionally, collaborating with ARAF portfolio companies has led to an improved quality of life for farmers, as reported by 85% of respondents. This increase in productivity and income is closely linked to climate resilience among farmers²⁵¹. A resilient farmer possesses the capacity to anticipate threats such as severe droughts through information services and training. By adapting through strategies such as utilizing drought-resistant seeds, irrigation, rainfall-indexed insurance, and diversified/improved income, farmers can mitigate the impacts of climate variability. Consequently, when faced with droughts, these adaptive strategies enable farmers to maintain a sufficient level of income and bounce back using a combination of insurance payouts, savings, and input financing for the next season.²⁵²In essence, the ability to anticipate, adapt, and absorb challenges reflects the resilience of farmers, which is strengthened through enhanced productivity and income derived from collaborations with companies supported by ARAF.

²⁵⁰ Holsether, Svein Tore, and Grant F. Reid. "5 Benefits of Regenerative Agriculture – and 5 Ways to Scale It." *World Economic Forum*, 11 Jan. 2023, <https://www.weforum.org/agenda/2023/01/5-ways-to-scale-regenerative-agriculture-davos23/>. Accessed 12 Apr. 2024.

²⁵¹ Lean Data survey

²⁵² Tanner, Aditya Bahadur, Katie Peters, Emily Wilkinson, Florence Pichon, Kirsty Gray and Thomas. *The 3As: Tracking Resilience across BRACED* - <https://cdn.odi.org/media/documents/9812.pdf>, *Working and Discussion Papers*. Accessed 12 Apr. 2024.

179. **Social co-benefits including health co-benefit– Knowledge and skills development:** Families experience diverse improvements in their quality of life, encompassing both monetary gains and non-monetary benefits, facilitated by selling to aggregators or engaging with agricultural platforms. Notably, significant time savings in processing, transportation, and accessing information are observed, an aspect often undervalued but deemed crucial for enhanced convenience. For instance, in ARAF I, Tomato Jos's farmers appreciate the convenience provided by the company, including the delivery of inputs, training, and agronomy support to its out-growers, while FarmWorks' farmers value the simplicity of produce collection, fair pricing, and educational opportunities provided through the FarmWorks Institute. Likewise, agribusinesses provide farmers with essential support such as agronomical guidance, opportunities for organic certification, and primary processing skills to ensure the quantity and quality of raw materials. This support equips farmers with new skills and knowledge in areas like crop diversification, irrigation, soil testing, fertilizer application, pesticide alternatives, and advanced crop management techniques. ARAF II goes beyond typical assistance by dedicating a portion of its technical assistance facility to climate adaptation training for farmers. These grants empower ARAF's portfolio companies to pilot innovative farmer training programs, address gender disparities in agriculture, and promote the adoption of new practices, thereby enhancing farmer resilience to climate change and its impacts. Furthermore, farmers are anticipated to experience improved health as a co-benefit through access to quality inputs and various products and services. Expected improvements extend to both men and women, encompassing areas such as health and safety, access to education, and enhanced regulation as discussed. A deeper, more qualitative, analysis of the impact of ARAF I portfolio companies, obtained through surveys of farmers engaging with ARAF portfolio companies²⁵³, indicates that 80% of the farmers surveyed reported increases in farm productivity, 80% reported income increases and 85% reported improved quality of life. Additionally, the interventions undertaken by ARAF portfolio companies have strengthened the climate resilience of farmers as demonstrated by the 45% of the farmers in our impact surveys were assessed as resilient (up from a baseline of 38%). Implying an increased ability to cope with the growing challenges posed by climate hazards, because of having access to quality inputs, financial products (credit and insurance), agronomical support, infrastructure (water and mechanization), and premium markets. The interaction of these elements within a bundled product for farmers, work in concert to improve farmer productivity, incomes, savings, (re)-investments into their land and diversification of their income.
180. **Gender-sensitive development benefit:** ARAF II's portfolio companies are expected to undergo a thorough evaluation process to assess their potential for promoting gender-focused development prior to investment. Upon investment, they are expected to be required to formulate a Gender Action Plan. Subsequently, they expect to receive gender-disaggregated impact data to pilot new initiatives addressing gender disparities. ARAF acknowledges the importance of understanding and addressing differences in farming experiences between male and female farmers. This inequality can be seen in rural settings, women also rely heavily on local natural resources and are responsible for household water supply, energy provision, and food security, which further accentuates their vulnerability. Marginalized from decision-making and access to environmental resources, women lack the tools to effectively address climate change²⁵⁴. Extreme weather events worsen the burden on women, requiring them to intensify efforts to sustain their households, leaving little room for skill development or education. Mobility constraints, societal norms, and caregiving duties hinder women's ability to migrate or seek refuge during disasters, exacerbating their hardship²⁵⁵. In conflict-ridden contexts, women endure exacerbated gender inequalities, facing increased domestic violence, trafficking, and abuse, making climate change an additional stressor that amplifies their vulnerability²⁵⁶. FAO research underscores the pivotal role of gender equality and women's empowerment in transitioning towards sustainable, productive, and resilient agrifood systems. Closing gender gaps in farm productivity and wage disparities in agrifood-system employment could yield significant global benefits. By conservatively estimating the impact, FAO suggests that achieving gender equality in agriculture and agrifood systems could boost global gross domestic product by at least 1 percent (equivalent to nearly USD 1 trillion) and reduce global food insecurity by at least 2 percentage points, thereby lifting 45 million people out of food insecurity.²⁵⁷ To achieve this, ARAF aims to conduct farmer surveys to analyze

²⁵³ Lean Data survey conducted by 60 decibels

²⁵⁴ "Empowering Female Farmers to Feed the World." *Culture*, 13 Mar. 2019, <https://www.nationalgeographic.com/culture/article/partner-content-empowering-female-farmers>. Accessed 3 Apr. 2024.

²⁵⁵ Nations, United. "Women...In the Shadow of Climate Change." *United Nations*, 2009, <https://www.un.org/en/chronicle/article/womenin-shadow-climate-change>. Accessed 3 Apr. 2024.

²⁵⁶ [Women are key for the future of climate action in Africa | Climate Promise \(undp.org\)](#)

²⁵⁷ FAO. 2023. *The status of women in agrifood systems – Overview*. Rome. [The status of women in agrifood systems | Gender | Food and Agriculture Organization of the United Nations \(fao.org\)](#)

data and identify discrepancies. When such differences are identified, ARAF encourages its portfolio companies to initiate pilot projects or targeted training initiatives to bridge the gender gap. In addition to the focus on agricultural impact, ARAF also tracks gender diversity within its portfolio companies on a quarterly basis, covering both managerial and non-managerial positions.

181. The ARAF II team developed a gender assessment in accordance with industry best practices, guidance and support from gender experts, community input, and following the GCF Gender Policy. The gender assessment informed the Project's Gender Action Plan and Gender Lens Investing Strategy. These documents can be found in Annex 8.

D.4. Needs of recipient (max. 500 words, approximately 1 page)

182. Africa's population was estimated at 1.4 billion people in 2022 and is projected to reach 2.5 billion by 2050, with an expected Compound Annual Growth Rate (CAGR) of 2.1% annually²⁵⁸. Agriculture currently stands as Africa's largest economic sector, contributing 17.3% to Sub-Saharan Africa's GDP in 2022 and employing 40% of the workforce²⁵⁹. Rainfed agriculture provides 95% of the continent's food, making anticipated changes to rainfall patterns critical for productivity. The continent's increasingly unpredictable weather systems burden food security and rural livelihoods. In Africa's climate finance landscape, 49% (USD 14.6 billion) is allocated to mitigation efforts, with an additional 39% (USD 11.4 billion) earmarked for adaptation, and 12% (USD 3.5 billion) designated for dual benefits. This distribution contrasts with other global regions, where adaptation typically receives only 7% to 16% of total climate financing. Although these funding streams acknowledge Africa's vulnerability to climate change, substantial increases—six and 13-fold, respectively—are still necessary²⁶⁰. Persistent funding gaps underscore the need for increased private investment with a higher risk appetite to support innovative companies dedicated to Africa's inclusive growth. ARAF II targets 6 countries to build such innovative companies, leveraging farmer insights and funding to support smallholder farmers. It promotes the use of climate adaptive inputs, effective crop management, drip irrigation, intercropping, financing, and insurance to mitigate the impact of climate change on vulnerable populations and introduce effective long-term climate adaptation strategies. ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries.²⁶¹
183. Countries like Kenya, Uganda, Ghana, Nigeria, and Tanzania have high poverty rates and significant portions of their populations living below the poverty line.²⁶² These countries also face challenges related to gender inequality, with women playing a crucial role in agricultural production but often facing barriers to accessing resources and support. Furthermore, the absence of alternative sources of financing, such as limited access to formal financial institutions, exacerbates the vulnerability of smallholder farmers. ARAF II aims to fill this gap by providing financial support and technical assistance to agribusinesses, thereby enabling them to scale up and demonstrate commercially viable models.
184. Additionally, many of the target countries lack sufficient institutional capacity to address the challenges posed by climate change and agricultural sustainability. ARAF II aims to work to strengthen institutions and build implementation capacity by collaborating with local partners and supporting initiatives that enhance governance and policy frameworks.

²⁵⁸ Galal, Saifaddin. "Africa: Total Population Forecast 2020-2050." Statista, <https://www.statista.com/statistics/1224205/forecast-of-the-total-population-of-africa/>. Accessed 4 Mar. 2024.

²⁵⁹ "World Bank Open Data." World Bank Open Data, <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=ZG>. Accessed 4 Mar. 2024.

²⁶⁰ Climate Policy Initiative, (September 2022), [Climate Policy Initiative 2022 Report](#)

²⁶¹ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

²⁶² ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

Region	Needs assessment	Alignment
North Africa (Morocco) ²⁶³	<p>Morocco's National Strategic Adaptation Plan for climate change by 2030 emphasizes key measures for agricultural adaptation, including:</p> <ul style="list-style-type: none"> ▪ Supporting farmers in implementing specific agronomic practices to maintain soil quality and quantity. ▪ Promoting practices that facilitate water infiltration, reduce flooding, and rehabilitate degraded soils. ▪ Protecting water reserves through strict control of chemical use and water conservation programs. ▪ Leveraging information and communication technologies for more sustainable agriculture. ▪ Digitizing smart irrigation systems to conserve water and energy. ▪ Facilitating access to financing for small farmers and cooperatives to reduce food losses. ▪ Improving storage techniques and providing training for post-harvest treatment. ▪ Strengthening agricultural insurance programs to mitigate risks. ▪ Preserving agricultural land and urban forests to mitigate urban heat and promote biodiversity. ▪ Encouraging urban agriculture and developing agri-food chains to enhance resilience and social cohesion in cities. 	<p>ARAF II's activities are aligned with the country's climate strategies as outlined above. By investing in aggregator, ag-finance, and ag-tech platforms, the Fund is expected to enable the following resilience offerings to smallholder farmers:</p> <ul style="list-style-type: none"> ▪ Access to markets, storage facilities, and information, thereby reducing waste and financial losses and enabling farmers to align farm operations with the changing climate. ▪ Access to credit, affordable credit, and savings facilities, enabling farmers to invest in land and farming activities and diversify income. ▪ Access to assets such as irrigation equipment, enabling water conservation and resilience. ▪ Access to improved and resilient inputs, mitigating against reduced yields caused by climate change. ▪ Access to education, extension services, awareness raising, and capacity building on climate-adaptive behaviors, promoting appropriate land use decisions and income diversification. ▪ Access to insurance products for compensation for losses incurred because of climate change. ▪ Improved seed varieties, organic fertilizers, soil management practices, disease and pest control mechanisms, livestock breeds and management, animal health services, climate-resilient animal feeds, and post-harvest management techniques to minimize losses.
East Africa (Kenya) ^{264,265}	<p>During the NCCAP process, stakeholders emphasized prioritizing adaptation actions across various sectors. Specifically, the NCCAP focused on prioritizing actions within the agriculture, livestock, water, environment, infrastructure, sustainable livelihoods, energy infrastructure, and tourism sectors. Actions in agriculture to enhance the resilience of the agricultural value chain include:</p> <ul style="list-style-type: none"> ▪ Promote indigenous knowledge on crops. ▪ Increase awareness on climate change impacts on the agriculture value chain. 	<ul style="list-style-type: none"> ▪ Drip irrigation and other water management tools. ▪ Extreme weather early warning systems and meteorological information for short-term weather and long-term climate forecasting. ▪ Promotion and dissemination of indigenous knowledge.

²⁶³ Royaume du Maroc, Ministère de la Transition Énergétique et du Développement Durable, Département du Développement Durable. "Plan Nationale Stratégique D'adaptation (PSNA 2030)." (2022).

https://unfccc.int/sites/default/files/resource/PNSA_Morocco_Fr.pdf?download

²⁶⁴ Kenya National Adaptation Plan: 2015-2030, Government of Kenya, July 2016

²⁶⁵ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

	<ul style="list-style-type: none"> ▪ Conduct climate risk and vulnerability assessments of the agriculture value chain. ▪ Coordinate and mainstream climate change adaptation into agricultural extension. ▪ Promote new food habits ▪ Establish, maintain and promote the uptake of climate change related information on agriculture. ▪ Develop and up-scale specific adaptation actions - promotion and bulking of drought tolerant traditional high value crops; water harvesting for crop production; index-based weather insurance; conservation agriculture; agro-forestry; and Integrated soil fertility management. ▪ Develop and apply Performance Benefit Measurement methodologies for adaptation and development for the sector ▪ Support adaptation of private sector agricultural value chain actors through capacity building efforts. Promote and implement climate smart agriculture practices in Kenya. 	
<p>West Africa (Nigeria)</p>	<p>Nigeria's national adaptation strategy for agriculture focuses on:</p> <ul style="list-style-type: none"> ▪ increasing access to drought-resistant crops and livestock feeds. ▪ increased investment in flood mitigation infrastructure; adopting better soil management practices. ▪ providing early warning and meteorological forecasts and related information; and implementing strategies for improved resource management, including the use of irrigation systems that use low amounts of water and the planting of native vegetation cover. 	

D.5. Country ownership (max. 500 words, approximately 1 page)

185. ARAF II intends to capitalize on its local presence and expertise, operating with a localized approach. The team boasts a collective 70 years of experience in the region, nurturing essential local knowledge and networks. With a presence in key investment hubs across East, North, and West Africa, such as Nairobi, Cairo, and Lagos, the team is well-positioned to navigate the region's complexities.
186. ARAF's investment strategy, exemplified by ARAF I, is deeply rooted in the National Adaptation Plans (NAPs) of respective countries. These plans serve as foundational documents guiding ARAF's evaluation process, ensuring alignment with the country's adaptation priorities. Continuous engagement with National Designated Authorities (NDAs) is pivotal in aligning ARAF's investment strategy with the country's adaptation priorities. This ongoing communication throughout the fund's life cycle enables updates on investment activities and mutual learning regarding evolving climate adaptation strategies. Moving forward, ARAF II intends to uphold this strategy by engaging NDAs during the fund formulation phase, ensuring alignment with National Adaptation Plans (NAPs).

Active investor support is expected to persist, with a focus on providing operational and strategic guidance. Additionally, ARAF II remains committed to conducting consumer voice surveys and sharing insights with the broader impact investing community.

187. Expanding its geographical scope, ARAF II has begun engaging with NDAs to secure necessary approvals. Collaborative efforts with consultants, NGOs, and local stakeholders aim to facilitate NDA engagement and the acquisition of necessary approvals, building upon established relationships from ARAF I's endeavors. The team has been in active discussions with local investors, industry associations, early-stage accelerators, and entrepreneurs across the target markets and intends to continue this throughout the life of this Fund.
188. ARAF II seeks country alignment and has used country level climate goals to ensure the viability of the ARAF II investing strategy in the local ecosystem. For example:
- In Uganda, the country has developed NDC Adaptation plans that include expanding small water infrastructure, building a climate resilient fisheries sector, expanding diversification of crops and livestock, supporting farmers with extension services, providing climate information and early warning systems to promote climate smart agriculture²⁶⁶.
 - According to the AfDB National Climate Change Profile for Cote d'Ivoire, the country's adaptation priorities in agriculture revolve around addressing the vulnerability of rural households dependent on agriculture and livestock for their livelihood by enhancing production through the development of efficient mechanization, improvement of packaging, harvesting, and conservation infrastructure, and by improving cropping schedules, production techniques, and irrigation efficiency to reduce negative impacts on natural resources²⁶⁷.
 - Nigeria's national adaptation strategy²⁶⁸ for agriculture focuses on increasing access to drought-resistant crops and livestock feeds; adopting better soil management practices; providing early warning and meteorological forecasts and related information; and implementing strategies for improved resource management, including the use of irrigation systems that use low amounts of water and the planting of native vegetation cover. ARAF II's strategy is to invest in businesses that provide farmers with access to agronomical support, including guidance on smart and/or regenerative agricultural practices.
189. Acumen, as the Accredited Entity, is committed to local country operations and expertise. Acumen has local offices in each of the regions where it invests (East Africa, West Africa, India, Pakistan, and Latin America), staffed by local employees that understand consumer needs and the local cultural context, and bring extensive local networks. Acumen's teams across the world work with relevant local government, NGO, and private sector partners to execute on its investment and impact goals and ensure alignment with local policies. Together with the AE, the ARAF II team has committed to have a structured engagement with the NDAs in their countries of focus across the following different channels: (i) the Fund intends to provide quarterly reports to the NDAs with comprehensive information on the Fund progress and activities within the countries; (2) ARAF aims to hold periodic 1-on-1 calls with the NDAs to present the Fund's progress and insights, as well as get to know the latest government priorities in each country; (3) and, the AE and ARAF seek to hold an annual learning event to bring all NDA representatives together as well as CSO representatives and gender experts and ministries for shared learning and cross-pollination of ideas, either around the GCF annual meetings in South Korea or other locations.
190. Additionally, Acumen and ARAF are developing ARAF II with stakeholder engagement as a vital mechanism for enhancing project objectives and initiatives. Civil society organizations, non-governmental organizations, government entities, prospective companies in our pipeline, as well as local farmers and other actors in the agricultural sector, all contribute significantly to shaping our understanding of local contexts, identifying investment opportunities, and pinpointing existing market gaps.
191. ARAF II is committed to further developing and reinforcing our partnerships with these stakeholders as we advance with project implementation. Their awareness of our initiatives, monitoring of outcomes, and provision of feedback serve as crucial accountability measures for our team. While we utilize various channels of

²⁶⁶ [Uganda National Adaptation Plan](#)

²⁶⁷ Dr. ASSAMOI Abé Yapo Eric-Michel. "National Adaptation Plans in Focus: Lessons from Côte d'Ivoire." UNDP, Sept. 2020, https://www.adaptation-undp.org/sites/default/files/resources/nap-gsp_cotedivoire_countrybrief.pdf.

²⁶⁸ Nigeria's First Nationally Determined Contribution – 2021 Update, <https://unfccc.int/documents/497790>

communication to engage with stakeholders, it's noteworthy that our grievance mechanism and stakeholder engagement meetings stand out as essential tools for connecting with and learning from these diverse stakeholder groups.

D.6. Efficiency and effectiveness (max` . 500 words, approximately 1 page)

192. ARAF II is conceptualized as a blended finance fund that pools capital from various types of investors, who have different risk tolerance, return expectations, risk mitigation strategies, and the unified goal of driving climate adaptation and resilience of smallholder farmers by investing in ecosystem agribusinesses. As provided by CPI²⁶⁹, development organizations are advised to utilize blended financing structures as a way of increasing co-financing from private capital sources and encouraging participation from a broader base of market participants. ARAF II expects that this Fund will be supported by a range of investors including DFIs, Family Offices, Impact Investors, and HNWI's.
193. ARAF II has therefore been structured to incorporate two tiers of equity – a junior equity and a senior equity tier. Acumen is proposing that the GCF invest US\$30MM in equity into ARAF II in the junior equity tier as catalytic first loss capital, which ARAF will seek to leverage by 3x to raise a US\$120MM fund. This expectation is based on ARAF I's experience, where GCF's investment was leveraged by 1.5x to attract additional investors, who are interested in climate adaptation, and who require some downside protection to induce equity exposure to the often volatile and risky agri-sector. Based on ARAF I's performance and track record, we believe that ARAF II, should be able to leverage the GCF's investment by 3x. Acumen is also proposing that GCF provide grant capital of US\$6MM for ARAF's TAF, which ARAF will seek to leverage by 2x towards raising at US\$12MM Technical Assistance Facility.
194. ARAF I has demonstrated the commercial viability of the agriculture sector by investing in, developing and scaling sustainable agribusinesses that make agricultural value chains more climate resilient. As at today, ARAF I portfolio companies have raised 5.3x ARAF's investment amount, raising an additional US\$141.1MM cumulatively. Through an investment in ARAF II, GCF will de-risk the investment opportunity for other LPs at the fund level, as well as attract additional private sector capital into the sector at the portfolio level, thereby increasing the scale and impact of climate resilient agribusinesses operating locally within countries.
195. ARAF II expects to design and deploy investment instruments into viable business opportunities in a risk-return adjusted manner towards generating positive returns for investors. ARAF has acquired the capacity to identify, invest in and manage in innovative business models driving impact and livelihood improvement for smallholder farmers. ARAF has also developed appropriate capacity, processes and internal controls to monitor its investments and report to investors.
196. ARAF's investment approach is focused on companies that have a wide network of farmers, whether through out-grower schemes, farmer cooperatives, or assembling their own network of farmers, this amplifies the fund's ability to reach farmers. ARAF II seeks to directly impact 4MM smallholder farmers and indirectly impact 20MM lives by helping farmers to prepare for, and recover from, climate shocks through practices, products and services that improve their yield and income; the quality of their soil; provide consistent access to water, and access to insurance, amongst others. As well as other co-benefits including increased disposable income for savings and other priorities; time-savings and convenience; improved knowledge and skills. We believe that ARAF II represents a cost-effective opportunity to improve the livelihoods and prospects for smallholder farmers and their families, who represent some of the most vulnerable demographics in our population.

²⁶⁹ 19 Sept. 2022, fsdafrika.org/wp-content/uploads/2022/09/fsdafrika.org/wp-content/uploads/2022/09/1.-Landscape-of-Climate-Finance-in-Africa-I-Full-report.pdf. Accessed 17 Apr. 2024.

E. LOGICAL FRAMEWORK

This section refers to the project/programme’s logical framework in accordance with the GCF’s Integrated Results Management Framework to which the project/programme contributes as a whole, including in respect of any co-financing.

E.1. Project/Programme Focus

Please indicate whether this proposal is for a mitigation or adaptation project/programme. For cross-cutting proposals, select both.

Reduced emissions (mitigation)
 Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential (max 600 words, approximately 1-2 pages)

This section of the logical framework is meant to help a project/programme monitor and assess how it contributes to the paradigm shift described in section D.2 above by applying three assessment dimensions - scale, replicability, and sustainability.

Accordingly, for each assessment dimension (see the definition per assessment in the accompanying guidance note), describe the current state (baseline) and the potential scenario (target) and rate the current state (baseline) by using the three-point-scale rating (low, medium, and high) provided in the guidance note. Also describe how the project/programme will contribute to that shift/ transformation under respective assessment dimensions (scale, replicability and sustainability). In doing so, please refer to section B.2(a) (theory of change).

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	Agriculture currently stands as Africa's largest economic sector, contributing 17.3% to Sub-Saharan Africa's GDP in 2022 and employing 40% of the workforce ²⁷⁰ . However, the agriculture sector, particularly in Africa, is still in its early stages compared to other regions, requiring increased investments to mature the market. There is Insufficient flexible and patient capital available to bridge	<u>Low</u>	<p>The successful implementation of ARAF II aims to scale up existing business models and increase the number of agriculture companies in the market to achieve sufficient scale for providing climate resilience to smallholder farmers in Africa.</p> <p>With partnership from the GCF, ARAF II plans to demonstrate that agricultural value chains can be made climate resilient by investing in smallholder farming,</p>	<p>ARAF II aims to mobilize US\$ 120MM and \$12MM for the Technical Assistance Facility.</p> <p>ARAF II aims to focus its investments on rapidly expanding agri-businesses aimed at assisting smallholder farmers in adapting to climate change. This investment strategy allocates capital to twenty early-stage platform agri-businesses that provide climate adaptation solutions for smallholder farmers in East, West and North Africa.</p>

²⁷⁰ “World Bank Open Data.” World Bank Open Data, <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=ZG>. Accessed 4 Mar. 2024.

	the financing gap needed for the sector to effectively contribute to climate adaptation, making risk-tolerant, patient capital crucial for transforming livelihoods and supporting smallholder farmers		catalyzing millions of dollars in private capital in climate resilient agriculture. This influx of private capital has the potential to support businesses that build climate resilience for smallholders while also supporting overall growth of the agriculture sector with positive livelihoods implications for smallholder farmers. This is expected to result in a mature market and enabling environment across multiple sub-sectors within the adaptation segment to meet national adaptation targets in ARAF focus countries.	The fund intends to impact 4 million people directly and 16 million indirectly. ARAF II intends to additionally develop and share key insights and learnings with stakeholders in the industry in order to amplify impact.
Replicability	Many African companies struggle to access the necessary capital and support for effective scaling and demonstrating commercially viable, replicable models, compounded by a scarcity of financing platforms dedicated to promoting the deployment of crucial climate-resilient technology throughout the continent.	<u>Medium</u>	This influx of private capital has the potential to support businesses that build climate resilience for smallholders while also supporting overall growth of the agriculture sector with positive livelihoods implications for smallholder farmers. ARAF II plans to demonstrate the effectiveness of targeted TA in building companies' capacity to absorb investment, thus creating a blueprint for other financiers.	ARAF II aims to be established and provide financing (\$120M over the investment period of the fund) across the climate adaptation sector. Successful implementation of these structures/solutions are anticipated to promote replication both within and outside Africa. Approximately 20 early-stage African agribusinesses are intended to benefit through financial investment and technical assistance to strengthen their business models to provide climate adaptation products, services, and training to smallholder farmers. Most of ARAF's investments aim to have significant operations within the specific countries of focus creating employment opportunities which are expected to further develop capacity in the sector.
Sustainability	The establishment of sustainable and profitable business models across the agriculture and climate adaptation	<u>Low</u>	ARAF II plans to demonstrate and create financially sustainable enterprises that continue to operate through internal profits and follow-on investment capital	ARAF II aims to support companies through its investment and technical assistance so that they can be sustainable post intervention. The fund expects to implement best in class governance,

	<p>sub-sectors remains a challenge due to a lack of collaboration, knowledge sharing, and access to capital, hindering the sustainability of agricultural companies</p>		<p>even after ARAF has made its investments.</p> <p>ARAF II plans to create an enabling environment to support the growth of the climate adaptation sector by growing inclusive and sustainable business models in Africa specifically, in ARAF II's target countries.</p>	<p>institutional, and fiduciary frameworks to provide financing solutions to the sector.</p> <p>Preparing for successful exits is a core element of ARAF II's investment strategy. The team aims to dedicate substantial effort to comprehensively understand each portfolio company's strategies and operational elements, aiming to establish financially sustainable enterprises attractive to later-stage purchasers.</p> <p>ARAF II aims to structure investments to facilitate clear exit paths, medium-term liquidity, and risk mitigation. By catalyzing early-stage agribusinesses, ARAF aims to foster economies of scale, reducing costs and enhancing reliability in sourcing from smallholder farmers. These successful ventures are expected to serve as evidence to later-stage investors and corporations that inclusive business models can be economically viable and profitable.</p> <p>Anticipating similar impact, ARAF II is poised to wield comparable influence as its predecessor. ARAF II aims to strategically convene stakeholders within the agriculture sector to share knowledge and insights from its works. This alignment aims to foster contributions towards and synchronization with country level national adaptation strategies. This could build a roadmap for other funds looking to invest in emerging markets such as ACAP and other funds building similar models in other markets.</p>
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E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)

Select appropriate IRMF core and supplementary indicators to monitor project/programme progress. More than one IRMF (core and or supplementary) indicators may be selected as applicable for each GCF results area and project/programme outcome (as defined in the table in section B.2(b)). If IRMF indicators are unable to measure any given project/programme outcomes, project/programme-specific indicators should be developed under section E.5 (project/programme specific indicators).

GCF Result Area	IRMF Indicator	Means of Verification (MoV) <i>Sources of information and methods used to collect and report data /information to measure progress against targets</i>	Baseline <i>The starting point or current value of the indicators before the implementation of the project</i>	Target		Assumptions / Notes <i>Externalities and factors outside project management's control that may impact the outcomes. Data sources and methodologies applied for estimating baseline and targets</i>
				Mid-term <i>The estimated value of the indicator at the mid-point of the implementation</i>	Final ²⁷¹ <i>The estimated value of the indicator at the completion of the implementation</i>	
<u>All adaptation result areas</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	KPI monitored through Annual Impact reporting, and regular portfolio company reported data. Additional verification occurs through the implementation of the Impact measurement surveys. The team intends to repeat the survey every 12-24 months to understand the track record of performance and measure impact evolving over time	Direct: 0 Males 0 Females Indirect: 0 Males 0 Females	Total Direct and Indirect: 5,191,673 Male: 3,634,171 Female: 1,557,502 Direct Male: 741,668	Total Direct and Indirect: 19,850,870 Male: 11,910,522 Female: 7,940,348 Direct Male: 2,430,719	<i>Indirect beneficiaries were estimated using an average household size of 3.9, which excludes the head of the household (the average household size among the ten prospective ARAF II portfolio companies is 3.9).</i> ²⁷² Targets for female representation are based on various studies of female participation in formal agriculture enterprises. ²⁷³ (while female participation in the agriculture sector in Africa is much higher than these

²⁷¹ The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

²⁷² These countries include Ivory Coast Egypt, Ethiopia, Ghana, Kenya, Morocco, Nigeria, Senegal, Tanzania and Uganda

²⁷³ <https://globalcommunities.org/blog/lessons-from-kenya-on-empowering-women-in-housing-cooperatives/>,
<https://www.solidaridadnetwork.org/news/women-in-the-cocoa-sector-in-ghana-poised-for-action/>,
<https://www.tandfonline.com/doi/full/10.1080/00220388.2022.2032671>

				<p>Direct Female: 317,858</p> <p>Indirect Male: 2,892,504</p> <p>Indirect Female: 1,239,634</p> <p>Direct: 1,059,525</p> <p>Indirect: 4,132,148</p> <p>Male :70% Female: 30%</p>	<p>Direct Female: 1,620,479</p> <p>Indirect Male: 9,479,803</p> <p>Indirect Female: 6,319,869</p> <p>Direct: 4,051,198</p> <p>Indirect: 15,799,672</p> <p>Male :60% Female: 40%</p>	<p><i>targets, the majority of this activity is informal, and subsistence-level).</i></p> <p>Assumptions: macroeconomic stability, no global financial crisis, no major pandemics, no distorting subsidies, or market barriers are in place in recipient companies.</p> <p>Assumptions additionally based on ARAF I performance and metrics from 60DB surveys</p> <p>Methodology ensures that double counting is avoided. Individuals will be reached through multiple indicators</p>
<p><u>ARA1 Most vulnerable people and communities</u></p>	<p><u>Core 2: Direct and indirect beneficiaries reached</u></p>	<p>KPI monitored through Annual Impact reporting, and regular portfolio company reported data. Additional verification occurs through the implementation of the Impact measurement surveys. The team intends to repeat the survey every 12-24 months to understand the track record of</p>	<p>Direct: 0 Males 0 Females</p> <p>Indirect: 0 Males 0 Females</p>	<p>Total Direct and Indirect: 5,191,673</p> <p>Male: 3,634,171</p> <p>Female: 1,557,502</p>	<p>Total Direct and Indirect: 19,850,870</p> <p>Male: 11,910,522</p> <p>Female: 7,940,348</p>	<p>Indirect beneficiaries are estimated using an average household size of 3.9 (the average household size among the ten prospective ARAF II portfolio companies is 3.9).</p> <p>Targets for female representation are based on various studies of female participation in formal agriculture enterprises.²⁷⁴ (<i>while female</i></p>

²⁷⁴ <https://globalcommunities.org/blog/lessons-from-kenya-on-empowering-women-in-housing-cooperatives/>,
<https://www.solidaridadnetwork.org/news/women-in-the-cocoa-sector-in-ghana-poised-for-action/>,
<https://www.tandfonline.com/doi/full/10.1080/00220388.2022.2032671>

		performance and measure impact evolving over time		<p>Direct Male: 741,668</p> <p>Direct Female: 317,858</p> <p>Indirect Male: 2,892,504</p> <p>Indirect Female: 1,239,634</p> <p>Direct: 1,059,525</p> <p>Indirect: 4,132,148</p> <p>Male :70% Female: 30%</p>	<p>Direct Male: 2,430,719</p> <p>Direct Female: 1,620,479</p> <p>Direct: 4,051,198</p> <p>Indirect: 15,799,672</p> <p>Male :60% Female: 40%</p>	<p><i>participation in the agriculture sector in Africa is much higher than these targets, the majority of this activity is informal, and subsistence-level).</i></p> <p>Assumptions: macroeconomic stability, no global financial crisis, no major pandemics, no distorting subsidies, or market barriers are in place in recipient companies.</p> <p>Assumptions additionally based on ARAF I performance and metrics from 60DB surveys</p>
<u>ARA1 Most vulnerable people and communities</u>	<u>Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new</u>	KPI monitored through Annual Impact / Climate resilience reporting, and regular portfolio company reported data. Additional verification occurs through the implementation of the Impact measurement	<p>Direct: 0 Males 0 Females</p> <p>Indirect: 0 Males</p>	<p>Total Direct and Indirect 2,076,669</p> <p>Direct: 423,810</p>	<p>Total Direct and Indirect: 9,925,435</p> <p>Direct: 2,025,599</p>	It is assumed that ARAF and its Investee companies will have a moderate ²⁷⁶ ability to adapt to climate impacts. ARAF invests in companies that help farmers adopt new/ improved ways of farming. ARAF can provide technical assistance to its portfolio

²⁷⁶ The percentage increase from the rough baseline assumption to endline target is classified as either low (5-9%), moderate (10-15%) or high (16+%), based on market and sector assumptions, past experience, Fund pipeline knowledge, etc.

	<p><u>climate-resilient livelihood options</u></p> <p><u>(Ability to adapt)</u></p>	<p>surveys. The team intends to repeat the survey every 12-24 months to understand the track record of performance and measure impact evolving over time</p>	<p>0 Females</p>	<p>Indirect: 1,652,859</p> <p>Midline target: 40%²⁷⁵</p> <p>Male :70% Female: 30%</p> <p>Direct Male: 296,667</p> <p>Direct Female: 127,143</p> <p>Indirect Male: 1,157,001</p> <p>Indirect Female: 495,858</p>	<p>Indirect: 7,899,836</p> <p>Endline target: 50%</p> <p>Male: 60% Female: 30%</p> <p>Direct Male: 1,215,359</p> <p>Direct Female: 810,240</p> <p>Indirect Male: 4,739,902</p> <p>Indirect Female: 3,159,934</p>	<p>companies on teaching improved farming methods, which will facilitate improved ability to adapt among end beneficiaries.</p> <p>It is assumed that the climate resilience of beneficiaries will be enhanced through their use of the products and services provided by portfolio companies.</p> <p>In addition, beneficiaries are expected to have access to improved climate resilient livelihoods. Female representation is based on national demographics.</p> <p>Assumptions additionally based on ARAF I performance and metrics from 60DB surveys.</p> <p>Assumptions: macroeconomic stability, no global financial crisis, no major pandemics, no distorting subsidies, or market barriers are in place in recipient companies.</p>
<p><u>ARA1 Most vulnerable people and communities</u></p>	<p><u>Supplementary 2.4: Beneficiaries (female/male) covered by new or</u></p>	<p>KPI monitored through Annual Impact and climate resilience reporting, and regular portfolio company reported data.</p>	<p>Direct: 0 Males 0 Females</p>	<p>Total Direct and Indirect: 1,557,502</p>	<p>Total Direct and Indirect: 7,940,348</p>	<p>It is assumed that ARAF and its investee companies will have a moderate ability to influence end beneficiaries' likelihood to receive</p>

²⁷⁵ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 35%

	<p><u>improved early warning systems</u></p> <p><u>(beneficiaries who are 'very likely' to receive a warning for a climate shock in the future)</u></p>	<p>Additional verification occurs through the implementation of the Impact measurement surveys. The team intends to repeat the survey every 12-24 months to understand the track record of performance and measure impact evolving over time</p>	<p>Indirect: 0 Males 0 Females</p>	<p>Direct: 317,858</p> <p>Indirect: 1,239,644</p> <p>Midline target: 30%²⁷⁷</p> <p>Direct Male: 222,500</p> <p>Direct Female: 95,357</p> <p>Indirect Male: 867,751</p> <p>Indirect Female: 371,893</p>	<p>Direct: 1,620,479</p> <p>Indirect: 6,319,869</p> <p>Endline target: 40%</p> <p>Direct Male: 972,288</p> <p>Direct Female: 648,192</p> <p>Indirect Male: 3,791,921</p> <p>Indirect Female: 2,527,948</p>	<p>climate warnings. Supporting early warning systems will not likely form part of investee companies' core business activities, but ARAF can provide technical assistance to both aggregator companies and digital companies on implementing early warning systems for farmers (e.g. digital companies can support provision of weather information through digital channels and aggregator companies' can provide capacity building to farmers on risk identification). Potential for higher influence/uptake may be limited by local connectivity/data access challenges and farmer challenges in understanding/willingness to integrate complex information from early warning systems, thus resulting in a moderate target.</p> <p>Female representation is based on national demographics.</p> <p>Assumptions additionally based on ARAF I performance and metrics from 60DB surveys</p>
<p><u>ARA1 Most vulnerable people and communities</u></p>	<p><u>Supplementary 2.5: Beneficiaries (female/male) adopting</u></p>	<p>KPI monitored through Annual Impact and Climate (ability to adapt) reporting, and regular portfolio company reported</p>	<p>Direct: 0 Males 0 Females</p>	<p>Total Direct and Indirect: 2,076,669</p>	<p>Total Direct and Indirect: 9,925,435</p>	<p>Compared to Ability to Adapt and Ability to Absorb, It is assumed that farmers have a higher starting point of access to enablers at the time of</p>

²⁷⁷ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 27%

	<p><u>innovations that strengthen climate change resilience (access to enablers)</u></p>	<p>data. Additional verification occurs through the implementation of the Impact measurement surveys.</p>	<p>Indirect: 0 Males 0 Females</p>	<p>Direct: 423,810</p> <p>Indirect: 1,652,859</p> <p>Midline target: 40%²⁷⁸ Male :70% Female: 30%</p> <p>Direct Male: 296,667</p> <p>Direct Female: 127,143</p> <p>Indirect Male: 1,157,001</p> <p>Indirect Female: 495,858</p>	<p>Direct: 2,025,599</p> <p>Indirect: 7,899,836</p> <p>Endline target: 50%</p> <p>Male :60% Female: 40%</p> <p>Direct Male: 1,215,359</p> <p>Direct Female: 810,240</p> <p>Indirect Male: 4,739,902</p> <p>Indirect Female: 3,159,934</p>	<p>investment based on Company core business activities/offerings. ARAF expects to work with portfolio companies to help improve target offerings based on feedback from farmers on surveys.</p> <p>Female representation is based on national demographics.</p> <p>Assumptions additionally based on ARAF I performance and metrics from 60DB surveys</p>
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²⁷⁸ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 35%

<p><u>ARA2 Health, well-being, food, and water security</u></p>	<p><u>Core 2: Direct and indirect beneficiaries reached</u></p>	<p>KPI monitored through Annual Impact (quality of life) reporting, and regular portfolio company reported data. Additional verification occurs through the implementation of the Impact measurement surveys.</p>	<p>Direct: 0 Males 0 Females</p> <p>Indirect: 0 Males 0 Females</p>	<p>Total Direct and Indirect: 2,595,837</p> <p>Direct: 529,763</p> <p>Indirect: 2,066,074</p> <p>Midline target: 50%²⁷⁹</p> <p>Male :70% Female: 30%</p> <p>Direct Male: 370,834</p> <p>Direct Female: 158,929</p> <p>Indirect Male: 1,446,252</p>	<p>Total Direct and Indirect: 12,903,066</p> <p>Direct: 2,633,279</p> <p>Indirect: 10,269,787</p> <p>Endline target:65%²⁸⁰</p> <p>Direct Male: 1,579,967</p> <p>Direct Female: 1,053,311</p> <p>Indirect Male: 6,161,872</p> <p>Indirect Female: 4,107,915</p>	<p>It is assumed that ARAF and Investee companies have a high ability to influence farmers' quality of life. Improving quality of life may be broadly interpreted by end beneficiaries and is therefore able to be influenced by companies in all of ARAF's investment platforms (aggregator, digital and finance) as a part of core business activities. This explains the high target</p> <p>It is assumed that the well-being (increased income, Quality of life is a good composite metric that measures monetary and non-monetary improvements) of beneficiaries and their households are expected to improve as a result of their access to the products and services provided by portfolio companies.</p> <p>Female representation is based on national demographics.</p> <p>Assumptions: macroeconomic stability, no global financial crisis, no major pandemics, no distorting subsidies, or market barriers are in place in recipient companies.</p>
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²⁷⁹ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 39%

²⁸⁰ Assumptions additionally based on ARAF I performance and metrics from 60DB surveys.

				Indirect Female: 619,822		Assumptions additionally based on ARAF I performance and metrics from 60DB surveys
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E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Select at least two relevant IRMF core (enabling environment) indicators to monitor and elaborate the baseline context and project/programme's targeted outcome against the respective indicators. Rate the current state (baseline) vis-à-vis the target scenario and select the geographical scope of the outcome to be assessed. Describe how the project/programme will contribute towards the target scenario. Refer to a case example in the accompanying guidance to complete this section.

Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
<u>Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner</u>	<p>ARAF II target countries lack sufficient collaboration and knowledge sharing between stakeholders that builds the sector towards more climate resilience.</p> <p>ARAF II aims to make investments and create and disseminate insights to ensure knowledge is distributed and best practice is applied throughout the sector.</p>	<u>medium</u>	Knowledge of financing products, technical assistance and best practices within each sub sector are developed. Sector-wide improved collaboration and alignment on climate resilience. Collaboration between different ARAF stakeholders towards developing scalable solutions for climate adaptation.	ARAF supports regional climate and agriculture-related initiative at the public and private sector levels, with the members of the team contributing insights from our investment experience and research to wider discourse and knowledge sharing on agriculture and smallholder farmers, impact investment and measurement, climate change and adaptation, to name a few	<u>Multi-countries</u>
<u>Core indicator 7: Degree to which GCF Investments contribute to market development/transformation at the sectoral, local, or national level</u>	Agriculture faces challenges due to a lack of success stories in its target areas, undermining market confidence. National markets exhibit limited adaptive capacity, particularly within Africa's vital agriculture sector, impacting economic stability. Despite climate shocks and macroeconomic conditions hindering sector growth,	<u>medium</u>	Strong financial markets are essential for providing sufficient capital and risk tolerance to support the climate resilience of smallholder farmers, enabling the establishment and growth of companies. These markets should offer a variety of products to facilitate investment across the	ARAF II aims to offer innovative financing solutions to top-tier agribusinesses in its target countries, fostering climate resilience; this funding not only directly supports these vital models but also has the potential to catalyze replication by other financiers, amplifying market	<u>Multi-countries</u>

	<p>ARAF II aims to enhance climate resilience and facilitate adaptation through demonstration and convening capabilities.</p>		<p>sector, thereby enhancing the adoption of climate resilient technologies. Additionally, enhancing the capacity and willingness of financial institutions to offer customized financing solutions is crucial for further development in this space.</p>	<p>impact and creating sufficient demonstration for new businesses to enter and develop markets.</p> <p>For example, in ARAF I, our portfolio company SunCulture has significantly boosted engagement in productive use assets in Kenya. SunCulture designs, sells, finances, and offers after-sales support for solar-powered water pumps to farmers in East and West Africa. Over 80% of surveyed farmers have reported marked increases in yields, incomes, and overall quality of life as a direct result of their collaboration with the company.</p>	
<p><u>Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation</u></p>	<p>In rural areas of the target countries for ARAF II, potential beneficiaries face significant challenges in accessing agricultural technology. Limited access to finance, acting as a major barrier, exacerbates this issue. Therefore, there is a pressing need for innovative financial solutions to mitigate risks for institutional investors, consolidate funds on a larger scale, and bridge the gap, facilitating access to agricultural technology in Africa.</p>	<p><u>medium</u></p>	<p>ARAF II aims to expand its reach and impact across target countries on a larger scale. The program is expected to facilitate investments in both new and established companies, enabling them to enhance their sales capacity in terms of both depth and breadth. This includes reaching new clients within existing coverage areas as well as expanding into new geographic.</p>	<p>ARAF II expects to invest in platform agribusinesses that provide smallholder farmers with access to sustainable farming technologies and practices, innovative financing solutions and/or improved inputs.</p> <p>Additionally, ARAF II endeavors to invest in companies that introduce innovative digital and technological solutions to enhance the climate resilience of leading agribusinesses. The funding provided is expected to</p>	<p><u>Multi-countries</u></p>

			<p>ARAF is anticipated be one of only a handful of investment funds globally that focuses specifically upon agricultural SMEs that build smallholder farmers' resilience to climate change via enhanced access to markets, technology credit, information, and extension services. As such, ARAF is expected to serve as a much-needed vehicle for the deployment of climate-focused impact capital into its target countries. markets.</p>	<p>not only directly support the growth of these vital business models but also holds the potential to inspire replication by other financiers, thereby amplifying its impact on the market.</p>	
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E.5. Project/programme specific indicators (project outcomes and outputs)

*This section should list out project/programme-specific performance indicators (outcomes and outputs) that are not covered in sections above (E.1-E.4). List down tailored indicators to monitor /track progress against relevant project/programme results (outcomes/outputs). AEs have the freedom to decide against which outcomes they would like to set project/programme specific indicators. If any co-benefits are identified in sections B.2(a)(b), and D.3, AEs are encouraged to add and monitor co-benefit indicators under the “**Project/programme co-benefit indicators**” section in table below. Add rows as needed. Please number each outcome and output as shown below to indicate association of outputs to the contributing outcome.*

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV) <i>Sources of information and methods used to collect and report data/information to measure progress against targets</i>	Baseline <i>The starting point or current value of the indicators before the implementation of the project</i>	Target		Assumptions / Note <i>Externalities and factors outside project management's control that may impact on the Component. Data sources and methodologies applied for estimating baseline and targets.</i>
				Mid-term <i>The estimated value of the indicator at the mid-point of the implementation</i>	Final <i>The estimated value of the indicator at the completion of the implementation</i>	
Outcome 1: Improved farmer access to markets and productive resources	<i>Percentage reporting improved access to markets</i>	<i>Portfolio data (as provided in Annual Reports) User surveys</i>	0	40% ²⁸¹	60%	It is assumed that ARAF and Investee companies have a high ability to influence farmers' access to markets. Providing access to markets will likely form a core business activity of most aggregator and digital companies (which form the biggest proportion of the portfolio) and an indirect (non-core) impact of the services provided by finance platforms companies. These companies can provide farmers with direct access to

²⁸¹ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 39%.

						<p>markets, therefore with lower risks to achieving this impact</p> <p><i>Farmers are readily available for surveys, and the sampling process ensures the selection of a representative group that accurately reflects the broader farming community. Targets are derived from current 60DB analysis and reports</i></p>
	<p>Percentage reporting first time access</p>	<p>Portfolio data (as provided in Annual Reports and company sales) User surveys</p>	<p>0</p>	<p>40%²⁸²</p>	<p>60%</p>	<p>It is assumed that ARAF and Investee companies have a high ability to influence farmers' access to markets. Given the type of products and services offered by the companies that ARAF targets, it is predicted that most farmers will be accessing these for the first time. Additionally, ARAF aims to improve first-time access by collaborating with existing portfolio companies to target new farmers who are experiencing these products for the first time, which justifies a high target.</p> <p><i>Farmers are readily available for surveys, and the sampling process ensures the selection of a representative group that</i></p>

²⁸² Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 35%.

						<p><i>accurately reflects the broader farming community.</i></p> <p><i>Targets are derived from current 60DB analysis and reports</i></p>
	<p><i>Percentage reporting improved way of farming,</i></p>	<p><i>User surveys</i></p>	<p>0</p>	<p>40%²⁸³</p>	<p>50%</p>	<p>It is assumed that ARAF and Investee companies have a moderate ability to influence farmers' way of farming. Providing Improved way of farming will likely form a core business activity of most ARAF Target companies. Farmers are expected to see an improvement in their practices as they engage with the company, However, past survey results indicate that these practices take time to adopt, which represents a moderate risk to impact, and explains a moderate rather than a high target.</p>
<p>Outcome 2: Increased farmer resilience and adaptive capacity</p>						

²⁸³ Targets have been derived with reference to the Fund | year 1 60DB survey results, which have been used to roughly assume a baseline of 35%.

	<i>Percentage reporting access to training / info / advice related to their farm 'on a regular basis'</i>	<i>User surveys</i>	0	45% ²⁸⁴	55%	It is assumed that ARAF and Investee companies have a high ability to influence farmers' access to farm advice. Providing farm advice will likely form part of aggregator companies' core business activities, and will be indirectly provided by digital services companies who enable farmers to receive advice more easily. Investee companies can directly provide advice and training to farmers and therefore there is little risk to achieving this output.
	<i>Percentage reporting timely access to weather information to make farm related decisions</i>	<i>User surveys</i>	0	40% ²⁸⁵	50%	It is assumed that ARAF and Investee companies have a high ability to influence farmers' access to farm advice. Providing farm advice will like form part of aggregator companies' core business activities, and will be indirectly provided by digital services companies who enable farmers to receive advice more easily. Investee companies can directly provide advice and training to farmers and therefore there is little risk to achieving this output.

²⁸⁴ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 34%.

²⁸⁵ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 35%.

	<i>Percentage reporting improved ability to absorb.</i>	<i>User surveys</i>	<i>0</i>	<i>20%</i>	<i>30%</i>	It is assumed that ARAF and its Investee companies will have a low ability to absorb at baseline due to the poverty profile of smallholder farmers on the continent; however, will have a moderate ability to influence farmers' ability to absorb. Innovative financial solutions companies will directly contribute to the ability to absorb through direct support to end beneficiaries using various means such as credit, insurance, warnings etc. While innovative financial solutions companies form a smaller proportion of the portfolio, both aggregator and digital platforms companies will also indirectly contribute to the ability to absorb by increasing farmers resilience to climate shocks by various means and as a result, increase their available income to absorb shocks. This explains the moderate target.
Outcome 3:	<i>Percentage reporting income improvement.</i>	<i>User surveys</i>	<i>0</i>	<i>50%²⁸⁶</i>	<i>65%</i>	

²⁸⁶ Actual baseline: unknown, as Fund II not yet established Estimated baseline: 40%

Enhanced farmer income, livelihoods, and productivity						<p>It is assumed that ARAF and Investee companies have a high ability to influence farmers' revenue. All of ARAF's investment platforms (aggregator, digital and finance) provide services which improve efficiencies for farmers and therefore can improve revenue generation as a part of core business activities. This explains the high target.</p> <p><i>Farmers are accessible for surveys.</i></p> <p><i>Income improvement could include several indicators such as income increase, reduction in time spent at work, improved access, reliability of income, consistency of income, etc. Targets are derived from current 60DB analysis and reports</i></p>
	Percentage reporting improved yields.	User surveys	0	50% ²⁸⁷	65%	<p>It is assumed that ARAF and Investee companies have a high ability to influence farmers' yields. Working to improve yields will likely form a core business activity of most ARAF companies ,</p>

²⁸⁷ Targets have been derived with reference to the Fund I year 1 60DB survey results, which have been used to roughly assume a baseline of 42%.

						through multiple support functions including improving access to inputs, practices, access to mechanisation, irrigation solutions and access to information. This explains the high target. Yields may be influenced by other factors such as weather and climate, therefore explaining why this target is slightly below some of the other "high" targets.
	<i>Percentage of beneficiary households living below World Bank's line per person per day.</i>	<i>User surveys.</i>	0	25%	30%	It is assumed that ARAF and Investee companies have a low ability to influence farmers' overall poverty profile. ARAF already works with companies that aim to support the Bottom of the Pyramid population with access to improved services that are offered through its portfolio companies. ARAF will work with portfolio companies to improve access to services and improve their income profile. While this is a net positive in terms of impact, the may technically reflect as lowering performance against the target when poverty level decreases.

						<p><i>Farmers are accessible for surveys. We expect that ARAF II investments will reach and support the most vulnerable people across portfolio company customers.</i></p>
<p>Outcome 4: Agribusinesses demonstrate scale and viability of innovative models built towards climate resilience</p>	<p><i>Number of interventions expected to support sustainable business operations (ESG/climate).</i></p>	<p><i>TA Projects</i></p>	<p><i>0</i></p>	<p><i>4 projects</i></p>	<p><i>8 projects</i></p>	<p><i>Assumes macro-economic and political stability in countries of ARAF II focus. Assumes supportive policy and regulatory environment. Assumes that climate change, resilience and adaptation efforts in emerging markets remain critical to institutional investors.</i></p>
	<p><i>Number of interventions expected to support farmer training.</i></p>	<p><i>TAF projects reporting</i></p>	<p><i>0</i></p>	<p><i>5 projects</i></p>	<p><i>15 projects</i></p>	<p><i>Assumes that ARAF companies will take on farmer training projects to support farmers.</i></p>
	<p><i>Number of interventions supporting business development.</i></p>	<p><i>TAF projects</i></p>	<p><i>0</i></p>	<p><i>20 projects</i></p>	<p><i>25 projects</i></p>	<p><i>Assumes that ARAFII is able to raise TAF funds for its business development and that the companies take up projects in line with this. As seen in ARAF I most portfolio companies take up Business development projects ARAF II expects to regularly prepare reports for investors covering TA fund management and activities updates</i></p>

	<i>Direct and indirect work opportunities created at portfolio company level.</i>	<i>Quarterly portfolio company data and independent verifications.</i>	0	<i>Direct Jobs²⁸⁸</i> 17,147	<i>Direct Jobs</i> 77,650	<i>Direct jobs are defined as full time, part time, and contract work opportunities directly provided by portfolio companies. To be further iterated upon with guidance from local agribusinesses and experts in the field.</i>
Output 1: ARAF II established with \$120MM and \$12MM for the Technical Assistance Facility is raised	<i>Establishment of ARAF II Fund.</i>	<i>USD 120MM fundraised</i>	0	\$120MM	\$120MM	<i>Assumes macro-economic and political stability in countries of ARAF II focus and that ARAF successfully raises the Fund and TAF. ARAF II expects to regularly prepare reports for investors covering fund management and activities updates</i>
	<i>ARAF II fully fundraised.</i>					
	<i>ARAF II TA raised.</i>	<i>USD 12MM fundraised</i>	0	\$12MM	\$12MM	
Output 2: Companies expand and improve their offering better addressing the needs of SHFs (increased access to climate information, affordable financing, climate smart inputs, training, and formal markets)	<i>Number of companies invested in.</i>	ARAF portfolio companies	0	20 companies	20 companies	<i>Assumes macro-economic and political stability in countries of ARAF II focus. Assumes supportive policy and regulatory environment</i>
Output 3: Companies grow and increase their sustainability (KPI, revenue increase/EBITDA/	<i>Revenue / EBITDA increases.</i>	<i>Company data, Audited financial statements, Annual reports,</i>	0	20%	40%	<i>Assumes macro-economic and political stability in countries of ARAF II focus. Assumptions are tied to fund I performance.</i>

²⁸⁸ Estimates based on model.

units sold, capital leveraged)						
Output 4: Companies enhance female participation and inclusion in the agricultural value chain.	<i>Percentage of female employment.</i>	<i>Portfolio company data</i>	0	30%	40%	<i>Female and male targets will be rationalized based on their labor force participation rate for ARAF II target countries.</i>
						<i>Indicative impact target. To be further iterated upon with guidance from local agribusinesses and experts in the field.</i>
Output 5: Capital leveraged via co-investments and partnerships	<i>Number of portfolio companies receiving follow on capital investment.</i>	<i>Portfolio data (as provided in Annual Reports)</i>	0	20 companies	20 companies	<i>Assumptions: Regulatory environment and macro-economic conditions remain enabling for additional capital to be crowded in.</i>
	<i>Multiple for Follow-on capital</i>	<i>Portfolio data (as provided in Annual Reports)</i>	0	2X	3X	<i>The follow-on is anticipated to be determined during the course of the fund and shows that the fund's investment is expected to be leveraged by 2X to attract additional co-investors to our portfolio companies. Assumptions are tied to fund I performance</i>
Project/programme co-benefit indicators						
Co-Benefit 1: Female farmers to have improved access to training, and company offerings and Improved inclusivity in the agricultural value chain.	<i>Number of interventions expected to support female farmers.</i>	TAF projects	0	2 projects	5 projects	<i>ARAF II expects to regularly prepare reports for investors covering TA fund management and activities updates</i>

Co-Benefit 2: Improved inclusivity in the agricultural value chain	Number of companies that have Gender Action Plans	Portfolio data (as provided in Annual Reports)	0	20 companies	20 companies	ARAF II expects to track progress on gender inclusivity through Gender action plans.
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E.6. Project/programme activities and deliverables

All project activities should be listed here with a description and sub-activities.

Please number the activities as shown below to indicate association of activities to the related outputs provided above in section E.5. Similarly, please number sub-activities as shown below to associate to the related activity.

Activities	Description	Sub-activities	Deliverables
Activity 1.1: ARAF II Fundraising, Build on existing pipeline, Screen new target markets.	Target fund size is \$120MM and \$12MM for the Technical Assistance Facility The ARAF team with support of the accredited entity aim to look to close this funding from the GCF, as well as from development finance institutions and institutional investors.	Sub-activity 1.1.1. – Fund formation activities	<ul style="list-style-type: none"> One (1) Fund entity formed and all partnership terms agreed
	The ARAF team identifies pipeline opportunities with strong climate impact and innovation potential either via acquisition strategy or platform building strategy.	Sub-activity 1.1.2. – Fundraising activities	<ul style="list-style-type: none"> Achieve final close of Fund at target size of \$120MM

		Sub-activity 1.1.3. Research and sourcing	<ul style="list-style-type: none"> Build pipeline of investable opportunities across three verticals: Aggregator Platforms, Digital Platform, Innovative Financial Solutions
Activity 1.2: Invest in local agribusinesses across three strategic themes: Aggregator Platforms, Digital Platforms, and Innovative Financial Solutions	The ARAF team follows a rigorous and structured investment process from sourcing through evaluation, due diligence, and transaction documentation	Sub-activity 1.2.1: Initial Diligence	<ul style="list-style-type: none"> Initial review of opportunity against investment criteria
		Sub-activity 1.2.2: Preliminary Investment Memo	<ul style="list-style-type: none"> 1 pre-liminary diligence report, risk assessment and recommendation per company
		Sub-activity 1.2.3: Initial IC approval	<ul style="list-style-type: none"> 1 Initial ARAF II IC approval per company
		Sub-activity 1.2.4: Full Commercial, Legal, Financial Tax, ESG Due Diligence	<ul style="list-style-type: none"> 1 Final diligence report, including detailed commercial, financial, legal and ESG matters including recommendations per company.
		Sub-activity 1.2.5: Agree terms and complete diligence	<ul style="list-style-type: none"> 1 Final IC approval per company¹ Definitive investment documents to include sign off on Legal and ESG per company
		Sub-activity 1.2.6: Investment documentation and closing	<ul style="list-style-type: none"> 1 Capital call based on portfolio company requirements per company.
Activity 1.3.1: Post investment management	Monitor portfolio performance by building a collaborative relationship with management team and instituting an effective reporting protocol.	Sub-activity 1.3.1.1.– Portfolio company board meetings	<ul style="list-style-type: none"> Investment team members participate in periodic board meetings to ensure compliance with governance standards, compliance with shareholder's agreement, add value on key governance matters and support on key decision making. . Quarterly reports

		Sub-activity 1.3.1.2 – Ensuring compliance with shareholder agreements	<ul style="list-style-type: none"> Update on the industry/ market trends, summary of the investments and divestments in the previous quarter/ year and a status report on each investment with an internal valuation and key updates on Impact, ESG and governance.
		Sub-activity 1.3.1.3 – Portfolio support across financial management, talent, impact/ESG management, capital raise, etc.	<ul style="list-style-type: none"> ARAF intends to provide quarterly reports and annual reports per year for the investment period
		Sub-activity 1.3.1.4 – Annual Reporting to LPs, stakeholders	<ul style="list-style-type: none"> ARAF II shall submit the following reports to investors; i) Quarterly/Annual reports and fund performance, ii) Annual audited statements iii) Annual ESG report iv) Annual Impact report and v) Annual TA report
Activity 1.3.2: Leverage capital and manage exits	The ARAF team exits out of the portfolio companies and negotiates and executes the exit documentation. The exit proceeds are received	Sub-activity 1.3.2.1– Manage exit process by identifying exit potential in the portfolio, narrowing down on options, and executing closure of transaction.	<p>The team assesses potential exit channels and intends to provide 1 exit report per exit.</p> <ul style="list-style-type: none"> Negotiation of terms and decision for final exits. Negotiation and execution of all exit documentation. <p>Receipt and subsequent distribution of the exit proceeds.</p>
Activity 1.4: Monitor portfolio on robust impact metrics (including ESG, Gender, Climate)	Monitor portfolio performance metrics by building a collaborative relationship with management team and instituting an effective reporting protocol.	Sub-activity 1.4.1 – Quarterly and Annual financial and impact reporting received from the portfolio companies	<ul style="list-style-type: none"> Provide annual ESG and impact report to investors.
		Sub-activity 1.4.2 – Synthesize and share results from annual surveys on portfolio companies:	<ul style="list-style-type: none"> The Fund aims to consolidate data for analysis and form insights at Fund level on a regular basis. Annual impact report provided

		<p>Sub-activity 1.4.3 – Tracking and managing for the development of ESG risk areas</p>	<ul style="list-style-type: none"> Track progress against set objectives ARAF intends to provide quarterly reports and annual reports per year for the investment period.
		<p>Sub-activity 1.4.4 – Annual Monitoring</p>	<ul style="list-style-type: none"> Provide timely feedback to investee companies where realignment in their business strategy is required. ARAF intends to provide quarterly reports and annual reports per year for the investment period.
<p>Activity 2.1: Set up and fundraising of the Technical Assistance Facility</p>	<p>Operationalize the TAF. Establish key operational structures for the facility. Carry out needs assessment to identify eco-system gaps and portfolio company baseline. Deploy grant funding to approved initiatives and monitor performance against impact targets</p>	<p>Sub-activity 2.1.1. – Set up of TAF</p> <ul style="list-style-type: none"> 2.1.1.1 – Complete TAF fundraising from co-financiers. 2.1.1.2 – Establish the Technical Assistance Committee (TAC) and approve TA operational manual 	<ul style="list-style-type: none"> Close \$12MM in additional grant funding from co-financing partners. Technical Assistance Committee formed, in alignment with the FAA. 1 Service provider list developed and approved by the TA Manager and TAC.
		<p>Sub-activity 2.1.2 – Needs assessment of portfolio and eco system gaps</p> <ul style="list-style-type: none"> 2.1.2.1 – Identify partners and service providers to collaborate with on the TAF. 	<ul style="list-style-type: none"> Portfolio and ecosystem assessment carried out and documented per project carried out Report provided per project
		<ul style="list-style-type: none"> 2.1.2.2 – Engage consultants (such as 60 decibels or similar third party provider) to carry out a baseline assessment of portfolio companies’ performance and needs assessments for ecosystem gaps. 	<ul style="list-style-type: none"> Strong pipeline of projects developed through eco-system engagement in response to needs analysis and gaps in portfolio company capacity. ARAF intends to provide quarterly reports and annual report per year for the investment period.

<p>Activity 2.2: Technical assistance for enhancing climate adaptation and gender initiatives, ESG, business development, impact measurement</p>	<p>Technical assistance grants for Lean Data Support to understand and augment the impact of portfolio companies.</p>	<p>Sub-activity 2.2.1.1: Conducting data collection services and evaluation - Activities to facilitate impact assessments include conducting climate studies, surveys, and data collection initiatives. Additionally, we aim to utilize Lean Data to consistently gather data and insights from farmers served by ARAF’s investee companies. This data is expected to be instrumental in tracking each company’s business and social performance, allowing us to offer recommendations for improvement.</p>	<p>For each grant approved per project:</p> <ul style="list-style-type: none"> • TAC approval secured and documented • Quarterly reporting of grant progress and outcomes against targets <p>At least one learning session to draw insights from TAF outcomes held every year</p>
	<p>Technical assistance grants for Climate adaptation interventions include gender-specific initiatives.</p>	<p>Sub-activity 2.2.2.1: Support training and extension services to enable smallholder farmers to adopt climate-resilient inputs and practices – To support training and extension services to enable small holder farmers to adopt climate resilient inputs and practices and be able to access critical weather information to make more informed decision about their crops/livestock. Sub-activity 2.2.2.2: Shifting smallholders to value chains that are better aligned with a changing climate environment –</p>	<p>For each grant approved per project::</p> <ul style="list-style-type: none"> • TAC approval secured and documented • Quarterly reporting of grant progress and outcomes against targets <p>At least one learning session to draw insights from TAF outcomes held every year</p>

		<p>Capital to shift a business and its smallholder suppliers/customers to value chains that are better aligned with a changing climate environment within the desired locations, or to new locations that are more viable for the desired value chains. Sub-activity 2.2.2.3: Gender initiatives - TAF plans to identify critical knowledge gaps in agriculture together with investees and work closely with local partners to support the delivery of training and programs targeted at increasing knowledge for women in climate-smart sectors.</p>	
	<p>Technical assistance grants for Business Development Services (BDS) and Management/ Employee Training</p>	<p>Sub-activity 2.2.3.1: Technical assistance, such as sales and marketing, human capital, and overall organizational capacity - Improve financial controls, market studies, conduct feasibility studies to increase market access to expand scale and enable resilience. ERP systems, etc. Sub-activity 2.2.3.2: Leadership development via board placement, manager development programs, and mentorship Sub-activity 2.2.3.3: Community engagement for portfolio company leaders to facilitate knowledge sharing and access to experts, such as CEO summits, capacity-building summits, and CEO networks.</p>	<p>For each grant approved per project::</p> <ul style="list-style-type: none"> ● TAC approval secured and documented ● Quarterly reporting of grant progress and outcomes against targets <p>At least one learning session to draw insights from TAF outcomes held every year</p>

	Technical assistance grants for Other (TA Audit Fees/ Legal Fees/ Environmental, social governance (ESG) reporting)	Sub-activity 2.2.4.1: TA audit fees, legal support costs, ESIA completion costs, and ESG reporting costs - developing tailored ESG toolkits and ESAPs to improve overall business decision-making on climate impacts - developing tailored ESG toolkits and ESAPs to improve overall business decision-making on climate impact.	For each grant approved per project: <ul style="list-style-type: none"> • TAC approval secured and documented • Quarterly reporting of grant progress and outcomes against targets At least one learning session to draw insights from TAF outcomes held every year.
Activity 3.1: Partner with co-investors and stakeholders to amplify impact	ARAF II team develops partnerships and engages with stakeholders (government, investors, opcos, capacity building programs) to improve coordination, address market barriers and share knowledge in ARAF markets.	Sub-activity 3.1.1: ARAF works with co-investors to increase capital access to target pipeline companies.	ARAF builds network and support for portfolio companies with co-investors. ARAF intends to provide quarterly reports and annual reports per year for the investment period.
		Sub-activity 3.1.2: ARAF shares knowledge and learnings gained across the portfolio to amplify fund impact. ARAF builds network and support for portfolio companies with co-investors.	The insights and impact of the ARAF investments are widely shared to interested audiences. ARAF intends to provide quarterly reports and annual reports per year for the investment period.

E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

Besides the arrangements (e.g. annual performance reports) laid out in Accreditation Master Agreement (AMA), please give a summary of the project/programme specific arrangements for monitoring, reporting and evaluation including a description of the monitoring and reporting system that will be used to assess the climate results of the proposed activity. Please also summarize the types of interim and final evaluations. Describe Accredited Entity (AE) project reporting relationships, including to the National Designated Authority (NDA)/Focal Point and between AE and Executing Entity (EE) as relevant, identifying reporting obligations from the EE to the AE. This should relate to the frequency of

reporting on project indicators, implementation challenges and financial status. Please note that interim and final evaluations are expected to embed an assessment of project/programme's contributions to a paradigm shift and enabling environment using a three-point scale rating. Refer to the guidance note for the summary requirements and factor in additional evaluation /assessment activities under this section accordingly.

The following outlines the reporting schedule that ARAF aims to follow for GCF:

- Fund bi-annual and annual reporting
- Mid project evaluation (Year 6)
- Final evaluation (after completion)

Annual and quarterly reporting:

The ARAF II team plans to monitor the ARAF II Project, adhering to the project Funded Activity Agreement and the Accreditation Master Agreement. Our Team has crafted a comprehensive set of Key Performance Indicators (KPIs) to oversee throughout the Project's duration, ensuring alignment with the outcomes outlined in the Funding Proposal.

ARAF typically secures a board or observer seat in its investee companies, a practice that is expected to continue with ARAF II. This seat affords our representatives access to crucial company information and facilitates contribution to strategic decision-making, ensuring alignment with the fund's objectives, which, in the case of ARAF II, aims to emphasize climate adaptation. Moreover, the Project team plans to assign a dedicated relationship manager to each Investee, tasked with ensuring thorough and appropriate monitoring of Portfolio Companies throughout the investment period. A Relationship Manager from the ARAF team expects to actively engage with senior management and the board of investees, guaranteeing that their business strategy remains aligned with our climate adaptation objectives. An Annual Review of all investee companies is planned to be conducted to assess progress against budgeted financial and impact targets. Subsequently, discussions are expected to be held regarding the following year's objectives and targets, culminating in a formal plan agreed upon with the company's management for achieving them.

ARAF II aims to continue to conduct an annual review, which is expected to culminate from the monthly and quarterly reviews scheduled throughout the year. This comprehensive assessment is expected to evaluate the performance of ARAF's portfolio companies on financial, operational, and social, ESG, and impact metrics. It is anticipated to identify portfolio companies facing significant challenges and those demonstrating superior performance, fostering detailed discussions among the Investment Team members and the IC to strategize how best to support the portfolio companies going forward. Ultimately, this process may inform strategic decisions related to the overall portfolio strategy. Additionally, the ARAF II team intends to monitor the competitive positioning, and ongoing market trends in the industries and geographies where ARAF II's portfolio companies operate, as reported and audited by portfolio companies. The Project plans to report financial, impact, climate and ESG results to various stakeholders annually. Investors expect to receive quarterly and annual reports detailing Project activities, financial statements, ESG, and impact data. Reporting to GCF is planned to also occur via the APR, with reporting requirements established in legal agreements between donors, investors, and the project team. In conjunction with the above-described annual review, the management team intends to conduct a review of ARAF's underlying portfolio investments and make any adjustments deemed necessary to the valuation of each of the investments, including write-downs of any impaired investments. ARAF II plans to also host an annual investor meeting for the investors.

ARAF II also anticipates engaging National Designated Authority (NDAs) quarterly and annually. The team plans to share progress reports with NDAs and seeks to engage with them annually to review project activities and gather feedback. NDA feedback is expected to also support and inform project activities and potentially influence strategy.

Impact reporting:

To track ARAF's progress in achieving its climate adaptation objectives, the ARAF team intends to collaborate with each investee company and the 60 Decibels Lean Data team or similar third party provider to develop and monitor a range of proprietary indicators measuring progress at both ARAF and Project/Programme levels. We plan to initiate various Lean Data projects over the fund's lifespan to evaluate improvements in climate resilience among farmers, including enhanced income levels, income stability, improved yields access to climate information systems, and other relevant metrics. Regular consolidation of data for analysis is expected to enable us to form insights at the ARAF level, tracking progress against objectives and providing timely feedback to investee companies where realignment in their business strategy is necessary. On an annual basis, ARAF II shall track reported impact, with support from independent impact experts to verify impact performance. The verification process is aligned with leading industry standards set for the agriculture sector.

ESG Reporting:

Investors in ARAF II expect to receive an annual report on the ESG performance of its investee companies. ARAF II plans to proactively monitor ESG matters in portfolio companies from the point of investment onward. This monitoring is expected to typically entail (i) tracking the development of ESG risk areas, (ii) evaluating progress made on the ESG Action Plan, and (iii) assessing any changes in the business that could introduce additional ESG risks. The objective of this review is aimed at gauging the ESG performance of portfolio companies, identifying those facing significant challenges in implementing ESG action plans (as well as those showing superior performance), and identifying new ESG risks associated with business models. Insights gathered are expected to facilitate in-depth discussions among the investment team and the Investment Committee to explore the most effective means of supporting portfolio companies moving forward. Additionally, the fund anticipates to conduct both mid-point and completion date reviews of the action plans to evaluate progress in addressing ESG gaps identified during the diligence stage and to identify any additional gaps or initiatives required to address outstanding action items.

Mid-term evaluation

- During the Mid-term evaluation, significant development results are not expected to have been achieved, given that the portfolio will not have reached full maturity. Consequently, the evaluation is expected to primarily focus on assessing the implementation of the investment strategy. This assessment is intended to encompass various aspects, including the number of portfolio companies invested in by the Fund, the catalyzation of private sector capital, climate resilience scores, farmer well-being metrics, and the total number of people reached, and lives impacted.

Final evaluation

For the final evaluations, it is anticipated that the fund will have reached maturity. The end-of-program evaluation of the Fund is expected to adhere to the GCF evaluation policy. An independent evaluation is anticipated to monitor key performance indicators, results, as well as gender and other inclusion targets.



F. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

197. As an investment fund focused on smallholder farmer climate resilience in Africa, targeting innovative, growth-stage businesses in a number of developing markets, ARAF II, and the portfolio companies in which it plans to invest, may face a myriad of challenges.

198.

Selected Risk Factor 1

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Execution Challenges & Risks

- ARAF II expects to invest in a mix of early growth stage, innovative companies. Given their level of maturity, these companies face a number of challenges regarding their business model, company operations, and market dynamics. As a result, these companies may fail or may take longer than anticipated to identify financially viable business models.
- ARAF II will generally seek minority stakes with strong contractual rights and minority investor protections in consortium with other co-investors. As such, ARAF II does not expect to have sole control over the operational activities of its portfolio companies.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ARAF II expects to conduct rigorous due diligence activities prior to investment, consisting of an in-depth analysis of commercial, financial, market, legal and ESG performance. ARAF intends to require mandatory on-site visits for all investments to ensure that the portfolio team can accurately assess high quality investment opportunities and select companies with strong management teams, high quality products, strong brand names and reputation, as well as those complying with all legal and statutory requirements in the regions in which they operate.
- To further reduce the risk of failure, the Fund will not only provide investment capital and targeted Technical Assistance but expects to provide strategic advice and additional resources by obtaining either appointments as a Director or observer on each of the future portfolio companies' Board of Directors, identifying and working with co-investors, providing access to local networks of experts and value-add partners, and offering specific technical assistance programs.
- In addition to hiring a team of investment and sector experts, the Fund intends to set up a robust post investment monitoring and reporting system to monitor and track fund performance. Annual audits are expected to be conducted in accordance with the future Fund's protocols, focusing on high transparency, annual reports, and direct investment oversight by an Investment Committee following international best practices.

Selected Risk Factor 2

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Regulatory Uncertainty

- ARAF II aims to invest in innovative companies in the Agricultural / Agribusiness sectors in its target geographies. Certain value chains and industries tend to attract political attention, leading to unanticipated policy changes, price controls, and new or increased tax rates, all of which can negatively impact the Fund's profitability by creating market distortions that may lead to monopolies or oligopolies, crowding out private companies and deterring investment in the sector.
- ARAF II is also exposed to operational and compliance risks stemming from the processes, people, and systems of the Fund's external service providers or third party contractors.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ARAF II seeks to assess regulatory risk in the markets where it operates and will consult with local regulatory agencies to understand their planning processes and potential for changes. ARAF II intends to also carry out regular regulatory and legislative reviews across its verticals and markets to ensure potential adverse impacts are mitigated. ARAF II aims to also limit investment into specific value chains that are liable to political manipulation and market distortion.
- When engaging third-party contractors, the ARAF II team expects to screen the identification information of each individual and/or entity associated with the agreement. Each search will be reviewed against international sanctions lists, enforcement sources (i.e., civil or criminal offenses, indictments, and convictions), and relevant financial history (i.e., foreclosures, bankruptcies, etc.). Furthermore, to avoid any incidences or appearances of impropriety, the ARAF II team aims to ensure that each of its procurement decisions will be based on the following principles:
 - a) Best value for money: the optimum combination of costs and benefits based on the Fund's needs. Third party contractors are not necessarily selected for the lowest price but based on a balanced judgment of financial (i.e., cost) and non-financial factors (i.e., scope and quality, references, etc.).
 - b) Transparency and integrity: clearly defined processes for fairness to internal and external parties with consistent application.
 - c) Competitive and objective selection: where applicable, standardized evaluation criteria and procedures for impartiality and opportunity for all potential contractors and vendors.

Selected Risk Factor 3

Category	Probability	Impact
Other	Medium	Medium

Description

Please describe the risk to the best of your knowledge at this point in time.

Exit and Valuation Risks

- ARAF II intends to invest in companies in markets which have limited options for liquidity events / exits due to lack of developed financial markets, including lack of well-capitalized private equity and venture capital firms. Many of the countries in which ARAF II seeks to invest exert a level of control on the repatriation of profits from foreign investment.
- Accounting standards in the countries in which ARAF II seeks to invest do not generally correspond to international accounting standards, and national accounting, auditing and financial reporting standards are not yet in place in many target countries. Many portfolio investments will generate revenue that is denominated in foreign currency, and changes to exchange rates may affect the value of the Fund's investments in portfolio companies.

Mitigation Measure(s)		
<i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i>		
<ul style="list-style-type: none"> The ARAF II Investment Team expects to maintain ongoing relationships with potential strategic acquirers of portfolio companies and growth stage investment firms to help improve exit opportunities for Fund investments. ARAF II intends to carefully monitor investments and utilize regional teams to stay abreast of changing markets and company conditions, as well as require its portfolio companies to have annual financial audits to improve transparency of financials and accounting systems. ARAF II will also remain open to utilizing alternative investment structures reflective of market conditions; in addition to investing equity, ARAF II may structure equity-like and self-liquidating instruments with a pre-determined liquidation date to help improve the likelihood of financial exits and offset the unpredictability of markets. 		
Selected Risk Factor 4		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Low</u>
Description		
<i>Please describe the risk to the best of your knowledge at this point in time.</i>		
Human Rights Risks		
<ul style="list-style-type: none"> In Sub-Saharan Africa, there are an estimated 112 million children working long hours and in hazardous conditions in the agricultural sector²⁸⁹, exacerbated by the COVID-19 pandemic and household poverty, as the majority work on family farms to compensate household loss of income or mitigate movement restrictions. There is therefore a risk that the companies ARAF II invests in could be working with smallholder farmers utilizing child labor in their agricultural production activities. 		
Mitigation Measure(s)		
<i>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</i>		
<ul style="list-style-type: none"> It is important to note that due to the expected size and nature of ARAF II's investment portfolio, ARAF II and its investee companies may have limitations in the information they can collect on human rights risks or the influence they can have in agricultural value chains. However, it is imperative that this issue be assessed and addressed to the extent possible. The ARAF II team will take a risk-based approach (as with ARAF I). The team intends to engage its portfolio companies that are either operating in, or sourcing from certain geographies under scrutiny (or other countries associated with human rights abuses) to enhance disclosure and transparency of labor conditions within their supply chains. Specifically: <ul style="list-style-type: none"> ARAF II's investee companies shall undergo ESG due diligence prior to investment as well as annual ESG monitoring. The analysis includes desk-based review, direct engagement with key individuals within the company, and site visits from third party evaluators. The evaluation directly covers aspects of 1) organizational context and geographic footprint to gain a high level sense of the extent to which the company is aware of/integrated with global initiatives to combat Human Rights and responsible supply chains; 2) aligned to core ILO standards on labor; 3) addressing the protection of Human Rights, responsible use of security forces; 		

²⁸⁹ UNICEF. "Child Labour Rises to 160 Million – First Increase in Two Decades." UNICEF, 9 June 2021, www.unicef.org/press-releases/child-labour-rises-160-million-first-increase-two-decades.

prevention of harmful child and forced labor; 4) freedom of association; and 5) ethical sourcing policies and practices; among others.

- The ARAF II team will seek to ensure that investees have effective Employee and Stakeholder Grievance Procedures — including training of staff, clear explanations, and channels on company websites, and in HR Policies; and an anonymous reporting option.
- The ARAF II team will establish procedures to engage with companies on their human rights and labor policies, including support for strengthening supplier auditing and monitoring practices for Companies at risk. Engagement can be in multiple forms: through Board engagement; one-on-one meetings with management; as well as embedding strong requirements in the ESG Action Plans and related monitoring.
- The ARAF II team will report annually on the implementation of the above practices.
- The ARAF II team aims to push for its investee companies to develop strong supply chain traceability protocols, which can help prevent human rights violations.

Selected Risk Factor 5

Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	Select

Description

Please describe the risk to the best of your knowledge at this point in time.

Risk of Conflicts in Fragile States

- Two of the countries of focus for ARAF II – Nigeria and Uganda have received a score of “Alert” or worse on the Fragile States Index²⁹⁰, highlighting the increased risk of conflict in these countries and their governments lack of preparation to deal with the potential conflicts. The index reviews twelve conflict risk indicators including security apparatus, factionalized elites, group grievances, economic decline, uneven economic development, human flight and brain drain, state legitimacy, public service, human rights and rule of law, demographic pressures, refugees and IDPs and external interventions. The other countries of focus score between “Warning” and “High Warning” reflecting different levels of perceived risk by country.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- At the portfolio level, the ARAF II team will seek to ensure country diversification to limit significant exposure to any of the highly fragile countries. However, given the contextual nature of each territory, the team expects to carry out country-based risk assessments which will include both formal and informal political economy factors driving security of the investment; informal power relations and their impact on potential business performance. In investments in newer markets, ARAF II will seek to partner with co-investors with experience navigating these risks in highly fragile countries. Furthermore, the team intends on collaborating with the Risk and Compliance Manager of the AE to conduct on-going analysis of the macro-risks impacting each of the newer markets. The AE has access to several risk-analysis databases specific to these challenging markets and will be monitored on an on-going basis. The teams intends to summarize macro risks for each investment in investment memos and will be shared with the Investment Committee along with strategies to address the risk aligned to the context of the specific investment.

Selected Risk Factor 6

²⁹⁰ “FRAGILE STATES INDEX ANNUAL REPORT 2023.” The Fund for Peace, 14 June 2023.

Category	Probability	Impact
Forex	Medium	Medium
Description		
<p>Please describe the risk to the best of your knowledge at this point in time.</p> <p>Currency Depreciation</p> <ul style="list-style-type: none"> A number of the target countries for ARAF II have been facing runaway depreciation of local currency in recent years, which can impact the dollar value of fund investments and compromise returns. The devaluation of local currencies can directly cause increases in the cost of doing business for portfolio companies that depend on imports in their supply chains or capex requirements. In 2024, double digit depreciation of 14%, 20% and 23% is anticipated in Egypt, Ethiopia, and Nigeria respectively, three of ARAF II's target geographies, while high single digit depreciation of 9% and 8% is anticipated in Kenya and Ghana respectively^{291,292} Given that ARAF II returns will be denominated in USD, the fund will attempt to mitigate this risk (to the extent possible).²⁹³ 		
Mitigation Measure(s)		
<p>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</p> <ul style="list-style-type: none"> ARAF II will attempt diversify its Forex risk by investing in additional African countries beyond those anticipated to face high depreciation of its local currencies. These countries will either face low depreciation or appreciation of their local currencies, namely: Morocco (+1%), Cote d'Ivoire (+2%), Senegal (2%), Uganda (-1%) and Tanzania (-3%), mitigating the effects of currency depreciation in the other 5 target countries³. Furthermore, ARAF II will attempt to help portfolio companies, particularly those heavily dependent on imports for capex requirements or as part of their supply chains, to obtain affordable, local currency denominated debt, mitigating the effects of depreciation on the dollar value of the fund. Finally, where possible, ARAF II will endeavor to invest in companies with a significant export component, eliminating or limiting the mismatch between local currency revenue and dollar funding. 		
Selected Risk Factor 7		
Category	Probability	Impact
Other	Medium	Medium
Description		
<p>Please describe the risk to the best of your knowledge at this point in time.</p> <p>Inflation</p> <ul style="list-style-type: none"> Some of the African countries that ARAF II is targeting are experiencing high inflation, mainly on the back of depreciating local currencies and high oil prices, a trend that is expected to continue through 2024. Egypt, Ethiopia, Ghana and Nigeria are expected to register inflation rates higher than 20% in 2024²⁹⁴. High inflation can substantially reduce buying power, affecting demand and profitability of portfolio companies. High levels of inflation will also likely trigger an increase in interest rates by the Governments of ARAF II's target 		

²⁹¹ Economist Intelligence. *Africa Outlook 2024*. Economist Intelligence - EIU, 30 Oct. 2023. Accessed 11 Apr. 2024.

²⁹² ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

²⁹³ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

²⁹⁴ Economist Intelligence. *Africa Outlook 2024*. Economist Intelligence - EIU, 30 Oct. 2023. Accessed 11 Apr. 2024.

countries, which can further reduce economic activity and reduce the growth of portfolio companies while making it harder to raise capital locally.

- Reduced economic activity in ARAF II's target geographies can impact the valuation and profitability of portfolio companies, making it harder for them to raise growth capital. Additionally, market slowdowns can delay upcoming exits of later stage companies through public markets, secondary transactions and mergers and acquisitions, thereby dragging down fund level returns.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ARAF II will attempt to mitigate against the effects of inflation by investing in companies that have limited import dependence on its supply chain or capex requirements where possible, e.g. sourcing or manufacturing inputs locally, leading to lower cost products.
- Furthermore, even under a high inflation scenario, the average price elasticity of food remains lower in absolute terms as food is a necessary good, thereby mitigating the effects of income loss for ARAF II's portfolio companies relative to other sectors of consumption.

Selected Risk Factor 8

Category	Probability	Impact
<u>Technical and operational</u>	<u>High</u>	<u>Low</u>

Description

Please describe the risk to the best of your knowledge at this point in time.

Single Sector Exposure

- ARAF II will invest in smallholder farmer climate resilience solely through the agriculture sector, leading to exposure to several sector level risks that have the potential to impact the entire investment portfolio.
- Agriculture remains highly vulnerable to weather conditions and water availability. Extreme climate events (such as floods, droughts, outbreaks of pests/diseases and extreme temperatures) can lead to large scale crop failures, causing significant losses for both farmers and investors. The African countries targeted by ARAF II also face serious water scarcity issues, and the agriculture sector remains heavily dependent on the availability of water. The unpredictability of water access (for both irrigated and rain fed farms), combined with overall water scarcity can be a significant risk affecting crop yields and overall profitability for the entire sector.
- In addition, agricultural commodity prices can be highly unpredictable, as they are influenced by global markets and local factors. Fluctuations in prices can in turn affect revenues and profitability of portfolio companies.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

- ARAF II will attempt to mitigate against its single sector risk by diversifying investments across different agricultural value chains within the Fund's different target countries (6 in total). ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries.²⁹⁵
- ARAF II will also attempt to restrict its investment mandate to limit exposure to politically dependent value chains (like milk in Kenya, sugar in Tanzania and maize in Zambia).

²⁹⁵ ARAF II continues to engage with Kenya, Tanzania, Ethiopia, and Senegal in hopes of their potential inclusion amongst the future Fund's target countries

Selected Risk Factor 9		
Category	Probability	Impact
Technical and operational	Low	Medium
Description		
<p>Please describe the risk to the best of your knowledge at this point in time.</p> <p>Concentration Risk</p> <ul style="list-style-type: none"> ARAF II will be investing in a limited number of companies, leading to a concentration of risk. A decline in the value of a significant investment can have a substantial impact on the overall performance of the fund. Additionally, political instability and changes in government can impact business operations, sector growth and profitability. 		
Mitigation Measure(s)		
<p>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</p> <ul style="list-style-type: none"> In addition to a rigorous post investment deal management process, ARAF II may deploy its investments in tranches based on specific conditions precedent. This phased approach will help to manage certain company risks to reduce the exposure to any single company. Follow on capital will only be deployed where positive prospects for performance are high and fund management has a clear line of sight on exit options. 		
Selected Risk Factor 10		
Category	Probability	Impact
Technical and operational	Low	High
Description		
<p>Please describe the risk to the best of your knowledge at this point in time.</p> <p>Fiduciary Compliance (AML / CFT)</p> <ul style="list-style-type: none"> The geographic areas of focus for ARAF II have an elevated risk for funds being misused for money laundering (“ML”) and terrorism financing (“TF”) ML/TF or any other financial misconduct or crime. 		
Mitigation Measure(s)		
<p>Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?</p> <ul style="list-style-type: none"> Both ARAF II and the AE have AML/CFT policies that aim to ensure that ML/TF risks in the processes of fundraising for the LP and deploying future investments are properly identified, monitored, mitigated and reported in order to prevent the LP, governing bodies, and service providers from being misused for ML/TF or any other financial misconduct or crime. The use of any materials and technology procured by the LP is subject to AE’s Code of Ethics which is applicable to everyone associated with the AE, “whether they are employees, consultants, fellows, volunteers, or members of our Board or committees.” The LP will also have a Grievance Policy which can be found in Annex 6 (and which includes provisions on the Fund’s Grievance Redress Mechanism, available on the website). As part of its financial and operational due diligence at the procurement, capital raise, disbursement, or exit stage, the LP will perform Patriot Act searches as part of its standardized background checks. The LP utilizes the LexisNexis Bridger Insights XG5 Compliance Package software to conduct these searches, reviewing +100 watchlists at a time. If the team’s screening process results in a match, the ARAF team will determine whether the result is accurate, involving the AE’s Risk and Compliance Manager and General Counsel as needed. 		

G. GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

199. In the course of conducting an environmental and social impact assessment (ESIA), analyzing ARAF II investing strategies, activities, and pipeline, assessing executing entity capacity, reviewing relevant policies and procedures including Acumen's and GCF's environmental and social policies, and developing the ARAF II Environmental and Social Management System (ESMS), the ARAF team has determined that the project to be environmental and social Category I-2 with mostly environmental and social Category C investments and activities. The executing entity, the ARAF team, intends on leading the project's environmental and social management and monitoring with the support of the AE.
200. Since ARAF I was rated Category C/I-3, Acumen has been re-accredited with GCF and is now able to lead Category B/I-2 projects. The ARAF II team believes that categorizing this project as I-2 can lead to a larger pipeline of companies that can support strong climate resilience benefits for smallholder farmers and climate vulnerable agri-communities. Similar large, pan-African agricultural funds have rated themselves as Category I-2/B due to geographic and sector specific investing opportunities and risks. The ARAF II team believes that much of the pipeline, particularly the innovative financial solutions and digital platform companies, are likely to be Category C investments and there may be several opportunities to invest in Category B companies.
201. Much like ARAF I, ARAF II investments are likely to be E&S Category C, ARAF II expects to make several investments that fit E&S Category B. Business models may have typical characteristics of Category B projects:
- Land and resettlement issues
 - Agroforestry and deforestation issues
 - Manufacturing agricultural products and services
 - Informal labor practices for suppliers
 - ESG readiness

ARAF incorporate ESG consideration across the various stages of the investment and portfolio management process in the following ways:

Screening

202. ARAF II intends to screen and conduct regular ESG due diligence on all ARAF II investment opportunities. Initial screening includes ensuring a company complies with the ARAF II exclusion list and desktop research for any major ongoing litigation or harmful reputational issues.

Initial Due Diligence

203. In Initial Due Diligence, the Deal Team Lead and the ESG Manager will analyze potential ESG risks and financial management and governance risks, based in part on the company's sector, sub-sector and geography, as well as on an initial understanding of the company's operations. Based on these factors, the deal team will rate potential ESG risks as Low, Medium or High. These risks ratings will be presented as part of the Preliminary Investment Memo ("PIM"), and will ultimately serve to guide the team as it prepares its formal diligence plan.

Formal Due Diligence

204. During Formal Due Diligence, the ESG Manager conducts extensive ESG diligence, focusing on areas highlighted from the initial ESG risk evaluation. The ESG diligence is meant to uncover ESG risks, identify potential risk mitigants and/or the lack thereof, as well as evaluate areas for potential ESG improvements. Upon completion of formal ESG diligence, the Portfolio Manager rates each of the ESG risks as Low, Medium or High and come to a conclusion on whether the investment remains appropriate given this assessment. The Portfolio Manager also completes an ESG Action Plan, which outlines steps that the company will take going forward to remedy or mitigate any ESG issues or risks deemed unacceptable. These elements are intended to be presented to the IC in the Investment Memo ("IM").

Environmental and Social Impact Assessments

205. If projects have Category B characteristics, a third-party environmental and social expert with local knowledge is expected to conduct an ESIA (detailed in the ESMS) on the company/project with a public version of the ESIA shared with GCF and on the ARAF website prior to investment. ESIA's are expected to include:

- In depth identification of environmental and social risks using the IFC environmental and social performance standards
- Analysis of community risks and potential grievances
- Analysis of land resettlement or displacement risks
- Analysis of gender and SEAH concerns
- Analysis of environmental and social management of investment
- Gap analysis of E&S risks and E&S capacity
- Mitigant strategy
- Translation into local language

Post Investment

206. In the operational stage (post investment) we will work with the investee company to gauge their capacity to monitor and report on the environment and social safeguards. Together with this, the ARAF portfolio manager will also actively monitor and report, on an annual basis, on the environmental and social safeguards in place, implementation, changes in the environmental and social risks, updates on the status of grievances redressed/outstanding (if any) and ESG action plan updates.

207. ARAF II intends to focus on investing in early stage small & medium enterprises that benefit smallholder farmers and climate vulnerable agricultural communities. The use of technologies in projects funded by ARAF will include software for digital platforms and basic food processing technologies. We will ensure as part of our ESG diligence that the use of these technologies is in line with local environmental regulations and standards. The scope of the projects will initially be local (limited to a sub-region within a country) and we would like to support scale-up of these projects into multiple sub-regions and multiple countries to impact more smallholder farmers.

208. ARAF will not invest in companies that use or permit the use of hazardous agrochemicals and/or participate in activities that lead to deforestation or negatively impact the environment. ARAF will invest only in companies that comply with international and local regulations and standards regarding environmental best practices as well as working conditions.

209. The ARAF and Acumen team has developed an Environmental and Social Management to identify, manage, mitigate, monitor, and report on environmental and social risks and impacts. The ESMS aligns with both Acumen's ESG Policy for GCF-Funded Projects and GCF's revised Environmental and Social Policy.

Scope of E&S assessment

210. The ARAF and Acumen team seek to mitigate harm with ARAF II investing activities. Acumen and ARAF conducted extensive desktop research, engaged in stakeholder outreach, and utilized industry best practices, tools, metrics, and methodologies to develop a comprehensive assessment of ARAF II's environmental and social risks and impacts.

211. Stakeholder engagement included input into project design, market research, project management, climate, gender, and poverty strategies, assessing ARAF II viability, and ensuring ongoing partnership when the project transitions from development to implementation. ARAF engaged with potential investors and donors, pipeline companies, potential partners, industry leaders and experts, industry associations, government entities, regulators, expert consultants, and beneficiaries in designing and developing the project. The ARAF team conducted one on one meetings, group discussions, webinars, and utilized prior 60 decibels customer surveys.

212. ARAF values this important outreach initiative and intends to continue this engagement with stakeholders throughout project development and implementation. The ARAF project team also utilized thorough desktop research to understand specific risks for the project, investees, the pan-African context, and relevant mitigants.

Key Project Level Environmental and Social Risks

213. The project has several project level risks and concerns

- Land use and resettlement: Scaling agricultural enterprises are displacing small landowners. Displaced households, particularly those who are forced to leave without compensation or a land acquisition and resettlement plan, lose significant income. A study that measured displaced versus non-displaced farmers in Ethiopia found that displaced farmers mean income declined by 72%.²⁹⁶
- Water Usage: “Agriculture is the largest consumer of water in sub-Saharan Africa and a rapidly rising population is increasing food demand and water scarcity,” according to the Water Footprint Network. With rainy seasons changing, and increased instances of both flooding, and droughts, ARAF II must carefully consider the implications of investing activity on water.²⁹⁷
- Informal labor in supply chain: According to the ILO, 88.5 per cent of jobs across Africa are in informal labor. 97.9 per cent of agricultural jobs in Africa are informal.²⁹⁸ Suppliers for ARAF II portfolio companies may use informal labor for their farming practices. ARAF intends on diligencing companies for Supplier Code of Conducts, alignment with international human rights standards, and compliance with local labor and employment laws and regulations.
- Deforestation: Agriculture is the leading cause of forest loss in Africa, generating about 75 per cent of Africa’s deforestation. Forests are burned and felled to increase land use for farmers including subsistence farming and industrial agriculture.²⁹⁹ ARAF seeks to invest in agroforestry companies as part of the aggregator pipeline. ARAF II intends to diligence companies for rights to farm in forested areas, agroforestry practices, and commitments to preventing deforestation.
- Biodiversity Loss: Biodiversity loss in Africa causes severe damage to the environment, exacerbates climate change, and makes farmers even more vulnerable. The intensification and expansion of agricultural practices/human-driven land disturbances has directly created biodiversity loss and harmed carbon sequestration.³⁰⁰ The ARAF II ESG diligence includes questions and analysis of potential biodiversity loss and preservation opportunities. Any potential loss should be shared with the IC and loss prevention may be a part of the ESG Action Plan.

ESG Technical Assistance

214. ARAF intends to provide ESG support to portfolio companies to enhance their environmental and social impact, mitigate environmental and social risks, and build organizational capacity. The TA can provide consulting support to help companies create and execute environmental and social action plans, improve internal policies, build new practices, or provide training for staff.

215. ARAF aims to use technical assistance to conduct in-depth analysis of projects with E&S category B characteristics.

Indigenous Peoples

²⁹⁶ Kebede D, Tesfay G, Emanu B. Impact of land acquisition for large-scale agricultural investments on income and asset possession of displaced households in Ethiopia. *Heliyon*. 2021 Dec 8;7(12):e08557. doi: 10.1016/j.heliyon.2021.e08557. PMID: 34950790; PMCID: PMC8671865.

²⁹⁷ Nhemachena C, Nhamo L, Matchaya G, Nhemachena CR, Muchara B, Karuaihe ST, Mpandeli S. Climate Change Impacts on Water and Agriculture Sectors in Southern Africa: Threats and Opportunities for Sustainable Development. *Water*. 2020; 12(10):2673. <https://doi.org/10.3390/w12102673>

²⁹⁸ ILO (2023) https://www.ilo.org/wcmsp5/groups/public/--ed_emp/documents/publication/wcms_792078.pdf

²⁹⁹ Cerutti P, Uehara Dr. TK, Wallace J. Deforestation in Africa. Chatham House. (2023)

<https://www.chathamhouse.org/2023/05/deforestation-africa#:~:text=Agriculture%20is%20the%20largest%20direct,palm%20production%20%E2%80%93%20and%20cattle%20ranching.>

³⁰⁰ Larba Hubert Balima, Blandine Marie Ivette Nacoulma, Philippe Bayen, François N'Guessan Kouamé, Adjima Thiombiano, Agricultural land use reduces plant biodiversity and carbon storage in tropical West African savanna ecosystems: Implications for sustainability, *Global Ecology and Conservation*, Volume 21, 2020, e00875, ISSN 2351-9894, <https://doi.org/10.1016/j.gecco.2019.e00875>. (<https://www.sciencedirect.com/science/article/pii/S2351989419306924>)

216. The program intends to have a webpage on the ARAF website that shares information about the program including the ESMS. We seek to provide guidance on how indigenous communities can request support from the GCF independent Redress Mechanism and/or the GCF Secretariat's indigenous peoples focal point at any stage, including before a claim has been made. Additionally, the team seeks for ARAF II investees to have indigenous peoples' policies that will communicate how GCF can be reached. This is especially important for investees that directly engage with indigenous communities.
217. Acumen, as the AE, and the ARAF II team have reached out to indigenous organizations to learn from them, share the project design, and ask for their input. The team is developing and maintaining a dashboard to identify indigenous communities and track engagement with organizations representing indigenous populations. We intend to report to indigenous organizations about project activity and share insights on climate resilient agricultural practices expanding in areas that have indigenous populations so that they can engage with ARAF II activities.

Stakeholder Engagement

218. The ARAF II team believes that stakeholder engagement is an important component of monitoring activities, sharing lessons, and scaling the impact of ARAF II. As mentioned above, the team has developed a comprehensive stakeholder engagement plan. The team intends on engaging stakeholders on an ongoing basis to both inform programmatic and investing activities as well as to increase awareness of climate resilient impacts across ARAF II. Stakeholders will also have access to the ARAF II complaint's policy (grievance mechanism) at the ARAF website and office.

G.2. Gender assessment and action plan (max. 500 words, approximately 1 page)

EXECUTIVE SUMMARY

219. ARAF II is deeply committed to investing and technical assistance activities promoting gender equity in the African agricultural sector and generating gender impacts across the sector, agri-businesses, and for women and vulnerable farmers. ARAF II intends to expand and scale the successful gender strategy of ARAF I to new geographies, companies, initiatives, and insights.
220. To create a coherent ARAF II gender strategy, the team collaborated with third-party gender experts to develop project and country-level gender assessments. These assessments informed the gender lens investing strategy and the gender action plan that are detailed in Annex 8.
221. The team is conducting extensive stakeholder engagement across ARAF II geographies including meetings with government entities, companies, industry associations, NGOs, and civil society organizations. The ARAF II team continues engaging with local gender experts and civil society organizations on local gender challenges and opportunities that informed our gender lens investing strategy and gender work.

FINDINGS

Sex-disaggregated data

222. Researchers and investors alike have shared a common frustration about a lack of actionable and reliable gender data on the agri-business customer level. This partially stems from the majority of laborers in the agricultural sector working in the informal economy. The other challenge is that many agricultural businesses do not have the gender expertise or awareness to collect sex-disaggregated data. These two challenges have made it difficult for agricultural investors to create trackable outcomes for customer-level impacts.

Barriers for female farmers

223. Female Farmers are disproportionately harmed by climate change. Women are less likely to have access to climate resilient inputs, extension services, training, farming land, technologies, and markets.³⁰¹ Credit access and land rights play large roles in limiting women's livelihoods through agriculture.³⁰²
224. Across Sub Saharan Africa, women farmers face climate vulnerabilities and inequities that are not shared or experienced less amongst their male counterparts. Women do a disproportionate amount of work to the income received compared to their male counterparts. This is especially unfortunate because a majority of women who are working in Sub Saharan Africa are both working in agriculture and the informal economy.³⁰³
225. Social and cultural dynamics across several geographies also mean that women are Women farmers face multiple constraints beyond those of men farmers, including the burden of reproductive roles within the family and community, less access to education and healthcare facilities, and discrimination that can limit access to credit and financial services.
226. Women farmers often work in subsistence-oriented farming that lead to lower yields and smaller profits meaning less ability to invest in their own resilience or scaling their work.³⁰⁴ Research shows women farmers' productivity is artificially constrained; if women had the same access as men to land and other resources, farm yields would increase up to 30% and reduce hunger up to 17%. Researchers also found that women tend to do more domestic work and unpaid labor.³⁰⁵

Barriers for women in agri-businesses

227. ARAF has had the privilege of working with a number of portfolio companies on improving their gender outcomes. ARAF intends to invest in and work with businesses that have a strong commitment to gender equity within their operations and the work they do with customers. ARAF II aims to ensure that each company has a gender action plan that is created in collaboration between ARAF and the portfolio company. We have learned that many companies want support on creating safe and equitable workplaces, improving opportunities for women in the workplace (either hiring more women or upskilling current female staff), reaching more female customers, or collecting better sex-disaggregated data.
228. Data shows that women working in agri-businesses are more likely to be part time or work in vulnerable positions. In emerging economies, women waged employees make less than their male counterparts.

Barriers for female entrepreneurs in agriculture

229. Women entrepreneurs have had difficulty in starting and scaling their agri-businesses in Africa. Accessing finance has been a barrier for many women-led agri-businesses.³⁰⁶ Women also have less opportunities to find startup funding from friends and family. Women entrepreneurs also have different and often smaller networks than their male counterparts, which means they have less access to potential investors and opportunities to learn from counterparts with similar businesses.

ARAF II GENDER STRATEGY

230. ARAF II intends to replicate and scale the successful gender strategy of ARAF I. ARAF intends to positively impact the climate resilience and livelihoods of female farmers and women in climate vulnerable communities, improve gender equity in agri-businesses, and share insights across the sector.
231. ARAF II intends to build a pipeline with a gender lens. Both during fund development and implementation, ARAF II aims to find women entrepreneurs with impactful and scalable businesses. Moreover, the team intends to look

³⁰¹ Dibakoane S, Siyongwana P, Shabalala AN. Vulnerability, impact and adaptation strategies of female farmers to climate variability. *Jamba*. 2022 Sep 15;14(1):1302. doi: 10.4102/jamba.v14i1.1302. PMID: 36246781; PMCID: PMC9558303.

³⁰² UN Women (2019) <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/UN-Women-Policy-brief-11-The-gender-gap-in-agricultural-productivity-in-sub-Saharan-Africa-en.pdf>

³⁰³ ILO (2023) https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_869188.pdf

³⁰⁴ Wilson Center (2022) <https://www.wilsoncenter.org/blog-post/women-smallholder-farmers>

³⁰⁵ World Economic Forum (2018) <https://www.weforum.org/agenda/2018/03/women-farmers-food-production-land-rights/#:~:text=Why%20should%20women%20own%20the,poverty%20from%20the%20bottom%20up.>

³⁰⁶ Value for Women (2023) <https://www.v4w.org/uploads/documents/Insights-Volume-1-Issue-6-Agriculture.pdf>

for businesses that can have a disproportionate impact on female farmers and women in climate vulnerable communities. Technical assistance may also be used to support early stage women-led businesses.

232. ARAF II intends to conduct a gender assessment on all companies who reach the IM stage of due diligence. The gender assessment includes diligence on equitable and safe workplace policies, procedures, and organizational capacity, impacts on female farmers, sex disaggregated data, and a demonstration of commitment to gender equity across the company leadership.
233. Companies approved for investment are then expected to work with ARAF II to either create or align a Gender Action Plan with the ARAF II gender requirements. The Gender Action Plans will ensure that companies commit to safe and equitable workplaces and set gender goals that may amplify their gender impact. Companies are expected to have anti-sexual harassment policies, equal employment policies or provisions, flexible workplans when appropriate, and family leave policies that align with local laws. Additionally, companies are expected to have grievance mechanisms with survivor centered provisions.
234. ARAF II expects to share reporting on gender activities and outcomes on an annual basis. ARAF II intends to collect sex-disaggregated data on company staff and customers annually. The ARAF II team aims to bring gender issues and opportunities to portfolio companies' board meetings. Finally, the team will engage with companies opportunistically on gender-based activities that can improve impact both at the company and customer level.
235. The team intends to share this wholistic approach to gender and the outcomes of our work with relevant stakeholders and investors into ARAF II. We believe that these insights can inform gender lens investing and technical assistance for similar funds.

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

The financial management process is centered on three entities with distinct and complementary responsibilities:

- The Manager, Acumen Resilient Agriculture Fund, LP – with general responsibility for investment management and oversight
- Fund Administrator – responsible for accounting, preparation of financial statements, cash management, notices to investors and compliance with AML/CFT policies for fund investors
- The Accredited Entity, Acumen – responsible for fiduciary oversight as Fund GP and Accredited Entity

Acumen Resilient Agriculture Fund, LP and Acumen have internal policies and procedures in place with regards to financial accounting, auditing, and disbursement of funds. ARAF II is subject to an annual financial audit by an independent external auditor in accordance with internationally recognized financial reporting and auditing standards.

G.4. Disclosure of funding proposal

Note: The Information Disclosure Policy (IDP) provides that the GCF will apply a presumption in favour of disclosure for all information and documents relating to the GCF and its funding activities. Under the IDP, project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Information provided in confidence is one of the exceptions, but this exception should not be applied broadly to an entire document if the document contains specific, segregable portions that can be disclosed without prejudice or harm.

Indicate below whether or not the funding proposal includes confidential information.

No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.

With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:

- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
- redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

H. ANNEXES

H.1. Mandatory annexes

- Annex 1 NDA no-objection letter(s) ([template provided](#))

- Annex 6 E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3):
[\(ESS disclosure form provided\)](#)
 - Environmental and Social Impact Assessment (ESIA) or
 - Environmental and Social Management Plan (ESMP) or
 - Environmental and Social Management System (ESMS)
 - Others (please specify – e.g. Resettlement Action Plan, Resettlement Policy Framework, Indigenous People’s Plan, Land Acquisition Plan, etc.)

- Annex 8 Gender assessment and project/programme-level action plan ([template provided](#))

H.2. Other annexes as applicable

No-Objection letter(s) issued by the national designated authority(ies) or focal point(s)

EEAA
Climate Change Central Dept. (CCCD)

جهاز شئون البيئة
الإدارة المركزية للتغيرات المناخية

To: The Green Climate Fund ("GCF")

Egypt, 31 July 2024

Re: Funding proposal for the GCF by Acumen Fund, Inc. regarding Acumen Resilient Agriculture Fund II

Dear Madam, Sir,

We refer to the programme titled **Acumen Resilient Agriculture Fund II in Egypt** as included in the funding proposal submitted by **Acumen Fund, Inc.** to us on 27 May 2024.

The undersigned is the duly authorized representative of Egyptian Environmental Affairs Agency, the National Designated Authority of Egypt.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

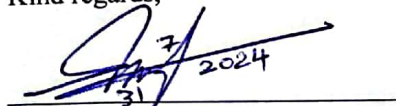
- (a) The government of Egypt has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Egypt;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Eng. Sherif Abd Elrahim
National Focal Point GCF-NDA
Head of Climate Change Central Department
Egyptian Ministry of Environment
Egypt



MINISTRY
OF
FINANCE

P.O.Box MB 40, Ministries, Accra
Digital Address : GA-144-2024

Kindly quote this number and date on all
correspondence

My Ref. No. MOF/ESRD/NREC/GCF/08/24

Your Ref. No.

Date.:

2nd AUGUST 2024

Dear Ms. Mafalda Duarte,

**RE: FUNDING PROPOSAL FOR THE GCF BY ACUMEN FUND REGARDING ACUMEN RESILIENT
AGRICULTURE FUND (ARAF) II PROGRAMME**

We refer to the programme titled Acumen Resilient Agriculture Fund (ARAF) II in Ghana as included in the funding proposal submitted by Acumen Fund to the National Designated Authority Focal Point, Ghana on the 27th May, 2024.

2. The undersigned is the duly authorized representative of the Ministry of Finance, the National Designated Authority/ Focal Point of the Republic of Ghana.
3. Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our **no-objection** to the Acumen Resilient Agriculture Fund II programme as included in the funding proposal.
4. By communicating our no-objection, it is implied that:
 - (a) The Government of Ghana has no-objection to the programme as included in the funding proposal;
 - (b) The ARAF II as included in the funding proposal is in conformity with the national priorities, strategies and plans of the Republic of Ghana; and
 - (c) In accordance with the GCF's environmental and social safeguards, the ARAF II as included in the funding proposal is in conformity with relevant national laws and regulations.
5. We also confirm that our national process for ascertaining no-objection to the ARAF II has been duly followed.
6. We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme
7. We acknowledge that this letter will be made publicly available on the GCF website.
8. Kind regards,


DR. ALHASSAN IDDRISU
DIRECTOR, ESRD/NDA-FOCAL POINT
FOR: MINISTER

THE EXECUTIVE DIRECTOR
GREEN CLIMATE FUND
G-TOWER, 24-4 SONGDO-DONG
YEONSU-GU INCHEON CITY,
REPUBLIC OF KOREA

Cc: The Hon. Minister, MoF
Hon. Minister of State, MoF
Hon. Dep. Ministers, MoF
The Chief Director, MoF Tel: +233 (0) 302 747 197
The Coordinating Director, MoF Email: info@mofep.gov.gh
Website : www.mofep.gov.gh



**MINISTRY OF THE ENVIRONMENT,
OF THE SUSTAINABLE DEVELOPMENT AND
THE ECOLOGICAL TRANSITION**

**DIRECTORATE OF INTERNATIONAL
COOPERATION AND FUNDING
MOBILIZATION**

**NATIONAL DESIGNATED AUTHORITY
FOR THE GREEN CLIMATE FUND**

N^o 000538/MINEDDTE/CAB/DCIMF

REPUBLIC OF COTE D'IVOIRE
Union – Discipline – Work



30 JUL 2024

To:

**Madam Executive Director of the
Green Climate Fund Secretariat
175 Art Center-daero
Yeonsu-gu, Incheon 406-840**

REPUBLIC OF KOREA

**Re: Funding proposal for the GCF by Acumen Fund Inc. regarding Acumen Resilient
Agriculture Fund II**

Dear Madam,

We refer to the program titled **Acumen Resilient Agriculture Fund II** in **Côte d'Ivoire** as included in the funding proposal submitted by Acumen Inc to us on 07 June 2024.

The undersigned is the duly authorized representative of YAO Marcel, the Focal Point of Côte d'Ivoire.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the program as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Côte d'Ivoire has no-objection to the program as included in the funding proposal;
- (b) The program as included in the funding proposal is in conformity with the national priorities, strategies and plans of Côte d'Ivoire;
- (c) In accordance with the GCF's environmental and social safeguards, the program as included in the funding proposal is in conformity with relevant national laws and regulations.

YAO

We also confirm that our national process for ascertaining no-objection to the program as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the program.

Furthermore, the initiative will be housed and monitored by the Directorate of International Cooperation and Funding Mobilization.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



YAO Marcel

Director of International Cooperation and Funding Mobilization

Focal Point

Côte d'Ivoire



Mafalda Duarte
Executive Director
Secretariat of the Green Climate Fund
175 Art Center-daero
Yeonsu-gu, Incheon 406-840
Republic of Korea

05 AOUT 2024

Re: Funding proposal for the GCF by Acumen Fund, Inc. regarding Acumen Resilient Agriculture Fund II

Dear Madam, Sir,

We refer to the programme titled **Acumen Resilient Agriculture Fund II** in **Morocco** as included in the funding proposal submitted by **Acumen Fund, Inc.** to us on 27 May 2024.

The undersigned is the duly authorized representative of Mr Bouzekri RAZI, the Focal Point of Morocco.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- The government of Morocco has no-objection to the programme as included in the funding proposal;
- The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Morocco;
- In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Mr. Bouzekri Razi

Director, GCF National Focal Point of Morocco

Ministry of Energy Transition and Sustainable Development



NATIONAL COUNCIL ON CLIMATE CHANGE

OFFICE OF THE DIRECTOR-GENERAL/CEO

Office Address: No. 14, Visitula Close, Off Panama Street, Maitama Abuja

Email: info@natccc.gov.ng

August 2, 2024

The Green Climate Fund (“GCF”)
Songdo International Business District
175, Art Center-daero
Yeonsu-gu, Incheon 406-840
Republic of Korea

Dear Madam, Sir,

Re: Funding proposal for the GCF by Acumen Fund Inc. regarding Acumen Resilient Agriculture Fund II

We refer to the programme titled Acumen Resilient Agriculture Fund II in Nigeria as included in the funding proposal submitted by Acumen Fund Inc. to us on 27 May 2024.

The undersigned is the duly authorised representative of the National Council on Climate Change (NCCC), of the National Designated Authority of Nigeria.

According to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Nigeria has no-objection to the programme as included in the funding proposal.
- (b) The programme as included in the funding proposal conforms with the national priorities, strategies and plans of Nigeria;
- (c) Per the GCF’s environmental and social safeguards, the programme included in the funding proposal conforms with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the programme's scope.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

ncmaduekwe

Dr Nkiruka Maduekwe

Associate Research Professor of Law

Director-General / Chief Executive Officer

National Council on Climate Change
Nigeria

Telephone: 256 41 4341305/230487
Fax : 256 41 4233524
Email : finance@finance.go.ug
Website : www.finance.go.ug
Plot No. 2-8 Apollo Kagwa Road
In any correspondence on
This subject please quote No. ALD 79/251/03



Ministry of Finance, Planning &
Economic Development,
P.O Box 8147
Kampala, Uganda

11th September 2024

Ms. Mafalda Duarte,
Executive Director,
Secretariat of the Green Climate Fund,
175 Art Center-daero,
Yeonsu-gu, Incheon 22004,
REPUBLIC OF KOREA.

**LETTER OF NO OBJECTION TO THE GREEN CLIMATE FUND FOR
A PROJECT TITLED "ACUMEN RESILIENT AGRICULTURE FUND
II (ARAF II)**

We refer to the above Programme as included in the funding proposal submitted to you by Acumen Resilience Agriculture Fund II (ARAF II) for funding by the Green Climate Fund.

The undersigned is the duly authorized representative of the Ministry of Finance, Planning and Economic Development, the National Designated Authority/focal point of Uganda

Pursuant to the GCF decision B.08/10 and B.13/21, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no objection, it is implied that:

- (a) The Government of the Republic of Uganda has no objection to the Programme as included in the Funding Proposal;
- (b) The Programme as included in the Funding Proposal is in conformity with Uganda's National Priorities, Strategies and Plans of Uganda;

Mission

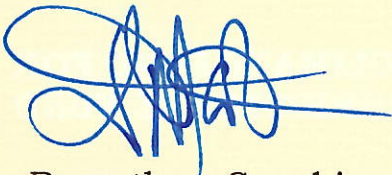
"To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development"

(c) In accordance with the GCF's Environmental and Social Safeguards, the programme as included in the Funding Proposal is in conformity with relevant laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website.



Ramathan Ggoobi

**PERMANENT SECRETARY/ SECRETARY TO THE TREASURY /
NATIONAL DESIGNATED AUTHORITY FOCAL POINT FOR THE
GREEN CLIMATE FUND.**

Copy to: - Hon. Minister of Finance, Planning and Economic
Development

Mission

"To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development"

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	Acumen Resilient Agriculture Fund II
Existence of subproject(s) to be identified after GCF Board approval	Yes
Sector (public or private)	Private
Accredited entity	Acumen Fund, Inc
Environmental and social safeguards (ESS) category	Category I-2
Location – specific location(s) of project or target country or location(s) of programme	Cote d’Ivoire, Egypt, Ghana, Morocco, Nigeria, and Uganda
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Environmental and Social Management System (ESMS) (if applicable)	
Date of disclosure on accredited entity’s website	Thursday, September 12, 2024
Language(s) of disclosure	English, French, Arabic, and Swahili
Explanation on language	These are an/the official languages in each of the target countries.
Link to disclosure	English: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-English.pdf French: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-French.pdf

	<p>Arabic: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-Arabic.pdf</p> <p>Swahili: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-Swahili.pdf</p>
Other link(s)	https://acumencapitalpartners.com/about/
Remarks	An ESMS consistent with the requirements for a category I-2 programme is contained in the “ARAF II Environmental and Social Management System”.
Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), Indigenous Peoples Planning Framework (IPPF) (if applicable)	
Description of report/disclosure on accredited entity’s website	Guidance for Land and Resettlement, Guidance on Indigenous Peoples/ Thursday, September 12, 2024
Language(s) of disclosure	English, French, Arabic, and Swahili
Explanation on language	These are an/the official languages in each of the target countries.
Link to disclosure	<p>English: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-English.pdf</p> <p>French: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-French.pdf</p> <p>Arabic: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-Arabic.pdf</p> <p>Swahili: https://acumencapitalpartners.com/wp-content/uploads/2024/09/Acumen-Resilient-Agriculture-Fund-II-Environmental-and-Social-Management-System-Swahili.pdf</p>
Other link(s)	https://acumencapitalpartners.com/about/
Remarks	The Guidance for Land and Resettlement and the Guidance on Indigenous Peoples are included in the “ARAF II Environmental and Social Management System”.

Disclosure in locations convenient to affected peoples (stakeholders)

Date

Thursday, September 12, 2024

Place

Category B subproject disclosure will take place on GCF website and convenient physical locations in both English and relevant local languages.

The ESMS is also physically available at the ARAF office located at:

Keystone Park, 95 Riverside Dr, Nairobi, Kenya

It is also available at the Acumen East Africa and West Africa offices located at:

3rd Floor, ABC Towers
Waiyaki Way, Westlands,
Nairobi, Kenya

Plot 18 Sikiru Alade Oloko Crescent
Lekki Phase 1, Lagos Nigeria

Nationally Designated Authorities (NDAs) locations:

Cote d'Ivoire

Minister's Office, Ministry of Environment and Sustainable Development

Cite Administrative, Plateau, Tour D, 10eme etage - 20 BP
650 Abidjan 20, Abidjan, Cote d'Ivoire

Egypt

Ministry of Environment
30 Misr Helwan El-Zyrae Road, Maadi
Cairo, Egypt

Ghana

Ministry of Finance
P.O. Box MB 40 Ministries, Accra, Ghana

Morocco

Ministry of Energy Transition and Sustainable Development- Department of Sustainable Development
Rue Abou Marouane Essaadi BP : Rabat Instituts 6208 -
Haut Agdal - Rabat - Maroc

Nigeria

National Council on Climate Change
Headquarters Mabushi, Abuja, Nigeria

Uganda

Ministry of Finance, Planning and Economic Development
2-12 Apollo Kagga Road, Central Division of Kampala,
Uganda

Date of Board meeting in which the FP is intended to be considered

Date of accredited entity's Board meeting	N/A
Date of GCF's Board meeting	Monday, October 21, 2024

Note: This form was prepared by the accredited entity stated above.

*Subsequent to the disclosure of this form to the Board and active observers on 20 September 2024 (KST), the following updates have been made: Kenya and Tanzania have been removed as their NOLs have not been provided by the deadline. Consequently, the addresses for convenient access by affected peoples in Kenya and Tanzania have also been removed. The hard copies of the Environmental and Social Management System (ESMS) remain available at the Acumen Resilient Agriculture Fund (ARAF) office, rather than the KawiSafi office as previously listed - the address itself remains unchanged.

Independent Technical Advisory Panel's assessment of FP252

Proposal name:	Acumen Resilient Agriculture Fund II
Accredited entity:	Acumen Fund, Inc.
Countries:	Côte d'Ivoire, Egypt, Ghana, Morocco, Nigeria and Uganda
Project/programme size:	Medium

I. Assessment of the independent Technical Advisory Panel

1.1 Overview

1. Acumen Resilient Agriculture Fund (ARAF) II is a private sector venture capital fund focused on investments in increasing the resilience of smallholder farmers along the whole agribusiness value chain (AgBVC) – potentially in eight countries located in North Africa (Egypt and Morocco), East Africa (Kenya, Uganda and the United Republic of Tanzania) and West Africa (Côte d'Ivoire, Ghana and Nigeria). However, at the time of the submission of this funding proposal (05 August 2024), only Côte d'Ivoire, Egypt, Ghana and Morocco had issued no-objection letters (NOLs). On 18 September 2024, the Secretariat confirmed that it had received additional NOLs from Nigeria and Uganda.

2. The accredited entity (AE) is Acumen Fund, Inc. The executing entities will be the Acumen Capital Partners Limited Liability Company (LLC) (an LLC formed under the laws of the state of Delaware, United States of America) as the manager, Acumen Resilient Agriculture Capital Investments LLC (also an LLC formed under the laws of Delaware) as the general partner, and ARAF II (established as an Ontario limited partnership under the laws of the province of Ontario, Canada) as the limited partner.

3. ARAF II is expected to impact 4,051,198 direct beneficiaries and 15,799,672 indirect beneficiaries.

4. ARAF II, as a blended facility, seeks to raise a total of USD 132 million, with USD 120 million coming from equity and USD 12 million from grants. GCF is being invited to invest USD 30 million in junior and/or senior equity, and an additional USD 4 million in the form of grant. Other investors will take senior and/or junior equity stakes amounting to USD 90 million, and USD 8 million funding in grants. ARAF II is a scale-up of ARAF (FP078) (ARAF I).¹ ARAF I is a USD 58 million fund that has so far (as of the end of 2023) invested USD 32.5 million of investor capital. It is continuing to make additional investments in 2024 as its investment operations are ongoing.

5. Given the demonstrated success of ARAF I, ARAF II seeks to replicate and scale up the investments using the same strategy and modality (it is a venture, early-growth and growth-stage investment instrument, with an equity and quasi-equity approach) and bigger investment ticket sizes. It aims to cover additional countries (Côte d'Ivoire, Egypt and Morocco) and expand the fund size and number of beneficiaries, which should result in a commensurate rise in impact.

¹ ARAF (FP078) was approved by the GCF Board in 2018 and has been in implementation since 2019.

6. ARAF II will have the same investment strategy as ARAF I, focusing on the same three themes: aggregator platforms, digital platforms and innovative financial solutions.

7. The ARAF II theory of change is that “If the ARAF II fund provides financial and technical support to enable agribusinesses to scale up, improve their services to meet the needs of smallholder farmers and become more inclusive, *THEN* agriculture value chains will become climate-resilient and smallholder farmers will be better equipped to absorb climate-change-related shocks, *BECAUSE* unlocking finance for early-stage companies will enable them to scale up innovative agribusiness models, thereby providing critical services to smallholder farmers and enhancing their livelihoods.”²

1.2 Impact potential

Scale: Medium to high

8. ARAF II will build on the work done by ARAF I to establish a digital ecosystem for the AgBVC that links AgBVC stakeholders locally, regionally and globally. The list of ARAF II investment projects within the six NOL countries shows the potential for a range of start-up companies that will form the building blocks of this digital ecosystem.³ The digital ecosystem will:

- (a) Facilitate the efficient and effective flow of climate- and weather-related data and information, climate-smart knowledge, and climate-friendly agricultural commodities, inputs, technology, advisory, finance, and investments and markets;
- (b) Create an efficient e-commerce system for the trading of agricultural commodities and the provision of inputs;
- (c) Nurture the development of partnerships and the deployment of innovative climate-friendly or climate-smart technologies, business products and services along the AgBVC; and
- (d) Enhance food supply and security; reduce the costs of agricultural inputs and services; increase revenues and profitability; improve the quality of smallholder farmers lives; accelerate the financial inclusion of unbanked, underserved vulnerable farmers and other AgBVC stakeholders (entrepreneurs and micro, small and medium-sized enterprises); and more quickly transition towards a vibrant low-carbon and climate-resilient agricultural sector.

9. It is estimated that, as a result of this digital ecosystem in North, East and West Africa, the originally conceptualized project (operating in eight countries) would reach 19,850,870 million beneficiaries: 4,051,198 direct (approximately 0.5 per cent of the total population) and 15,799,692 indirect (approximately 2.2 per cent of the total population).⁴

10. There is one risk to potential impact, as follows.

11. **Limited monitoring and evaluation time frame.** The ability to monitor and measure the other long-term goal of developmental impacts of the ARAF II (and ARAF I) is a developmental concern. According to the AE, “once the ARAF has fully exited a company, ARAF will no longer have information rights so ongoing monitoring and measurement will not be possible.”⁵ The funding proposal for ARAF II states that adaptation benefits are expected to continue even following exits by ARAF. This expectation is based on the belief that, with investment and operational support from ARAF II and other co-investors, the portfolio companies will become stronger, more sustainable, and better equipped to deliver their goods and services, thereby continuing to benefit smallholder farmers and provide adaptation

² See funding proposal section B.2, para 30

⁴ See funding proposal annex 24b: ARAF II impact methodology guidance document 08082024”.

⁵ AE responses to questions from the iTAP.

advantages.⁶ The resilience and developmental impacts on farmers may be sustained, but there may be no system or mechanism to monitor and measure these impacts or report them to GCF.

12. The funding proposal's impact potential is assessed as medium to high.

1.3 Paradigm shift potential

Scale: Medium to high

13. The creation of a digital infrastructure and ecosystem in the agricultural business value chains triggers the potential for a paradigm shift via innovations in agri production, and processing, finance, logistics, agri commodities and inputs trading, information dissemination, and policy making in these regions.

14. **Alternative finance.** ARAF II will explore investments in financial services that offer inclusive options that are alternatives to traditional cash loans for the smallholder farmers. Among these innovative financing schemes are (a) input finance, which is a mechanism where investment is made in exchange for farmers' produce (e.g. rice),⁷ and (b) the lease-to-own model with pay-as-you-go,⁸. These possibilities demonstrate that interest-rate-bearing loans need not be the default or only mode of financing or lending, especially to small farmers. Some of these financing products and services (e.g. group purchasing or layaway schemes) may not involve interest payments and are thus likely to be acceptable to both non-Muslim and Muslim farmers (Islam forbids interest-bearing loans and speculative insurance products, deeming them to be unethical).

15. **Climate-smart technologies and services.** ARAF II will enable the development and deployment of innovative climate-smart technologies that will help farmers, as well as other AgBVC stakeholders, to leapfrog traditional approaches to production, post-production, logistics and accessing markets. Some of these technologies⁹ are as follows: (a) farmer-centred digital solutions that connect smallholder livestock farmers to source inputs and allow them to directly access markets; (b) drone and satellite imagery in managing, optimizing and monitoring crop cultivation; (c) inputs that increase crop resilience to drought and salinity; (d) energy-efficient cold storage facilities; and (e) continuous cooling without power or sunlight.¹⁰

16. **Access to bundled services.** The digital ecosystem will enable the provision of timely and tailor-made bundled services to meet various needs of farmers along the AgBVC. This will enhance the capacities of farmers and all other AgBVC stakeholders to make climate-informed decisions quickly and easily, potentially accelerating their transition towards adopting climate-smart agriculture along the AgBVC.

17. There are two risks to the paradigm shift potential, as follows.

18. **Insufficient confidence among investors.** If ARAF II is not able to (i) attract private sector investments at significant scale, performs poorly in terms of delivering financial returns, has limited resilience impacts, or has only limited impacts on the sustainable development of investee companies, then this may undermine investors' confidence about investing in these types of climate-smart companies.

19. **Inaccurate perceptions.** Poor performance, underperformance, overpromising, and excess hype of the investee companies' climate-related products and services provided to farmers and other AgBVC stakeholders may undermine the efficacy of a particular product or service, or a bundle of services, thus creating an unwanted perception of the products and services not being fit for purpose.

⁶ AE responses to questions from the iTAP.

⁷ See funding proposal annex X: annex 31 ARAF II draft pipeline GCF FP

⁸ See funding proposal word file annex 7: "Stakeholder minutes of meeting in Ghana".

⁹ See funding proposal annex X: annex 31 ARAF II draft pipeline GCF FP

¹⁰ See funding proposal word file annex 7: "stakeholder engagement meeting minutes".

20. Overall, the paradigm shift potential is medium to high.

1.4 Sustainable development potential

Scale: Medium to high

21. **Sustainable Development Goals (SDGs).** The funding proposal cuts across several of the SDGs. ARAF II will contribute to the achievement of SDG 13 (Climate Action), which is “intrinsically linked to all 16 of the other Goals of the 2030 Agenda for Sustainable Development”.¹¹ ARAF II will also contribute to SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production) and SDG 17 (Partnerships for the Goals).

22. **Economic co-benefits.** The aggregator platforms theme approach enables partnerships along the AgBVC. As presented in the funding proposal’s case studies, the investee companies nurture entrepreneurship, business partnerships, and commercial or trading activities along local and global AgBVCs.¹²

23. Additionally, the use of modern technologies (e.g. drones and satellites) and digital infrastructure facilities and services (e.g. AI-powered precision agricultural platforms for timely personalized crop management and irrigation recommendations, web- and mobile-based business-to-business platforms)¹³ will provide connectivity and facilitate transactions between and among farmers, entrepreneurs, financiers and investors, supporting them to carry out more business activities on the local scale.

24. **Environmental co-benefits.** The advice on climate-smart agriculture will enable knowledge-sharing concerning improved farming approaches (e.g. regenerative farming). Additionally, the investments in climate-smart agriculture and aquaculture (e.g. hydroponics and aquaponics¹⁴) will be cross-cutting climate-smart interventions that can support the decarbonization of AgBVC.

25. **Social co-benefits.** The project’s various potential social co-benefits, which may enhance the socioeconomic conditions of the ARAF II communities and the smallholder farmers involved, are as follows: (a) higher productivity and incomes;¹⁵ (b) improved quality of life (e.g. better health and more quality time for the family or oneself); and (c) increased resilience against climate shocks (e.g. better understanding and application of climate-smart agricultural skills and knowledge,¹⁶ and applications of climate-smart technologies along the AgBVC).

26. **Gender-sensitive development impact.** ARAF II has submitted a gender action plan and a set of gender assessments were reviewed for the four NOL countries (e.g. Côte d’Ivoire, Egypt, Ghana and Morocco). According to the AE, the portfolio companies mainstream and operationalize gender in their investments. ARAF II recognizes the impact of climate change on women, especially in the agricultural sector. ARAF II emphasizes the need for gender assessments in the target companies and requires them to prepare gender action plans as part of their strategies, with gender-disaggregated data that can inform gender-related interventions.¹⁷ However, no sample of a completed gender action plan from an investee company (under ARAF I or ARAF II) is available for review by the iTAP.

¹¹ *Climate Action.* Available at www.un.org/sustainabledevelopment/climate-action.

¹² In funding proposal annex X see the case studies on farmerline and Farmerworks.

¹³ See funding proposal annex X: annex 31 ARAF II draft pipeline GCF FP

¹⁴ See funding proposal annex X: annex 31 ARAF II draft pipeline GCF FP

¹⁵ According to para. 185 of the funding proposal, 80% of farmers report increased productivity and income, and 85% report improved quality of life due to support from ARAF portfolio companies.

¹⁶ According to para. 185(a) of the funding proposal, these include knowledge in areas such as crop diversification, irrigation, soil testing and advanced crop management.

¹⁷ See funding proposal para. 186 and annex 8.

27. There is one risk to sustainable development potential, as follows.
28. **Uncertain SDG impact assessments.** As mentioned in paragraph 11 above, there is a risk that, upon the exit of the investors in the ARAF II investee companies, it will not be possible to effectively monitor and measure the resilience and development impacts on the target farmers and other stakeholders. This may lead to uncertain SDG impact assessments.
29. Overall, the sustainable development potential is assessed as medium to high.

1.5 Needs of the recipient

Scale: Medium

30. **Stakeholder engagement plan.** The funding proposal contains a stakeholder engagement plan for ARAF II¹⁸ with a list of targeted stakeholders¹⁹ to be consulted for each NOL country. The list covers women's groups; non-governmental organizations; academia; the private sector (investors and micro, small and medium-sized enterprises); farmers' cooperatives, associations and unions; governments (e.g. national designated authorities, agriculture ministries and agencies, and development banks); multilateral development financial institutions; and development agencies. This will help with identifying and understanding the needs of recipients at the local level.
31. **Need for bundled solutions.** There is a need to de-risk the AgBVC. The ARAF II approach to bundled products and services directly addresses the activities of smallholder farmers and other AgBVC stakeholders through the provision of climate-smart agriculture advice,²⁰ training (e.g. on soil and crop management) and inputs;²¹ climate-informed weather advisory services; and efficient access to markets using digital-infrastructure-based logistics²² and climate and weather crop insurance services. The integrated and holistic investment strategies of ARAF II directly address these needs.
32. **Needs of the private sector.** From the perspective of the private sector, ARAF II clearly addresses the critical funding requirements of early-stage and growth-stage start-ups that offer viable business models and solutions that could enable smallholder farmers to adapt and become more resilient to climate change. Given that enabling policies and market conditions in these African countries can pose challenges, and given that the climate-vulnerable agricultural sector may be considered a high-risk undertaking, there is a need to proactively crowd in investors into these proposed aggregator platforms and innovative financing solutions and services. ARAF II will enable this to happen.
33. **Alternative finance needs of farmers.** As mentioned in paragraph 14 above, the financing needs of smallholder farmers along the AgBVC is diverse. ARAF II enables innovative and inclusive financing modalities.
34. There are three risks to the needs of the recipient, as follows.

¹⁸ See funding proposal word file annex 7: "ARAF II Stakeholder engagement plan".

¹⁹ See funding proposal excel file annex 7: "Stakeholder engagement list".

²⁰ See funding proposal annex X : annex 31 ARAF II draft pipeline GCF FP. For example, a biotechnology research platform provides farmers with effective and sustainable solutions for better crop production. The company produces a biostimulant that induces resilience in crops against drought and salinity when dosed at only 1–10 mg/hectare.

²¹ See funding proposal annex X : annex 31 ARAF II draft pipeline GCF FP. For example, input providers can determine when and what inputs farmers require on specific portions of farmland, enabling them to communicate this to the farmers. This results in optimization of the inputs and the operating costs of the input provider, and leads to increased productivity for farmers.

²² See funding proposal annex X : annex 31 ARAF II draft pipeline GCF FP. For example, a farmer-centred digital solution that connects smallholder livestock farmers to ready and guaranteed markets and inputs (e.g. maize), or a livestock farm-management mobile application that assists farmers to manage their daily farming activities on their phone.

35. **Needs of local smallholder farmers.** A review of the stakeholder lists and engagement meeting minutes shows that (a) there is limited to no participation of local mandated climate change authorities (e.g. meteorological agencies);²³ (b) questions and discussions around climate change are very limited; (c) the presentation of the 4 NOL countries' climate challenges, financing and agricultural market barriers is general in nature; and (d) while there are some general discussions of the impact of climate change on the agribusiness activities of the private sector and communities, there is little to no in-depth discussion of the context of vulnerability of the target smallholder farmer beneficiaries to specific climate hazards (e.g. drought, floods and storms), the most pressing challenges at the local level, or the farmers' most urgent or highest-priority needs in addressing this climate vulnerability.²⁴ Thus, it is not sufficiently clear whether the smallholder farmers' needs are urgent or important.

36. **Need for more robust local climate change assessments to feed into adaptation measures.** Annex 2 ('Market assessments') of the funding proposal provides limited evidence-based studies, with no clear data on the target farmers' context of vulnerability, on how climate change is currently impacting them or on how it will impact the agricultural sector in the future. There is a need for more comparative assessments of a similar sector to ascertain how climate change is impacting the AgBVC in similar regions. The climate change assessments conducted so far have generally been at the national level, so there is a need for more localized assessments.

37. These localized assessments should inform the baseline of the farmers' context of vulnerability and the existing as well as potential array of climate adaptation measures that must select based on their needs and priorities. Annex 2 of the funding proposal (covering the four original NOL countries: Côte d'Ivoire,²⁵ Egypt, Ghana and Morocco) presents limited information on climate change, the context of vulnerability, or how the identified climate adaptation and resilience measures were selected for these countries.²⁶

38. **Observed limitations of the Agriculture Resilience Investment Screen (ARIS) Toolkit.**²⁷ ARAF II (like ARAF I) will use the ARIS Toolkit to assess the climate resilience of potential investment opportunities (i.e. the investee companies). The ARIS Toolkit is limited in its ability to deliver a robust assessment, as it is more of a rapid assessment tool for use by investment managers looking to invest in a company.

39. According to the funding proposal, the ARIS Toolkit provides a "consistent, rapid and robust methodology for investment managers to assess the climate resilience potential of agribusiness opportunities, and has the capability to (i) Assess climate change and weather risks to a business model in its target location and how the business activity addresses these risks; (ii) Assess the climate vulnerability of the target population and evaluate how a business model addresses those vulnerabilities by building the climate resilience of the community; (iii) Assess potential negative impacts of a business that would exacerbate climate risks and outweigh benefits; (iv) Generate a score for each investment; (v) Allow for comparison between potential investments." The ARIS Toolkit, which serves as the main document of ARAF in assessing the climate potential of an investee's product, services or technology solution, mentions limited sources of authority, and only sources located outside the countries involved.

40. Specifically, the cited authorities on climate-related matters are limited to open data sources. For temperature, fresh-water availability, precipitation, sea level rise, flooding,

²³ See funding proposal excel file annex 7: "Stakeholders engagement List" (e.g. Côte d'Ivoire, Egypt, Ghana and Morocco).

²⁴ See funding proposal word file Annex 7: "Stakeholder Engagement Meeting Minutes" (Côte d'Ivoire, Ghana and Nigeria)

²⁵ The section of funding proposal annex 2 for Côte d'Ivoire only states: "The agricultural industry in Ivory Coast faces negative consequences from climate change such as decreased rainfall, prolonged dry seasons, and increased flooding events which potentially disrupt farming seasons. This emphasizes the need for climate-smart farming methods to increase resistance to climate shocks in the sector."

²⁶ See funding proposal annex 2d: "Ivory Coast market assessment executive summary".

²⁷ See <https://aris.marine.rutgers.edu>.

landslides, and the general climate and development profiles of a country, the ARIS Toolkit relies on the World Bank Climate Change Knowledge Portal.²⁸ For storms, which covers precipitation and hail, the toolkit uses Carbonbrief.org. For wind, it uses Globalwindatlas.info. For seasonal shifts and dust storms, it uses World Soil Information (ISRIC.org). For groundwater availability, flooding and hydrological flows, it uses the World Resources Institute (WRI.org). Also for flooding, and long duration flooding from inland fresh water, it uses the United States of America's National Oceanic and Atmospheric Administration - National Geophysical Data Center (NOAA-NGDC)²⁹ and Global Freshwater Biodiversity Atlas (Atlas.freshwaterbiodiversity.eu). For soil-related issues, it refers to ISRIC.org. However, for fire, pests and diseases, no specific sources are provided, despite the fact that in Ghana, for example, there are major losses to crop commodities from pests.³⁰ Based on the documents submitted, it is not clear whether ARAF II also coordinates with authoritative international organizations such as the World Meteorological Organization, the Food and Agriculture Organization of the United Nations (FAO) or the World Health Organization. From the stakeholder lists for each NOL country, there is no mention of locally mandated authorities on climate, such as the local meteorological agencies. The ARIS Toolkit also mentions a "NEG" analysis for guidance on matters pertaining to (a) infrastructure and the built environment; (b) the ecosystem and ecosystem services; (c) livelihoods of people and communities; (d) food, water and health; and (e) "other", which is not explained³¹.

41. An assessment of the ARIS Toolkit by the iTAP observes the following issues and concerns:
- (a) The target focus of vulnerable sectors is very general, which results in the bundling of all sectors without focusing specifically on the target smallholder farmers – specifically, the ARIS Toolkit asks, "In location of target geography how likely is this type of risk to either become an issue, or to be exacerbated, by climate change?"³²;
 - (b) In the ARIS Toolkit, there is no indication of whether the climate factors that will be assessed in the project area (temperature, storms, etc.) are aligned with the historical and projected trends and based on evidence-based data or information coming from a locally mandated government agency (e.g. meteorological agencies) or other government authorities;
 - (c) The specific context of vulnerability of the smallholder farmers is not adequately captured or clearly described, as can be seen from the question "To what degree would these risks impact the project area?" – the question asked bundles the context of vulnerability of the farmers together with the ecosystems, the built infrastructure and investments in the AgBVC;
 - (d) Under Resilience Benefit Tab³³, while the target sectors are identified separately, the proposed adaptation and resilience measures are generic, and it is not adequately explained how these measures were chosen from an array of other such measures previously identified under existing locality-specific adaptation and resilience plans; and
 - (e) While there is a Winrock verification, there is no reference made to whether this assessment has been reviewed or confirmed by other local climate change experts.
42. Overall, the needs of the recipient are assessed as medium.

²⁸ See <https://climateknowledgeportal.worldbank.org>.

²⁹ NOAA-NGDC is now called NOAA National Centers for Environmental Information (NCEI); it is responsible for preserving, monitoring, assessing, and providing public access to the Nation's treasure of geophysical data and information. Source: <https://www.ngdc.noaa.gov/>

³⁰ See funding proposal annex 2c: "Ghana market assessment".

³¹ See funding proposal annex X – annex 27 ARIS v16 master

³² See funding proposal "climate change and weather risk" of the annex 27 ARIS v16 master.

³³ See funding proposal annex X – annex 27 ARIS v16 master

1.6 Country ownership

Scale: Medium

43. **Credible AE.** Acumen Fund, Inc., manages ARAF I and is perceived to be a strong local partner that can deliver the project's business and social development impacts. As to the climate resilience impacts on the smallholder farmers under ARAF I, an ARAF I case study³⁴ plus GCF evaluation results³⁵ show that ARAF I is delivering the GCF adaptation metric results (e.g. number of beneficiaries, companies invested in, farmers' lives impacted, incomes improved and resilience achieved).

44. As at Q3 2023, ARAF I has invested in 12 companies, reached 983,512 farmers and impacted 4,917,560 lives, and 45 per cent of these farmers have been classified as resilient by virtue of the reported improvements in income, crop yields (among 80 per cent of farmers), quality of life (85 per cent of the farmers) and way of farming (87 per cent of farmers).³⁶ The lessons and experiences gleaned from ARAF I will be carried over to ARAF II; thus, there is a high degree of confidence that similar or even better results can be expected.

45. **Alignment with national climate strategy and priorities.** Similarly to in ARAF I, the investment strategy of ARAF II will be aligned with each country's national adaptation plan³⁷ and other climate change strategies. As an example, Egypt is guided by its National Climate Change Strategy³⁸ and Kenya by its National Climate Change Action Plan.³⁹ ARAF II will maintain direct communication with each country's national designated authority to ensure close alignment and collaboration in these areas. ARAF II will also conduct consumer surveys to gather feedback and share insights with the impact investing community.

46. **Strong private sector interest.** Based on the list of stakeholders met during consultations, there is a strong presence of agribusiness representatives along the AgBVC (e.g. logistics, input suppliers, financiers and investors, early/growth stage companies and technology providers, and farmer associations).⁴⁰

47. There is one risk to country ownership, as follows.

48. Limited stakeholder consultations with farmers and mandated climate authorities in country, and alignment with local adaptation plans and strategies. The local stakeholder consultations of the four original NOL countries (Côte d'Ivoire, Egypt, Ghana and Morocco) show little to no presence of (a) relevant authorities on climate (e.g. meteorological agencies); (b) international development agencies working in the area of climate-smart agriculture (e.g. the FAO); (c) representatives of a diverse base of smallholder farmers (Côte d'Ivoire has no farmer group representations out of 8 listed stakeholders, Egypt has 1 out of 12, Ghana has approximately 5 out of 42 and Morocco has 1 out of 14);⁴¹ or (d) meetings with farmer stakeholders (Côte d'Ivoire and Egypt mention no meetings at all, for Ghana there is one mention of a meeting with the Village Livelihood development, and for Morocco 1 out of 2 stakeholders met were farmers). Additionally, while there is strong coverage of national

³⁴ See funding proposal "ARAF Case Study of December 2023".

³⁵ See GCF Annual Performance Report CY2023 (for projects/programme approved under the PMFs) available at <https://www.greenclimate.fund/document/2023-annual-performance-report-fp078-acumen-resilient-agriculture-fund-araf>.

³⁶ See the funding proposal's case studies (annex X) and GCF Evaluation Report on ARAF.

³⁷ See funding proposal para. 181.

³⁸ *Egypt National Climate Change Strategy (NCCS) 2050*. Available at <https://climate-laws.org/documents/egypt-national-climate-change-strategy-nccs-2050-8bfc>.

³⁹ *National Climate Change Action Plan (NCCAP) 2018 - 2022*. Available at <https://leap.unep.org/en/countries/ke/national-legislation/national-climate-change-action-plan-nccap-2018-2022>.

⁴⁰ See funding proposal excel file: annex 7 "Stakeholders engagement List" (e.g. Côte d'Ivoire, Egypt, Ghana and Morocco) and word file Annex 7: "Stakeholder Engagement Meeting Minutes"

⁴¹ See funding proposal excel file: annex 7 "Stakeholders engagement List" (e.g. Côte d'Ivoire, Egypt, Ghana and Morocco) and word file Annex 7: "Stakeholder Engagement Meeting Minutes"

adaptation plans and other climate change strategies pertaining to the national level, there is little mention made of local adaptation initiatives or of climate adaptation measures at the farm or community level.

49. Country ownership is assessed as medium.

1.7 Efficiency and effectiveness

Scale: Medium to high

50. **Effective de-risking scheme.** As proposed, the GCF USD 30 million junior and/or senior equity, which will act as first-loss capital, will attract USD 90 million of senior equity (3× leverage). Additionally, the GCF grant of up to USD 4 million will be matched by another USD 8 million in funding from other investors (2× leverage).

51. **Efficient and effective allocation and use of the ARAF II technical assistance fund (TAF).** As per the AE, the ARAF II TAF will amount to “10 per cent of the targeted fund size of USD 120 million” ; this is very much aligned with industry benchmarks.⁴² Application of the TAF will be guided by the lessons learned from ARAF I. This technical support will focus on outsourcing expertise to conduct activities in support of climate adaptation and gender initiatives of the investee companies and of the target smallholder farmer beneficiaries of these investee companies,⁴³ and other relevant business operational needs of the target investee companies (e.g. business systems and analyses).

52. **Target internal rate of return (IRR).** According to the AE,⁴⁴ ARAF II is confident that it can deliver the projected financial returns based on the track record of ARAF I.

53. There are six risks to effectiveness and efficiency, as follows.

54. **Monitoring and measurement.** As mentioned in paragraph 11 above, the inability to monitor and measure the other long-term goals of resilience and the developmental impacts of ARAF II (and ARAF I) following the exit of the investors in the ARAF II investee companies is a concern.

55. **Risk of limited climate change capacity.** While the investment management component of ARAF II has demonstrated expertise through its capable in-house team, there is perceived weakness by iTAP in the climate assessment process and governance system. The funding proposal states that ARAF II will have an in-house climate change expert to ensure both appropriate screening of projects and regular monitoring and evaluation.⁴⁵ As part of the decision-making process, ARAF II will also have an independent panel of climate experts to review ARIS Toolkit results and make recommendations to the ARAF II investment committee before approval of any transactions. However, the proposed budget for the in-house climate expert seems to be for a junior staff member; the allotted compensation during the investment period averages around 3 per cent of the total budget.⁴⁶ Moreover, under proposed budget activity 1.1, there is no mention of a climate specialist as part of the team, which leads to the assumption that specialized climate expertise is already present in the positions of partners, directors, associate directors and investment associates. There is also no mention of a mitigation specialist, which could be important, considering (a) that there are mitigation components in some projects⁴⁷ under ARAF I and ARAF II, (b) that the assessment and/or monetization of greenhouse gases is mentioned in at least one of the pipeline projects, and (c) that some of the investee companies will have cross-cutting climate risks and opportunities that need to be properly assessed. Additionally, no clear or documented local partnerships have

⁴² See funding proposal para. 136.

⁴³ See funding proposal para. 137.

⁴⁴ See funding proposal annex 32: “Budget and fund model”.

⁴⁵ See funding proposal annex 21 ARAF II operations manual draft.

⁴⁶ See funding proposal annex 4: “GCF budget”.

⁴⁷ See funding proposal annex X: annex 31 ARAF II draft pipeline GCF FP. (e.g. company no. 60).

been formed with authorities on climate and/or agriculture (e.g. meteorological agencies or development agencies such as the FAO) to support the climate / environmental, social and governance (ESG) analyst. All these observations pose a risk and concern that a generalist junior climate analyst (in addition to being the ESG specialist) may only have limited knowledge, experience as well as quality time allocated for climate assessments, and therefore be insufficiently equipped to assess, present on, discuss, or debate potential risks and issues in the results of a climate assessment produced by the consultants and/or the open-source climate data sources.⁴⁸ Additionally, potential issues, challenges, pros and cons of an investee climate product/service intervention to address local climate challenges may not be articulated well enough to the investment committee.

56. **Limited climate assessments.** As mentioned (see para. 38 above), ARAF II will use the ARIS Toolkit to assess the climate risks of the target sector and of farmer end users of the investee companies. However, the iTAP is of the opinion that the ARIS Toolkit may not fully capture the full context of vulnerability of the target farmers specifically. The ARIS Toolkit is mainly centred around investment management, products and services. As it is a rapid assessment tool, there is the risk it will propose a climate product, service or piece of advice that does not address the priority needs of local smallholder farmers, taking into account the array of other adaptation measures that are available in the country through other development partners or government. The “List sheet”⁴⁹, which provides a list of climate impacts and proposed adaptation solutions, does not explain how these proposed adaptation measures were selected, nor how they compare to a particular baseline in the project area.

57. **Limited questions of the phone based survey.** The funding proposal contains the results of a survey carried out by the impact measurement company 60 Decibels⁵⁰. This survey may oversimplify the climate change issues being experienced by the target end user farmers.⁵¹ There is a risk that the survey questions on climate have captured data only on sudden disasters and neglected slow-onset climate change effects, which may be increasing in frequency and intensity over the medium to long term. The questions also do not ask whether the end user farmers have acquired a combination of climate agricultural skills, knowledge or adaptation measures longer than the prescribed 12 month timeframe; this is significant given that there may have been various climate-smart agricultural capacity-building programmes (e.g. farmer field schools, which are an initiative of the FAO and the International Fund for Agricultural Development). Because these types of questions are lacking, only a limited perspective is available on whether there are other factors (extending beyond one year) that may have had an impact on farmers’ productivity, improved their incomes or given them a better overall quality of life. The adoption of modern or new climate-smart skills and practices, moving beyond traditional approaches, is a gradual and long-term process. The assumption that farmers experienced transformations entirely as a result of the investees’ technology may not be correct.

58. **Need for climate impact metrics for participation in the carry.** The proposed management agreement for ARAF II includes a standard hurdle rate and carry structure. The iTAP commends the inclusion of both financial targets and impact metrics as triggers for the general partner’s participation in the carry. However, the current impact metrics are primarily focused on broader sustainable development goals (e.g. relating to livelihoods and individuals reached) that are somewhat tangential to the climate mitigation and adaptation outcomes that GCF funding is intended to support. We recommend that the Secretariat collaborates with the

⁴⁸ See funding proposal annex X – annex 27 ARIS v16 master

⁴⁹ See funding proposal annex X – annex 27 ARIS v16 master

⁵⁰ 60 Decibels is a global, tech-enabled Impact measurement company that brings speed and scalability to social Impact measurement and customer insights. See funding proposal annex X climate resilient toolkit sample for SunCulture.

⁵¹ See funding proposal annex X climate resilient toolkit sample for SunCulture

AE to identify and incorporate climate-specific metrics into the impact criteria that would trigger a carry pay-out.

59. **Need for more evidence-based data on fund performance.** This funding proposal builds on a previous ARAF programme (FP078) operated by the AE. In such cases, the iTAP assessment would significantly benefit from the Secretariat's evaluation of the earlier phase of the programme. We believe it is good practice for the Secretariat to assess the performance of initial programmes before submitting follow-on funding proposals. This would serve to (a) provide a more data-driven basis for evaluating the new proposal; (b) prevent entities from prematurely seeking additional funding before challenges in deployment, mobilization or impact of the initial funding are fully understood; and (c) ensure that lessons learned from earlier initiatives are effectively incorporated into the new proposal. While we have no specific concerns in this instance, we acknowledge that the lack of available data prevents us from making a meaningful comparison between the current request and past results.

60. Given the above, efficiency and effectiveness are rated as medium to high.

II. Overall remarks from the independent Technical Advisory Panel

61. The iTAP recommends this funding proposal for approval by the Board.

62. To further strengthen the submitted funding proposal and address the abovementioned issues and challenges of the ARAF II investment, the following recommendations are presented to the AE for serious consideration:

- (a) Seek to incorporate a climate impact metric as discussed in paragraph 58 above;
- (b) Expand the number and diversity of consultations with smallholder farmers in each of the NOL countries to address issues raised in paragraphs 35, 36, 41(i), 41(iii), 41(iv) and 48 above;
- (c) Strengthen the ARIS Toolkit by integrating more comprehensive climate risk assessments in support of its results, including context on the vulnerability of farmers and proposed adaptation and/or resilience measures to address issues raised in paragraphs 35, 36, 38, 41, 55 and 56 above;
- (d) Explore ways to strengthen the survey methodology, going beyond phone-based surveys to gather more project-level data and information, enabling ARAF II to more effectively track, monitor, evaluate and report results (including potential collaboration with technology companies working in data and information management) to address issues raised in paragraphs 57 and 59 above;
- (e) Expand the questions in the survey to include the following matters: climate-smart agricultural capacity-building workshops attended by smallholder farmers; other climate-smart agricultural adaptation and/or mitigation measures being implemented in the regions or project areas; presence of other development agencies working in the same sector or subsectors; losses and damages experienced by farmers (assets, income, crops, etc.); and access to formal and informal financing of farmers to address the issues raised in paragraph 57 above;
- (f) Utilize lean data approaches to include medium- to long-term data and information enabling the identification of historical and projected climate challenges affecting the sector, including rapid- and slow-onset events, cooperating with local climate change authorities in each country to address the issues raised in paragraph 57 above;
- (g) Consider forming local partnerships involving Acumen Fund, Inc., national designated authorities and in-country centres of excellence to provide guidance on climate assessments, and explore parallel and continued monitoring of adaptation and resilience

metrics on the smallholder farmers even beyond the exit of ARAF II to address the issues raised in paragraphs 11, 28, 35, 36, 41(v), 48, 55 and 56 above; and

- (h) Include in the local stakeholder consultations;
 - (i) A discussion between and among the AE, relevant stakeholders (i.e. local farmers' organizations as well as government agencies and planners) and an independent GCF evaluation unit on how to reasonably sustain monitoring of the project's resilience and development impacts for the smallholder farmer community or district-level governments upon the exit of ARAF II from investments; and
 - (ii) Explore means by which to provide budget for the monitoring, reporting and verification of resilience impacts on the target farmer beneficiaries (as well as greenhouse gas emissions avoided or removed where relevant) to address the issues raised in paragraphs 11, 19, 28, 54 and 59 above.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (FP252)

Proposal name:	Acumen Resilient Agriculture Fund
Accredited entity:	Acumen Fund, Inc
Country/(ies):	Côte d'Ivoire, Egypt, Ghana, Morocco, Nigeria and Uganda
Project/Programme size:	Medium

Impact potential

The iTAP's medium to high rating of the program's impact potential is noted. As captured in the commentary, ARAF II intends to continue along with the work done by ARAF I and anticipates that its investments will help companies to deploy and scale solutions that address several of the bottlenecks along the AgBVC. Specifically, providing information to farmers, including weather-related data and climate-smart farming knowledge; efficiently connecting farmers to market to sidestep the several layers of middlemen that capture some of the value that farmers create, leading the way for better sales prices for farmers; deploying innovative technologies, including solar irrigation systems or rural-based supply chain distribution mechanism for poultry that help farmers increase and diversify their incomes. The aim of ARAF's investments into platform businesses is to help smallholder farmers improve their productivity / yields, income and livelihoods. We acknowledge the observation around ARAF II's limited ability to continue to monitor the impact of its investments following its exit from the company and would like to highlight the following considerations:

- the smallholder farmers who engage with investees are paid suppliers or paying customers, and support of smallholder farmers is integral to the business models. The expectation is that companies form mutually beneficial relationships with the farmers that they engage with, such that the company's performance is tied to the progress of the farmers they work with – ARAF screens for this intentionality towards farmers from the beginning of the investment evaluation and continues to reinforce this with companies during the holding period. A successful company that enables investor exit is sustainably serving those suppliers and customers, and it is a plausible assumption that such sustainability, service and impact are inter-linked;
- given a 6-year investment period and a 5-7 year holding period, it is envisaged that majority of the exits will occur within the last few years of the project lifecycle, and so we expect to be in a position to report against impact for essentially the whole term of the project; and
- there are resourcing costs associated with ongoing monitoring that will necessarily taper and, at project term, no longer be available, to our M&E teams or our past investees.

Paradigm shift potential

The iTAP's medium to high rating of the program's paradigm shifting potential is noted. As highlighted in the commentary, ARAF II has the potential to result in increased access to inputs; information, including early warning systems; climate-smart production methods and technologies; innovative financial products for smallholder farmers – packaged as bundled solutions to make them more impactful to smallholder farmers. We acknowledge the iTAP's

observation that the performance of ARAF II, and other similar funds, and their investees could have implications on investor confidence around the financial and climate benefits of investing in these types of agribusinesses in Africa. This understanding guides ARAF II's investment strategy, pipeline building, transaction policies, transaction structuring, post-investment management and support; monitoring; and reporting towards providing the best chance of success for the fund and its investment strategy.

Sustainable development potential

The iTAP's medium to high rating of the program's sustainable development potential is noted. We are encouraged by the iTAP's recognition of ARAF II's potential to contribute across several SDGs including SDG 13 (Climate Action), SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production) and SDG 17 (Partnerships for the Goals). Additionally, ARAF II is recognized as having the potential to deliver economic co-benefits, environmental co-benefits, social co-benefits and gender-sensitive development impact. We would like to clarify that as part of ARAF's ESG due diligence, a Gender Action Plan will be created for each investee company.

Needs of the recipient

We note the iTAP's medium rating of the program's ability to address the needs of recipients. We appreciate the recognition of ARAF's efforts to engage with smallholder farmers in our investment regions, which we consistently do both pre- and post- investment; and to engage with key stakeholders. ARAF II will seek to implement the iTAP's recommendation for further and deeper engagement with stakeholders, where plausible. We also appreciate the iTAP's alignment with, and recognition of the effectiveness of ARAF's bundled solutions strategy; the importance of ARAF II's mandate to private sector actors in our target industry and geographies; and the critical need to design and implement innovative alternative financing solutions for smallholder farmers, which ARAF I companies have done considerably well.

We note the risks observed around our ARIS tool, and would like to provide the following clarifications:

- ARAF assesses additional risks not included in the reference lists from other online sources. For instance, fire risks from are assessed from Think Hazard (<https://thinkhazard.org/en/>) while pest and disease risks are assessed from country specific published research, such as (<https://www.kefri.org/assets/questionnaire/ipm.pdf>). This is because there are no live in-country databases/trackers for agricultural pests and diseases in our target geographies. The Fund also considers information from other international organizations such as FAO (see the 'Resilience Benefit module, question 4.1, and 4.6), National Institutes of Health (see the 'Resilience Benefit module, question 2.4), and International Food Policy Research Institute (see the 'Resilience Benefit module, question 4.8).
- ARAF uses the following open-source data sources for climate risk projections, World Bank Climate Change Knowledge Portal, Carbonbrief.org., Globalwindatlas.info, World Soil Information (ISRIC.org), World Resources Institute (WRI.org), Think Hazard, given the reliability and validity of these data sources. While the Fund would appreciate the use of weather information from local government authorities, these are not readily available, especially for projections. For instance, the latest monthly forecast from the Kenya Meteorological Department and Ghana Meteorological Agency only covers period up to September 2024¹. This has informed the reliance of international weather resources, which provide more consistent and robust historical and projected weather information.

¹ <https://meteo.go.ke/forecast/monthly-forecast>, <https://www.meteo.gov.gh/>

- Due to their vulnerability and current farming practices, the vulnerability of ecosystems and infrastructure are often experienced by smallholder farmers. For this reason, the tool’s ‘Resilience benefit’ module assesses the current state of various GCF Adaptation Indicators Results Areas at the target location and how the project will contribute towards their improvement. The tool can therefore assess the climate vulnerability of farmers together with the ecosystem and the built infrastructure; their current state; and how the project will contribute towards improving their climate resilience, and consequently, the climate resilience of smallholder farmers.

Country ownership

We acknowledge the medium rating for country ownership, reflecting the credible role of Acumen Fund, Inc. as a local partner and delivering significant business and social development impacts. As highlighted in the commentary, ARAF I has invested in companies that have shown notable improvements in income, crop yields, quality of life, and farming practices for smallholder farmers. The successful lessons from ARAF I are expected to carry over to ARAF II, instilling confidence in achieving similar or improved results, additionally, the lessons learned from ARAF I have been utilized in the design of ARAF II.

ARAF II’s investment strategy aligns closely with each country’s NDC’s, national adaptation plans and government climate adaptation strategies. Ongoing planned communication with national designated authorities and in-country engagement will ensure collaboration, alongside consumer surveys to gather feedback for the impact investing community. Further, senior members of the program team are regularly in the region, enabling engagement across the spectrum of stakeholders.

Efficiency and effectiveness

We acknowledge the medium rating of the program’s efficiency and effectiveness, particularly highlighting ARAF I’s strong track record and lessons learned. With the support of GCF’s catalytic de-risking funding, ARAF II seeks to generate significant adaptation benefits by attracting other investors. The Technical Assistance Fund is designed to align with industry standards and will focus on climate adaptation and gender initiatives. We note your concerns on the limits of available resourcing, tools and data, though feel confident in the design and implementation of the project toward achieving the desired impacts. We further note your commendation of our impact hurdles for carry, while also suggesting we create additional climate hurdles to the standard carry structure. We note that as an adaption fund, lives impacted is the key measure of climate resilience. We also note that the impact hurdle is a unique feature across the pooled vehicle landscape, but common in the AE’s sponsored funds, and we believe such hurdle needs to be simple and easy to measure if it is to be credibly instituted. This metric is simple and easy to measure, and ties to the impact hurdles of our other funds for comparability and consistency, and alignment with the AE’s mission. There is also alignment with a number of climate investors, who are deeply interested in our impact that the current metrics adequately captures climate impact metrics.

Overall remarks from the independent Technical Advisory Panel:

We greatly appreciate the iTAP’s feedback and look forward to the opportunity for continued partnership with GCF. We are pleased to note alignment with the iTAP on the desire for further stakeholder engagement and are pleased to report that preparations are underway for a 3-day workshop in November between Acumen’s funds and the NDAs from our investing geographies. This workshop is intended to provide an avenue for in-depth engagement with the NDAs, and it is our intention to introduce other similar events to facilitate continuous dialogue and relationship building with the NDAs. ARAF II also intends to engage other local stakeholders including NGOs, research partners and local governments on how to improve

the climate resilience of farmers in line with each country's NAP. This engagement is part of our stakeholder engagement plan.

Additionally, ARAF II plans to continue to engage with farmers in its investment geographies, including during commercial due diligence, as well as organized field visits, which help the Fund to gather insights directly from smallholder farmers towards improving its understanding of the impact of climate change and the various intervention on smallholder farmers' productivity and livelihoods.

We refer to the body of our response regarding certain other recommendations of the iTAP. We would like to provide additional clarity on a few of the recommendations around our selected tools:

- (a) ARAF II acknowledges that, as with any tool, there is bound to be some limitation(s), including surveys; however, we note the objective of the tool is to obtain responses and feedback, and there are practicalities of various constraints, such as the time and attention of farmers and thus the need to optimize the question set; and time and cost of implementation- we believe that from a cost-effectiveness standpoint (vs. door-to-door visits), surveys are our most viable option for obtaining direct feedback from smallholder farmers on the effectiveness of ARAF II's portfolio companies' solutions. This notwithstanding, the impact surveys already ask farmers questions around capacity building and trainings, as well as whether there have been adverse climate events and what coping mechanisms they utilized, i.e. insurance, sale of assets, etc. The impact surveys are focused on attribution, so the questions are specifically geared towards understanding the impact of ARAF's portfolio companies on smallholder farmers.

Farmers in our region will be limited in utilizing technology reporting solutions, however, 60DB does utilize data management tools in monitoring, tracking, evaluating and reporting the results of the survey once they have obtained the information from farmers through the telephone surveys.

- (b) Regarding the ARIS observations, we query if questions have been viewed in isolation, which may have the effect of limiting the true extent of the information we are able to capture when utilizing in the context of subsequent questions.
- (i) The ARIS tool was created using the GCF Results Measurement Framework, particularly the Adaptation Impact Indicators, as a foundation. The need for a consistent evaluation approach across all projects resulted in a uniform set of indicators as opposed to a unique set of indicators for each country based on their specific adaptation and resilience plans. Additionally, we have not seen inconsistencies between the measures in the ARIS tool and any of the country specific adaptation and resilience plans.
- (ii) The observation that the results of the ARIS tool are reviewed and verified by Winrock is accurate. We believe in Winrock's extensive experience, expertise and capabilities in agriculture and climate. This assurance is based on: Winrock International's portfolio of more than 100 agriculture, environment and social development projects across over 40 countries. Additionally, Winrock has extensive on-the-ground experience in Asia, Africa and the Americas, working closely with communities and other partners to design evidence-based solutions to some of the world's most complex problems. Finally, the Institution has decades of experience in carbon capture, clean



energy, ecosystem services, forestry and resilient agriculture around the world².

We would be happy to engage further with the Secretariat to explain the decisions around our selection and the appropriateness of the above tools.

² <https://winrock.org/wp-content/uploads/2016/02/Winrock-ARW-Brief-2023.pdf>

Gender Assessments for Acumen Resilient Agriculture Fun II

ARAF II Côte d’Ivoire Gender Assessment

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

Côte d'Ivoire is located in West Africa along the Gulf of Guinea, with the Atlantic Ocean running along its southern coast. It is bordered by Liberia, Guinea, Mali, Burkina Faso, and Ghana.¹ Côte d'Ivoire has a population of 29.6 million² of whom 48% are female and 52% male in 2024.³ While 53% of the population was urban⁴, and 47.8% lived in rural areas⁵. The country boasts a large youth population with 41% of the population aged between 0-14, 57% aged between 15-64 and only 2% aged 65% and older⁶.

Côte d'Ivoire is the largest economy in the West African Economic and Monetary Union and acts as a regional economic hub and host country for many nationals in the region. It has a significant manufacturing sector and is the world's top exporter of cocoa and raw cashew nuts and a net exporter of oil⁷. The GDP of Côte d'Ivoire was \$70.02 Billion in 2022, or \$2,486 per capita, having grown 6.7% in the prior year⁸ and the World Bank highlights that Côte d'Ivoire is experiencing one of the fastest sustained economic growth rates in Sub-Saharan Africa in over a decade⁹. Poverty is estimated at 9.7% of the population (rate of \$2.15 per day, international poverty line)¹⁰. According to UN Women data, 24.1% of employed women over the age of 15 are below the international poverty line, compared to 19.8% of men.¹¹ With a Human Development Index (HDI) of 0.534, it ranks 'low in the human development category' at 166/193 countries and territories¹².

According to UN Women, Côte d'Ivoire's dedication to gender equality and women's empowerment is evident through the ratification of several key international and regional agreements¹³. These include instruments that specifically address women's rights, such as the Protocol on Women's Rights within the African Charter, and broader human rights conventions like CEDAW¹⁴. Additionally, their commitment extends to the goals outlined in the Beijing Declaration and Platform for Action, and the UN Security Council Resolutions focused on Women, Peace and Security¹⁵. In terms of the legal status of women, Côte d'Ivoire's commitment to gender equality took a legal step forward in 2016 with the adoption of a constitution guaranteeing equal rights and opportunities, extending to the labour market¹⁶. Furthermore, in 2019, a law stating that all political parties must include at least 30% of women in their list of candidates for elected assemblies, was adopted by the Côte d'Ivoire

¹ [World Bank Group, 2021](#)

² [UNFPA, 2024](#)

³ [UN Women, 2024](#)

⁴ [World Bank, 2022](#)

⁵ [World Bank, 2022](#)

⁶ [UNFPA 2024 World Population Dashboard Cote d'Ivoire, 2024](#)

⁷ [The World Bank in Cote d'Ivoire, 2023](#)

⁸ [World Bank Open Data, 2021](#)

⁹ [The World Bank in Cote d'Ivoire, 2023](#)

¹⁰ [World Bank Open Data, 2021](#)

¹¹ [UN Women, 2020](#)

¹² [United Nations Development Programme, Human Development Report 2022, Cote d'Ivoire](#)

¹³ [UN Women, 2024](#)

¹⁴ [UN Women, 2024](#)

¹⁵ [UN Women, 2024](#)

¹⁶ [UN Women, 2024](#)

parliament¹⁷. However, regardless of these commitments, there are still challenges that limit progress towards gender equality¹⁸. The World Economic Forum’s Gender Gap Report places Côte d’Ivoire as the 122nd country amongst the 146 countries that it has assessed as part of the research, with a score of 0.650¹⁹.

1. Health data and analysis

i. What is the maternal mortality rate, infant mortality rate, and life expectancy (disaggregated by sex)?

As of 2020, 480 women die per 100,000 live births due to pregnancy-related causes, which is slightly better than the regional average for Sub-Saharan Africa at 536 deaths per 100,000 live births²⁰. The World Health Organization (2023)²¹ categorizes Côte d’Ivoire as having a high/moderate Maternal Mortality Ratio (MMR) alongside other West African countries like Ghana, Senegal, and Gambia. The MMR in Côte d’Ivoire has remained stagnant over the last 20 years. The mortality rate for infants (per 1,000 live births) in Côte d’Ivoire is 56²². The adolescent birth rate for girls aged between 15-19, was 96 per 1,000 girls in 2024²³. This has reduced from 120 births per 1,000 girls in 2010 and is similar to the adolescent fertility rate in Sub-Saharan Africa which is 100 births per 1,000 women ages 15-19²⁴.

As of 2024, life expectancy in Côte d’Ivoire is 60.5 years, with the life expectancy for women being 62 years, and 59 years for men²⁵

Maternal mortality rate	480 per 100,000 live births ²⁶
Infant mortality rate	56 deaths per 1,000 live births ²⁷
Adolescent birth rate for girls aged between 15-19	96 per 1,000 girls aged 15 – 19 ²⁸
Life expectancy	62 years for females, 62 years for males ²⁹

Table 1: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Cote d’Ivoire

¹⁷ [UN Women, 2024](#)

¹⁸ [UN Women, 2024](#)

¹⁹ [World Economic Forum, 2023](#)

²⁰ [World Bank Gender Data Portal, 2021](#)

²¹ [WHO, Analytical Factsheet, Maternal Mortality, March 2023](#)

²² [World Bank Open Data, 2021](#)

²³ [UNFPA, 2024](#)

²⁴ [World Bank Gender Data Portal, 2021](#)

²⁵ [UNFPA, 2024](#)

²⁶ [World Bank Gender Data Portal, 2021](#)

²⁷ [World Bank Open Data, 2021](#)

²⁸ [UNFPA, 2024](#)

²⁹ [UNFPA, 2024](#)

2. Sexual Exploitation, Abuse and Harassment (SEAH) laws, policy, trends, and data

i. Any info on SEAH in the workplace? Trends on incidents?

According to the World Bank Women, Business and the Law, Côte d'Ivoire (with 77.5 points out of 100.0, with 100.0 being the best) is placed higher in the legal frameworks score than the global average (64.2) and Sub-Saharan regional average (57.4)³⁰. Whilst Côte d'Ivoire achieves a perfect score in many indicators such as freedom of movement, laws affecting women's pay, property and inheritance, the lowest score for Côte d'Ivoire comes from the legal frameworks supporting the 'safety' indicator. As such, Côte d'Ivoire has no comprehensive legislation on sexual harassment, domestic violence, or femicide, and there is no government entity responsible for the monitoring and implementation of national services, plans and programmes addressing violence against women. There is legislation in place related to child marriage, namely *Loi No. 2019-570 du 26 juin 2019 relative au mariage, Arts. 2 et 26; Code Pénal, Art. 439*³¹.

According to UN Women, as of December 2020, only 47.6% of indicators needed to monitor the implementation of SDGs from a gender perspective were available, and there are gaps in key areas, including physical and sexual harassment³².

Some key statistics include the following:

Indicator	Measure (Cote d'Ivoire)
Women aged 20–24 years old who were married or in a union before age 18	27% (2019) ³³
Women aged 15-49 years reporting being subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months	16% (2018) ³⁴
Women aged 15-49 years reporting being subject to physical and/or sexual violence by a current or former intimate partner in their lifetime	27% (2018) ³⁵
Girls and women aged 15-49 who have undergone female genital mutilation	37% (2022) ³⁶

Table 2: Sexual exploitation, abuse, and Harassment (SEAH) trends and data in Cote d'Ivoire

³⁰ [World Bank, Women, Business and the Law, 2024](#)

³¹ [World Bank, Women, Business and the Law, 2024](#)

³² [UN Women, 2020](#)

³³ [UN Women, 2020](#)

³⁴ [UNFPA 2024 World Population Dashboard Cote d'Ivoire, 2024](#)

³⁵ [World Bank Gender Data Portal, 2021](#)

³⁶ [UNFPA 2024 World Population Dashboard Cote d'Ivoire, 2024](#)

Moreover, Sexual Exploitation, Abuse and Harassment (SEAH) are serious issues affecting workplaces in Côte d'Ivoire. According to a study done by Appiah in 2022³⁷, the prevalence of violence and harassment in workplaces can be attributed to both internal organisational dynamics and broader societal influences.³⁸ This study found the following reasons that contribute to SEAH in the workplace:

- “The Power Relationship”³⁹: Unequal power structures are a major reason why violence and harassment occur in workplaces. For example, management positions often hold legal authority, which can create situations where employees feel less empowered to speak up against inappropriate behaviour.
- “The Precariousness”⁴⁰: The study's data suggests that job insecurity significantly contributes to violence and harassment. Many workers, fearing job loss, find themselves in precarious situations. Employment becomes a privilege, not a right, leading some to tolerate abuse to keep their jobs.
- “Impunity”⁴¹: The study identified impunity as a major factor behind workplace violence and harassment. According to data collected from those who had experienced SEAH in the workplace, especially those facing powerful perpetrators, they perceive the legal system as biased and unlikely to deliver justice. This lack of consequences discourages reporting and weakens trust in institutions. Furthermore, the cycle of impunity emboldens perpetrators to reoffend and discourages bystanders from intervening, ultimately creating a climate where workplace abuse thrives.
- “The Insufficiency of the Laws”⁴²: The study found that although Articles 4 and 5 of the Labour Code address workplace violence and harassment, there is no mention of penalties for perpetrators and the law is incomplete. Specifically for the workplace, there is no text protecting vulnerable groups including women, those employed in the informal sector, and domestic workers.
- “The Ignorance of the Law and Protection Mechanisms”⁴³: The study’s survey results also suggest that a lack of knowledge about legal rights and protective measures contributes to workplace violence and harassment, underscoring the need for educational efforts.
- “The Problem of the Burden of Proof”⁴⁴: The burden of proving the guilt of the perpetrator falls on the victim, which is often a prohibitive factor in reporting violence and harassment in the workplace. This both discourages reporting and emboldens perpetrators to become repeat offenders.

³⁷ [Appiah, 2022](#)

³⁸ [Appiah, 2022](#)

³⁹ [Appiah, 2022](#)

⁴⁰ [Appiah, 2022](#)

⁴¹ [Appiah, 2022](#)

⁴² [Appiah, 2022](#)

⁴³ [Appiah, 2022](#)

⁴⁴ [Appiah, 2022](#)

- “Weak Monitoring Capacities of Labor Regulators”⁴⁵: The bodies in place to monitor progress against SEAH in the workplace and enforce legislation are not equipped adequately to effectively fulfil this role, further exacerbating the feelings of impunity of perpetrators and the vulnerability of victims.

Thus, this study found that the factors of “the power relationship”, “the precariousness”, “impunity”, “the insufficiency of laws”, “the ignorance of the law and protection mechanisms”, “the problem of the burden of proof”, and “weak monitoring capacities of labour regulators” contribute to SEAH in the workplace.⁴⁶

3. Political and governing data and analysis

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

Women received the right to vote in 1960, and women have equal rights in terms of access to freedom of movement, and nearly equal rights in terms of access to justice⁴⁷. According to UN Women, Côte d'Ivoire has demonstrated advocacy for gender equality and women's empowerment on the international stage⁴⁸. This is evidenced by the ratification of numerous agreements that address women's rights and broader human rights principles⁴⁹. These include the Protocol on Women's Rights within the African Charter, the CEDAW convention, the goals outlined in the Beijing Declaration and Platform for Action, and the UN Security Council Resolutions on Women, Peace and Security. (1325, 1820, 1888)⁵⁰. In terms of the legal status of women, in November 2016, Côte d'Ivoire adopted a constitution that enshrines the principles of gender equality and equal opportunities, including in the labour market. Furthermore, in 2019, a law stating that all political parties must include at least 30% of women in their list of candidates for elected assemblies, was adopted by the Côte d'Ivoire parliament⁵¹. However, regardless of these commitments, there are still challenges that hinder progress towards gender equality. The World Economic Forum ranks Côte d'Ivoire as the 112th out of the 146 countries assessed in terms of political empowerment overall, 122nd in terms of women in parliament and 65th in terms of women in ministerial positions. To date, there has never been a female head of state in Côte d'Ivoire⁵².

⁴⁵ [Appiah, 2022](#)

⁴⁶ [Appiah, 2022](#)

⁴⁷ [World Economic Forum, 2023](#)

⁴⁸ [UN Women, 2024](#)

⁴⁹ [UN Women, 2024](#)

⁵⁰ [UN Women, 2024](#)

⁵¹ [UN Women, 2024](#)

⁵² [World Economic Forum, 2023](#)

4. Employment data

- i. *Labor force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex)*

As of 2023, the labour force participation rate among women is 56.5%, and 72.2% for men⁵³. The gap between women and men is slightly larger in Côte d'Ivoire than in the rest of Sub-Saharan Africa (60.7% for women and 72.8% for men)⁵⁴. Workers in vulnerable employment are the least likely to have formal work arrangements, social protection and safety nets and are therefore more likely to fall into poverty. In 2022, vulnerable employment among women was 80.8% and 63.4% among men. The rate of vulnerable employment is lower for men but similar for women in Côte d'Ivoire compared to the average rate in Sub-Saharan Africa⁵⁵.

Labour force participation rate, Côte d'Ivoire, females	56.5%
Labour force participation rate, Côte d'Ivoire, males	72.2%
Labor force participation rate Sub-Saharan Africa, females	60.7%
Labor force participation rate Sub-Saharan Africa, males	72.8%
Vulnerable employment rate, Côte d'Ivoire, females	80.8%
Vulnerable employment rate, Côte d'Ivoire males	63.4%
Vulnerable employment rate, Sub-Saharan Africa, females	80.5%
Vulnerable employment, Sub-Saharan Africa, males	71.3%

Table 3: Labour force participation rates and employment rates in Côte d'Ivoire⁵⁶

There are legal provisions in place for women to get jobs in the same way as men (Loi no. 2019-570 du 26 juin 2019 relative au mariage, Art. 57), and the law prohibits discrimination in employment based on gender (Code du Travail, Arts. 4 et 18.5). The law also mandates equal remuneration for work of equal value (Code du Travail, Art 31.2)⁵⁷.

⁵³ [World Bank Gender Data Portal, 2023](#)

⁵⁴ [World Bank Gender Data Portal, 2023](#)

⁵⁵ [World Bank Gender Data Portal, 2023](#)

⁵⁶ [World Bank Gender Data Portal](#)

⁵⁷ [World Bank, Women, Business and the Law, 2024](#)

5. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention? – Research on data regarding caregiving, household chores etc.*
- iii. *What resources (economic, financial, physical, natural, and other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision-making processes? What types of decisions are made by women? What are the constraints (social, cultural, economic, political) that restrict women’s active participation in household and community level decision-making processes?*

Côte d’Ivoire has a Social Progress Index (SPI) of 49.31 out of 100 and is classified as a Tier 5 country, rated as 131 out of 170 ranked countries and territories⁵⁸. The statistics suggest that the basic needs such as nutrition and medical care, housing, water and sanitation and safety are below global standards, and also that social progress has stagnated in Côte d’Ivoire during the previous year⁵⁹.

In Côte d’Ivoire, a woman can be a ‘head of household’ or ‘head of family’ in the same way as a man is. The law is free of legal provisions that would require a married woman to obey her husband, and a woman can also obtain a judgement of divorce and choose where to live in the same way that a man can⁶⁰. However, according to the UNFPA (2024), there are some beliefs in the society in Côte d’Ivoire which continue to discriminate against women, for instance, over 62% of women and girls aged 15 to 24 in the Western part of the country are of the opinion that wife beating can be justified, while between 20% and 52% in the Eastern and central parts are of this opinion⁶¹.

Men and women have equal administrative power and ownership rights to immovable property, including land, and sons and daughters and female and male surviving spouses have equal rights to inherit assets⁶². Nonetheless, only 8% of women have title deeds to land compared to 22% of their male counterparts⁶³. There are currently government-led programmes that provide support to female entrepreneurs such as access to finance and a national government plan with a focus on women’s access to financial services, namely the National Strategy on Financial Inclusion (*Stratégie Nationale d’Inclusion Financière (2019-2024)*)⁶⁴.

6. Education data and analysis

- i. *Educational status of girls and boys, adult literacy rate (disaggregated by sex)*

⁵⁸ [Social Progress Index, 2024](#)

⁵⁹ [Social Progress Index, 2024](#)

⁶⁰ [World Bank, Women, Business and the Law, 2024](#)

⁶¹ [UNFPA 2024 World Population Dashboard Cote d’Ivoire, 2024, Adolescent and Youth Dashboard](#)

⁶² [World Bank, Women, Business and the Law, 2024](#)

⁶³ [World Food Programme \(2018\)](#)

⁶⁴ [World Bank, Women, Business and the Law, 2024](#)

- ii. *Do women have equal access to education, technical knowledge, and/or skill upgradation?*

The gross enrolment rate for primary education in 2022 was 92% for girls and 97% for boys⁶⁵. However, the completion rates for lower secondary education reveal a considerable drop-off, with only 55.5% of girls and 60.2% of boys completing lower secondary school⁶⁶. However, despite the drop-off, this is nonetheless higher than in Sub-Saharan Africa where the completion rate is 43% for girls and 46% for boys⁶⁷. According to UN Women, around 25% of girls and 17% of boys are out of school (primary and lower secondary education)⁶⁸. In terms of adult literacy rate, in 2019, 86.7% of women and 93.1% of men were literate in Côte d'Ivoire, which is much higher for both compared to the regional average which is 74.2% for men and 61.4% for women⁶⁹.

7. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

Côte d'Ivoire's economic participation and opportunity score sits at 0.601 according to the World Economic Forum, placing it 111th out of 146 countries. This mid-range ranking suggests a mixed economic landscape with both opportunities and limitations for economic inclusion⁷⁰.

Côte d'Ivoire is the largest economy in the West African Economic and Monetary Union (WAEMU, or in French UEMOA – Union Economique et Monetaire Ouest Africaine) and acts as a regional economic hub and host country for many nationals in the region. It has a significant manufacturing sector and is the world's top exporter of cocoa and raw cashew nuts and a net exporter of oil⁷¹. The GDP of Côte d'Ivoire was \$70.02 Billion in 2022, or \$2,486.4 per capita, having grown 6.7% in the prior year⁷² and the World Bank highlights that Côte d'Ivoire is experiencing one of the fastest sustained economic growth rates in Sub-Saharan Africa in over a decade⁷³. Poverty is estimated at 9.7% of the population (rate of \$2.15 per day, international poverty line)⁷⁴. According to UN Women data, 24.1% of employed women over the age of 15 are below the international poverty line, compared to 19.8%

⁶⁵[World Bank Open Data, 2022](#)

⁶⁶[World Bank Gender Data Portal, 2023](#)

⁶⁷[World Bank Gender Data Portal, 2023](#)

⁶⁸[UN Women, 2020](#)

⁶⁹[World Bank Gender Data Portal, 2023](#)

⁷⁰[World Economic Forum, 2023](#)

⁷¹[The World Bank in Cote d'Ivoire, 2023](#)

⁷²[World Bank Open Data, 2021](#)

⁷³[The World Bank in Cote d'Ivoire, 2023](#)

⁷⁴[World Bank Open Data, 2021](#)

of men.⁷⁵ With a Human Development Index (HDI) of 0.534, it ranks ‘low in the human development category’ at 166/193 countries and territories⁷⁶.

The World Economic Forum’s Gender Gap Report places Côte d’Ivoire as the 122nd country amongst the 146 countries that it has assessed as part of the research, with a score of 0.650⁷⁷. Women’s economic participation and opportunity varies to some extent with a labour force participation rate of 56.5% compared to 72.2% of males⁷⁸. This is very close to the Sub-Saharan African regional average of 60.7% for females and 72.8% for males⁷⁹. Wage equality for similar work is scored at 0.690 by WEF, with a scale from 1-7 (best), suggesting that women do not get paid the same wages and therefore there is a gender pay gap. Côte d’Ivoire is ranked as the 44th country out of 146 assessed countries. Women and men are assessed as having near-equal rights in terms of access to financial services, near-equal rights in terms of inheritance rights for widows and daughters, but unequal rights when it comes to access to land and non-land assets⁸⁰. With regards to employment in senior and middle management women represented 22.2% in 2017⁸¹.

Account ownership also differs to some extent between men and women in Côte d’Ivoire with 37.4% of women with an account versus 64% of men⁸². The female rate in Côte d’Ivoire is nearly the same as Sub-Saharan Africa (49% of women own accounts versus 61% of men)⁸³. In 2021 in Côte d’Ivoire, 27.5% of men and 10.6% of women used a mobile phone or the internet to pay bills in the past 12 months⁸⁴. The gap in internet usage between men and women in Côte d’Ivoire, 16.9%, is much larger than the gap in Sub-Saharan Africa of 5.3% (19.4% men, and 14.1% women)⁸⁵.

SECTOR-SPECIFIC DATA AND ANALYSIS

8. Agri-business data analysis

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regard to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*

⁷⁵ [UN Women, 2020](#)

⁷⁶ [United Nations Development Programme, Human Development Report 2022, Cote d’Ivoire](#)

⁷⁷ [World Economic Forum, 2023](#)

⁷⁸ [World Bank Gender Data Portal, 2023](#)

⁷⁹ [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

⁸⁰ [World Economic Forum, 2023](#)

⁸¹ [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

⁸² [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

⁸³ [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

⁸⁴ [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

⁸⁵ [World Bank, Gender Data Portal, Cote d’Ivoire, 2023](#)

- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average. - under the agribusiness subsection.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women -are there female entrepreneurs? How hard is it for them to attract capital?*

Agriculture is the foundation of the economy in Côte d'Ivoire, representing 22% of GDP (versus 48% at independence in 1960)⁸⁶. The World Food Programme (WFP) estimates that most food producers (2,300,000) in Côte d'Ivoire are women. Seventy-five percent (75%) of Ivorians depend on agricultural activities for their basic livelihoods while 77% are employed in the informal sector for instance in self-employment on 'family farms or selling goods and services'⁸⁷.

According to the World Bank, Côte d'Ivoire is the world's largest producer of cocoa, with over 40% of the world's total production. The country also is the world's largest producer and exporter of cashew nuts, as well as the largest exporter of rubber, palm oil, bananas, pineapples, and copra in Africa, and the second largest producer of Robusta in Africa (7th in the world). The World Bank reports that Côte d'Ivoire is self-sufficient in a variety of staple foods, namely maize, sorghum, millet, yam, cassava, and plantain banana, with exports growing to the sub-region⁸⁸.

The strong agricultural economy is built on a rich natural resource base. Approximately 75%, or 24 million ha out of the country's 32 million ha territory is used as agricultural land⁸⁹. Of this, 3.5 million ha is arable land, 6.8 million ha is permanent crops, and 13.2 million ha is permanent meadows and pastures⁹⁰.

The agricultural sector is dominated by subsistence and rainfed labour-intensive manual cultivation practices managed by smallholder producers, who work 84% of the arable land, with low levels of mechanization, irrigation, and use of fertilizer and other inputs⁹¹. More than 90% of all farmers only have small holdings; the average agricultural holding in Côte d'Ivoire is between 0.5 to 3 ha⁹² and there are very few large commercial farms, except for oil palm and rubber industrial plantations in the south of the country⁹³.

Agriculture in Côte d'Ivoire remains labour intensive, with infrequent input use and a low level of mechanisation⁹⁴. Only 2% of the total cultivated area is irrigated, which is much lower than the Sub-Saharan African average of 6%⁹⁵. Yields are frequently low except in the case of rubber, oil palm, and cotton, for which most of the fertilizer in the country is used⁹⁶. The majority of farmers grow a mix of

⁸⁶ [World Bank Group, 2023](#)

⁸⁷ [World Food Programme, 2018](#)

⁸⁸ [World Bank Group, 2023](#)

⁸⁹ [World Bank Group, 2023](#)

⁹⁰ [Food and Agriculture Organisation of the United Nations \(FAO\) \(2021\)](#)

⁹¹ [World Food Programme, 2018](#)

⁹² [World Food Programme, 2018](#)

⁹³ [World Bank Group, 2023](#)

⁹⁴ [World Bank Group, 2023](#)

⁹⁵ [World Bank Group, 2023](#)

⁹⁶ [World Bank Group, 2023](#)

cash crops (such as cocoa, coffee, rubber, oil palm, cotton, and cashews) and food crops (such as roots and tubers, rice, cereals/beans, and garden horticulture) crops⁹⁷.

90% of agricultural-reliant households are headed by men⁹⁸. While only 8% of women are landowners, yet they are viewed as responsible for “75% of basic food production at the household level”⁹⁹. Research shows that the productivity (yields) where the land is owned by women is substantially lower than that of men with a recorded productivity gap of 24% in 2016¹⁰⁰.

More than 70% of small-scale farmers struggle to make ends meet, with over a third facing extreme hardship¹⁰¹. Women in these households are disproportionately affected by poverty, with nearly half (47.4%) living in poverty compared to 45.4% of men¹⁰².

In Côte d'Ivoire, the International Fund for Agricultural Development (IFAD) tackles poverty by prioritizing food security in struggling rural communities¹⁰³. Their programmes and projects empower farmers' organisations to enhance the marketing of agricultural products. This focus includes providing access to rural finance, developing and transferring new technologies, and improving rural infrastructure.¹⁰⁴

IFAD's core activities aim to ensure long-term food access for rural populations, stabilizing supplies across seasons and overcoming shortages.¹⁰⁵ Additionally, they strive to improve the overall well-being of rural households, encompassing better health, sanitation, and nutrition.¹⁰⁶

IFAD fosters strong partnerships with the Ivorian government, primarily collaborating with the Ministry of Agriculture's Directorate for Programming¹⁰⁷. They've also established long-standing collaborations with the World Bank and the West African Development Bank.¹⁰⁸

Moreover, the 2X Criteria Thresholds provide minimum requirements for global gender lens investment and organisational practices for companies and investors of all sizes. Table 3 below depicts the 2X Criteria Threshold for Agribusiness & Food in Côte d'Ivoire.¹⁰⁹

Indicator	Measure
Entrepreneurship & Ownership	Founded by a woman (or group of women) that retain an active role OR at least 50% of shares owned by women
Leadership	At least 35% of senior management is women OR 30% of board members are women

⁹⁷ [World Bank Group, 2023](#)

⁹⁸ [World Food Programme \(2018\)](#)

⁹⁹ [World Food Programme \(2018\)](#)

¹⁰⁰ [World Food Programme \(2018\)](#)

¹⁰¹ [World Food Programme \(2018\)](#)

¹⁰² [World Food Programme \(2018\)](#)

¹⁰³ [IFAD, no date](#)

¹⁰⁴ [IFAD, no date](#)

¹⁰⁵ [IFAD, no date](#)

¹⁰⁶ [IFAD, no date](#)

¹⁰⁷ [IFAD, no date](#)

¹⁰⁸ [IFAD, no date](#)

¹⁰⁹ [2X Criteria, no date](#)

Employment	At least 40% of employees/workers are women AND at least one quality employment indicator in place beyond what is legally required
Products & Services	Products/services are offered that enhance the well-being of women/girls
Supply Chain	Explicit commitment to women in the supply chain is demonstrated AND at least one quality employment indicator in place in the supply chain beyond what is legally required
Governance	At least 3 practices that demonstrate intentional efforts to drive gender equality, representing 1 in EACH sub-dimension of ¹¹⁰ : 1) Strategic action 2) Management systems 3) Data

Table 3: 2X Criteria for Agribusiness and food – Cote d’Ivoire¹¹¹

9. Climate change and agriculture

- i. *How does climate change affect female farmers vs male farmers?*
- ii. *What are some of the inequalities that exist between different social groups in the project/program footprint area? How do these inequalities affect people’s capacity to adapt to climate change?*
- iii. *Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- iv. *Any research on how women respond to shocks? Does less access to capital mean a harder time recovering?*

Sub-Saharan Africa's economies, heavily reliant on agriculture, are significantly impacted by climate change due to the sector's climate sensitivity¹¹². The agriculture sector in Côte d'Ivoire is hampered by a confluence of challenges, including deforestation (at an alarming rate), the decline of reforestation, soil erosion, land tenure, climate change, as well as weather variability.¹¹³

Côte d'Ivoire faces experiences a multitude of interconnected challenges/threats due to its geographical location.¹¹⁴ These challenges include unmanaged socio-economic consequences of floods, land degradation, rising sea levels, coastal erosion, declining agricultural productivity, increased vulnerability to endemic diseases like malaria and meningitis, and a rise in the frequency of droughts.¹¹⁵

¹¹⁰ [2X Criteria, no date](#)

¹¹¹ [2X Criteria, no date](#)

¹¹² [Desquith, 2023](#)

¹¹³ [FAO, 2018](#)

¹¹⁴ [Kouman et al., 2024](#)

¹¹⁵ [Kouman et al., 2024](#)

According to the FAO (2018)¹¹⁶ over the five decades from 1960 to 2010, the national average temperature has risen by 1.6°C in the Ivorian Coast.¹¹⁷ Climate projections further suggest continued warming, with potential increases of 1.8°C and 2.1°C by 2050 and 2070, respectively. Notably, these increases are expected to be most pronounced in the northern regions, where malnutrition rates are already high.¹¹⁸

Increasing temperatures affect rainfall. Rainfall patterns are changing dramatically, with the FAO reporting a decline in rainfall amounts, shorter rainy seasons with delayed starts, longer dry seasons, and rising temperatures¹¹⁹. These disruptions throw farming cycles into disarray and stress crops¹²⁰.

UN Women (2022) stated that “The climate crisis is not gender neutral.”¹²¹ The escalating climate crisis, coupled with persistent gender inequality, creates a global challenge; it threatens the livelihoods, health, safety, and security of women and girls worldwide¹²². According to UN Women (2022), women depend more on natural resources than their male counterparts, despite having less access to natural resources¹²³.

In many areas, women are responsible for securing essential resources like food, water, and fuel for their families¹²⁴. This burden is especially heavy in low- and lower-middle income countries where agriculture is a primary source of income¹²⁵. When droughts or unpredictable rainfall occurs, these women, who are often both farmers and providers, must work even more diligently to secure resources for their families¹²⁶. This can force girls to leave school to help, limiting their education and future opportunities¹²⁷.

¹¹⁶ [FAO, 2018](#)

¹¹⁷ [FAO, 2018](#)

¹¹⁸ [FAO, 2018](#)

¹¹⁹ [FAO, 2018](#)

¹²⁰ [FAO, 2018](#)

¹²¹ [UN Women, 2022](#)

¹²² [UN Women, 2022](#)

¹²³ [UN Women, 2022](#)

¹²⁴ [UN Women, 2022](#)

¹²⁵ [UN Women, 2022](#)

¹²⁶ [UN Women, 2022](#)

¹²⁷ [UN Women, 2022](#)

10. Vulnerable Subgroups

i. Could there be a short section on vulnerable subgroups. e.g. children, girls, women and men with disabilities, the elderly, widows, indigenous? Any specific info on them?

According to Doctors with Africa (CUAMM) (2023)¹²⁸, many people with disabilities face challenges getting the healthcare they need. These challenges can include high costs, a lack of available services, physical barriers that make it hard to access care, and even healthcare workers who may not have the proper training or understanding¹²⁹. There are organisations present trying to tackle these issues, such as the Rehabilitation Centre of Mother Teresa Verzeri in Ivory Coast which helps children with severe psychomotor disorders¹³⁰.

Since 1971, SOS Children's Villages has provided a haven for children and young people in Côte d'Ivoire who have lost parental care or are at risk of doing so¹³¹. In Côte d'Ivoire, 40% of the population lives below the poverty line¹³². According to GAP Missions an Orphan Ministry, Cote d'Ivoire had 130,000 orphans in 2022¹³³ and 22% of children, particularly those between 5 and 14, are forced into child labour¹³⁴. According to the SOS Children's Villages¹³⁵, 15% of Côte d'Ivoire's population are chronically undernourished. In 2020, Côte d'Ivoire grappled with food insecurity, as 11% of its population struggled to obtain or produce enough food¹³⁶. This challenge was especially significant for young children, with chronic malnutrition affecting nearly a quarter of all children under the age of five¹³⁷. Rural areas, especially those in the western and northern regions, face a disproportionate burden of malnutrition due to various vulnerabilities¹³⁸.

¹²⁸ [Doctors with Africa CUAMM, 2023](#)

¹²⁹ [Doctors with Africa CUAMM, 2023](#)

¹³⁰ [Doctors with Africa CUAMM, 2023](#)

¹³¹ [SOS Children's Village, no date](#)

¹³² [SOS Children's Villages, no date](#)

¹³³ [GAP Missions,\(2022](#)

¹³⁴ [Côte d'Ivoire \(sos-childrensvillages.org\)](#)

¹³⁵ [SOS Children's Villages, no date](#)

¹³⁶ [SOS Children's Villages, no date](#)

¹³⁷ [SOS Children's Villages, no date](#)

¹³⁸ [SOS Children's Villages, no date](#)

11. Organisations that support women entrepreneurs in specific country (focus on the agriculture sector)

Organisation	Description
AFAWA - Affirmative Finance Action for Women in Africa (AFAWA) ¹³⁹	AFAWA is a non-profit organisation that provides financial and business support services to women entrepreneurs in Africa. They offer a variety of programs and services, including access to finance, training, and mentorship.
CGFE - Gender and Woman Entrepreneurship Commission (CGFE) ¹⁴⁰	CGFE is a government commission that promotes the development of women's entrepreneurship in Côte d'Ivoire. They provide training, grants, and other forms of support to women entrepreneurs.
Ivory Coast: A government-led agricultural initiative to empower women and nourish communities ¹⁴¹	A government-sponsored project in Côte d'Ivoire empowers women in villages by giving them land to grow vegetables for school canteens. This project not only provides nutritious meals for 39,000 children but also allows women to earn income by selling excess produce. The women use this income to improve their households, send their children to school, and save for the future. With support from partners, the women are learning better farming techniques and forming groups to ensure the project's success.

Table 4: Organisations that support women entrepreneurs

¹³⁹ [AFAWA](#)

¹⁴⁰ [CGFE, 2020](#)

¹⁴¹ [AfricaNews, 2024](#)

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

The Republic of Egypt is located in the north-eastern corner of Africa¹⁴² and, according to the UNFPA World Population Dashboard¹⁴³, the total population of Egypt in January 2024 was estimated to be 114.5 million. With 49% of the population in 2022 being females¹⁴⁴ and 51% were males¹⁴⁵. The demographic composition of the country includes a substantial youth population, with 32% of its residents aged between 0-14 years, 63% between 15-64 years, and only 5% aged 65 years and older in 2024¹⁴⁶. According to the UNDP Human Development Report¹⁴⁷, Egypt has a Human Development Index (HDI) of 0.728. This places Egypt in the 'high' human development category, ranking 105 out of 191 territories¹⁴⁸.

According to the World Bank (2023)¹⁴⁹, Egypt has been facing longstanding challenges that have been worsened by various global shocks. These challenges include a foreign exchange crisis, high inflation, and increased pressures on the country's fiscal and external accounts. Global shocks have triggered these macroeconomic imbalances, but the underlying issues in Egypt include slow non-oil exports, limited foreign direct investment (FDI), a lack of private sector activity and job creation (especially for youth and women), and a growing government debt¹⁵⁰. The country's revenue mobilisation is also below its potential, which hampers its ability to invest in human and physical capital for its population of over 105 million people, nearly 30 percent of whom live below the national poverty line based on 2019 estimates¹⁵¹. The overlapping global shocks and domestic supply bottlenecks have negatively affected economic activity in Egypt, resulting in a decline in growth from 6.6% in the previous year to 4.2% during the fiscal year of July 2022 to June 2023¹⁵². Inflation has been high since March 2022 and reached 37.4% in August 2023, with food inflation at 71.7%¹⁵³. Although Egypt's total foreign exchange resources, including official reserves and other foreign currency assets, have started to recover from a significant drop in March 2022 and were reported at USD 42.9 billion by the end of August 2023, the availability of hard currency remains a significant challenge¹⁵⁴.

The 2023 Global Gender Gap Report by the World Economic Forum¹⁵⁵ indicates that Egypt has achieved 62.6% parity gender parity and is ranked 134 out of 146 globally. From 2017 to 2021, Egypt made progress towards gender parity, peaking at 63.9% in 2021, but it has seen a regression in

¹⁴² [World Bank, 2021](#)

¹⁴³ [UNFPA World Population Dashboard Egypt](#)

¹⁴⁴ [World Bank, 2022](#)

¹⁴⁵ [World Bank, 2022](#)

¹⁴⁶ [UNFPA World Population Dashboard Egypt](#)

¹⁴⁷ [UNDP HDI Egypt](#)

¹⁴⁸ [UNDP HDI Egypt](#)

¹⁴⁹ [World Bank in Egypt](#)

¹⁵⁰ [World Bank in Egypt](#)

¹⁵¹ [World Bank in Egypt](#)

¹⁵² [World Bank in Egypt](#)

¹⁵³ [World Bank in Egypt](#)

¹⁵⁴ [World Bank in Egypt](#)

¹⁵⁵ [WEF Global Gender Gap Report 2023](#)

subsequent years, dropping to 63.5% in 2022 and further declining in the latest report¹⁵⁶. The Educational Attainment subindex saw a decrease of 3% due to reduced enrolment rates in secondary and tertiary education¹⁵⁷. Despite these setbacks, the Health and Survival subindex has remained stable at 96.8% parity and the Economic Participation and Opportunity subindex improved by 1.7% to 42%, driven by increases in the proportion of women in senior officer roles (12.4%) and technical positions (35.1%)¹⁵⁸. However, political empowerment remains low, with women holding 27.5% of parliamentary seats and 18.8% of ministerial positions, equating to 17.5% parity in this area¹⁵⁹.

1. Health data and analysis

- i. *What is the maternal mortality rate, infant mortality rate, life expectancy (disaggregated by sex)*

According to the Egypt Family Health Survey 2021 conducted by the Central Agency for Public Mobilisation and Statistics (CAPMAS)¹⁶⁰, the infant mortality rate stands at 25 deaths per 1,000 births, predominantly occurring in the first month of life (18 deaths per 1,000 births). The under-five mortality rate is 28 deaths per 1,000 births, with variations observed between urban (24 deaths per 1,000 births) and rural areas (32 deaths per 1,000 births)¹⁶¹. Notably, rural Upper Egypt exhibits the highest under-five mortality rate at 39 deaths per 1,000 births, while urban Lower Egypt has the lowest at 20 deaths per 1,000 births¹⁶². The data also reveals a significant correlation between maternal education and child mortality; children of mothers with secondary education have a mortality rate of 23 deaths per 1,000 births, compared to 38 for those whose mothers have no education¹⁶³. Additionally, three out of four currently married women potentially face elevated risks of child mortality due to factors such as advanced maternal age, short birth intervals, and high birth order¹⁶⁴.

According to data from the World Bank's Gender Data Portal¹⁶⁵, Egypt has seen significant improvements in maternal health over the past two decades. The maternal mortality ratio, which measures the number of women who die from pregnancy-related causes during pregnancy or within 42 days of terminating a pregnancy per 100,000 live births, decreased from 79 in 2000 to 17 in 2020¹⁶⁶. This rate is notably lower than the regional average, indicating substantial progress in maternal health care in Egypt. Furthermore, adolescent fertility rates have also seen a decline; in 2021, there were 45 births per 1,000 females aged 15-19¹⁶⁷. This rate closely aligns with the average for Egypt's income group and represents a decrease from previous years.

¹⁵⁶ [WEF Global Gender Gap Report 2023](#)

¹⁵⁷ [WEF Global Gender Gap Report 2023](#)

¹⁵⁸ [WEF Global Gender Gap Report 2023](#)

¹⁵⁹ [WEF Global Gender Gap Report 2023](#)

¹⁶⁰ [Egypt Family Health Survey 2021](#)

¹⁶¹ [Egypt Family Health Survey 2021](#)

¹⁶² [Egypt Family Health Survey 2021](#)

¹⁶³ [Egypt Family Health Survey 2021](#)

¹⁶⁴ [Egypt Family Health Survey 2021](#)

¹⁶⁵ [World Bank Gender Data Portal Egypt](#)

¹⁶⁶ [World Bank Gender Data Portal Egypt](#)

¹⁶⁷ [World Bank Gender Data Portal Egypt](#)

According to the UNFPA World Population Dashboard,¹⁶⁸ the life expectancy at birth in 2024 is estimated to be 70 years for males and 75 years for females. See Table 1 for a breakdown of Egypt's maternal mortality rate, infant mortality rate, adolescent birth rate, and life expectancy.

¹⁶⁸ [UNFPA World Population Dashboard Egypt](#)

Maternal mortality rate	17 per 100,000 live births (2020) ¹⁶⁹
Infant mortality rate	25 deaths per 1,000 live births (2021) ¹⁷⁰
Adolescent birth rate for girls aged between 15-19	45 per 1,000 (2021) ¹⁷¹
Life expectancy	70 years for males, 75 years for females (2024) ¹⁷²

Table 5: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Egypt

2. Sexual Exploitation, Abuse and Harassment (SEAH) Laws, Policy, Trends, and Data

i. Any info on SEAH in the workplace? Trends on incidents?

According to Articles 267, 269 and 306 of the Egyptian Penal Code of 1937, as amended by Law No. 50 of 2014, sexual harassment, including public indecent assault through words, actions, or gestures, is strictly prohibited¹⁷³. The law mandates a minimum punishment of six months in prison and a fine ranging from EGP 3,000 to 5,000 for such offences¹⁷⁴. This applies to harassment conducted via telephone and/or other telecommunication means¹⁷⁵. For repeat offenders, the penalties increase to a minimum of one year in prison and a fine between EGP 5,000 and 10,000¹⁷⁶. If the harassment is intended to secure sexual gratification, the offender faces at least one year in prison and a fine of EGP 10,000 to 20,000¹⁷⁷. Furthermore, those who use duress to attain sexual gratification can be sentenced to between two and five years in prison and fined between EGP 20,000 and 50,000.¹⁷⁸

The primary legal framework for combating human trafficking, including sex trafficking, in Egypt is established under the "Law on Combating Human Trafficking" (Law No. 64 of 2010)¹⁷⁹. It offers a comprehensive definition of human trafficking, imposes severe penalties on traffickers, and protects victims, including non-prosecution for crimes committed as a direct result of being trafficked¹⁸⁰. The law also facilitates coordination between governmental and non-governmental organisations and enhances international cooperation, including adherence to the United Nations Protocol to Prevent,

¹⁶⁹ [World Bank Gender Data Portal Egypt](#)

¹⁷⁰ [Egypt Family Health Survey 2021](#)

¹⁷¹ [World Bank Gender Data Portal Egypt](#)

¹⁷² [UNFPA World Population Dashboard Egypt](#)

¹⁷³ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁴ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁵ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁶ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁷ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁸ [Egyptian Penal Code of 1937, amended by Law No. 50 of 2014](#)

¹⁷⁹ [Law No. \(64\) of 2010 regarding Combating Human Trafficking](#)

¹⁸⁰ [Law No. \(64\) of 2010 regarding Combating Human Trafficking](#)

Suppress and Punish Trafficking in Persons, Especially Women and Children (also known as the Palermo Protocol).¹⁸¹

Egypt is a signatory to several international conventions that obligate it to fight sexual exploitation and harassment, including the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and ILO Convention 111 of 1958 concerning Discrimination in Respect of Employment and Occupation¹⁸². While the conventions do not explicitly address sexual intimidation or harassment, these behaviours are implicitly recognised as forms of gender discrimination under the broader framework of the conventions¹⁸³.

The National Strategy for Combating Violence against Women (2015-2020)¹⁸⁴ in Egypt, developed by the National Council for Women, aimed to address, and mitigate violence against women through a comprehensive approach involving prevention, protection, prosecution, and policy coordination. The strategy focused on public awareness campaigns, enhancing legal and support frameworks, and improving training for law enforcement and judicial personnel¹⁸⁵. Initiatives included educational reforms, improved victim support services like shelters and hotlines, and collaborations with NGOs¹⁸⁶.

There is a paucity of data regarding SEAH trends in the workplace. However, a 2021 study investigating trends in sexual harassment in the workplace in hotels in Egypt showed that sexual harassment in the industry is rife, with only 20% of incidences being reported and the chief cause/enabling factor of violence and harassment being attributed to male perpetrators being in a position of power over the victims¹⁸⁷.

According to 2018 data from UN Women¹⁸⁸, 11.9% of ever-partnered women and girls aged 15 and older reported experiencing physical and/or sexual violence by a current or former intimate partner within the previous 12 months. The rate for those specifically aged 15-49 was slightly higher at 15.1%¹⁸⁹. Additionally, data from the World Bank's Gender Data Portal¹⁹⁰ from the same year indicates that 4.5% of women aged 15-49 encountered some form of sexual violence, regardless of their marital status or the identity of the perpetrator¹⁹¹. The percentage of women aged 15 – 49 who have ever experienced intimate partner violence in Egypt is 30%, higher than the world average of 27%¹⁹².

According to the Egypt Family Health Survey 2021 conducted by CAPMAS¹⁹³, a minority of ever-married women aged 15-49 believe that wife beating is justified under certain circumstances: 15% if she goes out without informing her husband, 16% for neglecting the children, 8% if she argues with him, 9% if she refuses to have sex with him, and 4% if she burns the food.

¹⁸¹ [Law No. \(64\) of 2010 regarding Combating Human Trafficking](#)

¹⁸² [Ratifications for Egypt, ILO](#)

¹⁸³ [Ratifications for Egypt, ILO](#)

¹⁸⁴ [The National Strategy for Combating Violence against Women, 2015 - 2020](#)

¹⁸⁵ [The National Strategy for Combating Violence against Women, 2015 - 2020](#)

¹⁸⁶ [The National Strategy for Combating Violence against Women, 2015 - 2020](#)

¹⁸⁷ [Touni and Hussien, 2021](#)

¹⁸⁸ [UN Women Egypt](#)

¹⁸⁹ [UN Women Egypt](#)

¹⁹⁰ [World Bank Gender Data Portal Egypt](#)

¹⁹¹ [World Bank Gender Data Portal Egypt](#)

¹⁹² [World Bank Gender Data Portal Egypt](#)

¹⁹³ [Egypt Family Health Survey 2021](#)

The prevalence of female genital mutilation among girls aged 15-19 was 87% in the year 2022, a¹⁹⁴. These statistics reflect the prevalence of this practice among women and girls within this specific age group, indicating a significant cultural and health issue that affects a large portion of the female population.

The UNFPA World Population Dashboard¹⁹⁵ reports that, 16% of children in Egypt were married by the age of 18 in the year 2023.

Indicator	Measure (Egypt)
Women aged 20–24 years old who were married or in a union before age 18 ¹⁹⁶	17.4% (2014)
Adolescent birth rate ¹⁹⁷	45 per 1,000 women aged 15 – 19 (2021)
Women aged 15-49 years reporting being subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months ¹⁹⁸	15.1% (2018)
Women aged 15-49 years reporting being subject to physical and/or sexual violence by a current or former intimate partner in their lifetime	Not available
Girls and women aged 15-49 who have undergone female genital mutilation/cutting ¹⁹⁹	87% (2022)

Table 6: SEAH trends and data in Egypt

3. Political and governing data and analysis

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

According to data from the World Bank's Gender Data Portal, in 2022, women held 27.6%²⁰⁰ of the seats in Egypt's national parliament. This metric, which measures the percentage of parliamentary seats in a single or lower chamber occupied by women, has shown an increase since 2010 and the current rate exceeds the average for lower-middle-income countries²⁰¹. Additionally, women

¹⁹⁴ [UNFPA World Population Dashboard Egypt](#)

¹⁹⁵ [UNFPA World Population Dashboard Egypt](#)

¹⁹⁶ [UN Women Egypt](#)

¹⁹⁷ [World Bank Gender Data Portal Egypt](#)

¹⁹⁸ [UN Women - Egypt](#)

¹⁹⁹ [UNFPA World Population Dashboard Egypt](#)

²⁰⁰ [World Bank Gender Data Portal, 2022](#)

²⁰¹ [World Bank Gender Data Portal Egypt](#)

constituted 20.5% of those employed in senior and middle management positions in Egypt in 2021²⁰². However, this percentage places Egypt in the lowest quintile globally, according to the most recent data available from between 2010 and 2023²⁰³. It is also worth noting that in 2020, firms with female participation in ownership accounted for 5.2% of all firms. Additionally, in 2022, women held 18.8% of ministerial-level positions.²⁰⁴

The lack of women in leadership can be explained by prevailing gender-based social norms that are prevalent in Egypt, including that men should be the primary breadwinners and women should be focused on domestic responsibilities, and stereotypes of women being less capable than men and being poorer quality leaders²⁰⁵. Gender roles such as these result in women having limited economic opportunities as well as a diminished political and societal voice²⁰⁶.

4. Employment data

- i. *Labour force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex).*

Labor Code No. 12 of 2003²⁰⁷ in Articles 35, 88, and 120, prohibits employment discrimination based on gender. However, the same law also includes restrictions specific to women: Article 89 restricts women from working at night under the same conditions as men, and Article 90 prohibits women from engaging in jobs considered dangerous, again under different conditions than those for men²⁰⁸. Furthermore, according to the Decree of the Minister of Manpower and Immigration No. 43 of 2021, women are not permitted to work in certain industrial roles, such as those in mining, construction, factories, and energy sectors, in the same capacity as men²⁰⁹. However, the decree does not explicitly mention restrictions in fields such as agriculture, water, and transportation²¹⁰.

According to data from the World Bank's Gender Data Portal²¹¹, the labour force participation rate in Egypt for 2023 stands at 16.5% for females and 71.3% for males. This measure represents the proportion of the population aged 15 and older that is economically active. Notably, female labour force participation in Egypt has decreased since 1990. Additionally, the gender gap in labour force participation in Egypt is wider compared to the average gap in lower-middle-income countries²¹².

The Annual Bulletin Labour Force Survey released by CAPMAS in April 2022²¹³, shows the unemployment rate among female youth aged 15-29 in 2021 was significantly higher than that of their

²⁰² [World Bank Gender Data Portal Egypt](#)

²⁰³ [World Bank Gender Data Portal Egypt](#)

²⁰⁴ [World Bank Gender Data Portal Egypt](#)

²⁰⁵ [Halim et al., 2023](#)

²⁰⁶ [Halim et al., 2023](#)

²⁰⁷ [Labor Code Law No. 12 of 2003](#)

²⁰⁸ [Labor Code Law No. 12 of 2003](#)

²⁰⁹ [Labor Code Law No. 12 of 2003](#)

²¹⁰ [Labor Code Law No. 12 of 2003](#)

²¹¹ [World Bank Gender Data Portal Egypt](#)

²¹² [World Bank Gender Data Portal Egypt](#)

²¹³ [Annual Bulletin Labour Force Survey 2022](#)

male counterparts, with 35.9% of young women unemployed compared to 10.8% of young men within the total unemployed population.

According to the Egypt Family Health Survey 2021 by CAPMAS²¹⁴, more than half of the employed women hold positions in professional, technical, managerial, or clerical fields. Additionally, 25% work in sales and services, 8% are employed in agriculture, and 13% are engaged in handicraft occupations²¹⁵. The survey also reveals that 5% of working women do not receive any form of payment for their work, a figure that rises to 33% among those employed in agricultural activities²¹⁶. Furthermore, over one-fifth of women working in agriculture are employed on a seasonal basis²¹⁷.

World Bank's Gender Data Portal²¹⁸, shows vulnerable employment for females in Egypt has improved since 1991. Vulnerable employment refers to workers who are least likely to have formal work arrangements or access to social protection and safety nets, making them more susceptible to economic shocks and poverty²¹⁹. In 2022, the rate of vulnerable employment was 27.7% for women and 23.1% for men in Egypt²²⁰. In 2022, wage and salaried workers accounted for 71% of female employment and 72.9% of male employment.²²¹ In 2021, 8.49% of females aged 15 and older received a public sector pension, compared to 8.55% of males in the same age group.²²²

Table 3 below presents data on vulnerable employment from the World Bank Gender Portal, comparing rates between males and females, and contrasting Egypt with the Middle East and North Africa region.²²³

Labour force participation rate, Egypt, females	16.5% (2023)
Labour force participation rate, Egypt, males	71.3% (2023)
Labour force participation rate, Middle East & North Africa, females	19% (2023)
Labour force participation rate, Middle East & North Africa, males	71.3% (2023)
Vulnerable employment rate, Egypt, females	27.7% (2022)
Vulnerable employment rate, Egypt, males	23.1% (2022)
Vulnerable employment rate, Middle East & North Africa, females	22.3% (2022)
Vulnerable employment, Middle East & North Africa, males	25.1% (2022)

²¹⁴ [Egypt Family Health Survey 2021](#)

²¹⁵ [Egypt Family Health Survey 2021](#)

²¹⁶ [Egypt Family Health Survey 2021](#)

²¹⁷ [Egypt Family Health Survey 2021](#)

²¹⁸ [World Bank Gender Data Portal Egypt](#)

²¹⁹ [World Bank Gender Data Portal Egypt](#)

²²⁰ [World Bank Gender Data Portal Egypt](#)

²²¹ [World Bank Gender Data Portal Egypt](#)

²²² [World Bank Gender Data Portal Egypt](#)

²²³ [World Bank Gender Data Portal Egypt](#)

Table 7: Labour force participation rates and employment rates in Egypt²²⁴

5. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention? – Research on data regarding caregiving, household chores etc.*
- iii. *What resources (economic, financial, physical, natural, and other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision-making processes?*

According to Halim et al., 2023 some commonly held beliefs and perceptions in Egypt are²²⁵:

- **Traditional Gender Roles:** Egyptian society often adheres to traditional gender roles, where men are expected to be the primary breadwinners and women are expected to focus on domestic responsibilities and caregiving.
- **Male Dominance:** There is a perception of male dominance and authority in Egyptian society, where men are seen as the head of the household and decision-makers.
- **Limited Female Agency:** Women are often perceived as needing protection and guidance, leading to limited agency and autonomy in decision-making.
- **Gendered Division of Labour:** There is a belief in the division of labour based on gender, with men primarily engaged in work outside the home and women responsible for household chores and childcare.
- **Limited Economic Opportunities for Women:** Women may face barriers and limited opportunities for economic participation and advancement in the workforce, leading to lower rates of women's participation in the economy compared to men.
- **Gender Inequality in Politics:** Women's representation in political positions, such as parliament seats, may be low, indicating a gender imbalance in political power.
- **Stereotypes about Women's Abilities:** There may be stereotypes and perceptions that women are less capable or suited for certain professions or leadership roles.
- **Expectations of Modesty:** There is an emphasis on modesty and conservative dress for women, with societal expectations regarding their appearance and behaviour.

In Egypt, women spend 9.2 times as much time on unpaid domestic and care work as men²²⁶. This data, expressed as a proportion of time in a day, measures the average time individuals dedicate to household tasks and services for their own consumption.

²²⁴ [World Bank Gender Data Portal Egypt](#)

²²⁵ [Halim et al., 2023](#)

²²⁶ [World Bank Gender Data Portal Egypt](#)

According to the Civil Code of 1948²²⁷, Article 44, men and women have equal rights to own immovable property. Furthermore, the Personal Status Law No. 1/2000²²⁸, Article 3, grants spouses' equal administrative authority over assets during their marriage. However, the Inheritance Law No. 77/1943²²⁹ establishes that sons and daughters do not have equal rights to inherit assets from their parents, and there are also disparities in the inheritance rights between female and male surviving spouses.

A 2018 report titled "Care Work and Care Jobs for the Future of Decent Work" by the International Labour Organisation (ILO)²³⁰, highlights in Egypt, there is an employment rate of 18.4% for mothers and 87.4% for fathers. The study highlights the importance of women's paid work for the household's livelihood, particularly when there are young children present, which leads to a reduction in the gap between maternal and paternal employment²³¹. The report also provides percentages of inactive females in Egypt and the main reasons for being outside of the labour force. It states that 64.8% of women are inactive due to unpaid care work, and 23.9% are inactive due to personal reasons such as being in education, being sick, or having a disability²³². Additionally, 7.7% cite other sources of income as their reason for not participating in the labour force, and 2.8% mention reasons related to the labour market²³³.

The Egypt Family Health Survey 2021 conducted by CAPMAS²³⁴, states approximately 70% of ever-married women report facing at least one barrier to accessing healthcare for themselves. The most common obstacles cited include a lack of available medications (54%) and a shortage of healthcare providers (45%)²³⁵. Additionally, the survey reveals that only 9% of ever-married women have coverage under any type of health insurance²³⁶. Health insurance coverage is highest among women in the top wealth quintile (19%) and those with secondary or higher education (14%)²³⁷.

The UNFPA World Population Dashboard Egypt reflects no recorded data on women's decision-making power on sexual and reproductive health and reproductive rights²³⁸. Additionally, the World Bank reports that 58.8% of women in Egypt reported participating in making major decisions in the household in 2014²³⁹.

²²⁷ [Law No. 131 of 1948 promulgating the Civil Code](#)

²²⁸ [Personal Status Law No. 1/2000](#)

²²⁹ [Inheritance Law No. 77/1943](#)

²³⁰ [ILO Care Work and Care Jobs, 2018](#)

²³¹ [ILO Care Work and Care Jobs, 2018](#)

²³² [ILO Care Work and Care Jobs, 2018](#)

²³³ [ILO Care Work and Care Jobs, 2018](#)

²³⁴ [Egypt Family Health Survey 2021](#)

²³⁵ [Egypt Family Health Survey 2021](#)

²³⁶ [Egypt Family Health Survey 2021](#)

²³⁷ [Egypt Family Health Survey 2021](#)

²³⁸ [UNFPA World Population Dashboard Egypt](#)

²³⁹ [World Bank Gender Data Portal Egypt](#)

6. Education data and analysis

- i. *Educational status of girls and boys, adult literacy rate (disaggregated by sex).*
- ii. *Do women have equal access to education, technical knowledge, and/or skill upgradation? (access to technical knowledge and skills upgradation is discussed in agribusiness section 9).*

According to the UNFPA World Population Dashboard,²⁴⁰ the Gender Parity Index (GPI) for the total net enrolment rate in primary, lower secondary, and upper secondary education remained at 1 from 2017 to 2023, indicating equal enrolment rates for males and females across all three educational levels.

According to the World Bank's Gender Data Portal²⁴¹, the adult female literacy rate in Egypt is lower than the average for the Middle East & North Africa region. The adult literacy rate is defined as the percentage of individuals aged 15 and above who can read and write a short, simple statement about their everyday life with understanding. In 2022, the adult literacy rates in Egypt were 80% for males and 68.9% for females²⁴².

7. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

According to data from the Household Income, Expenditure, and Consumption Survey for 2019/2020, conducted by CAPMAS²⁴³, Egypt's overall poverty rate during the fiscal year 2019/2020 stood at 29.7%.

Moreover, according to Labour Law No. 12 of 2003²⁴⁴, both men and women are eligible to retire with full pension benefits at the age of 60. The law also stipulates that men and women can retire with partial pension benefits at the same age, and the mandatory retirement age for both genders is uniformly set at 60. Additionally, periods of absence from work due to childcare are accounted for in the calculation of pension benefits.

The World Bank's Gender Data Portal,²⁴⁵ in Egypt, in 2020, stated that women accounted for 15% of the total newly registered limited liability company owners, compared to 85% for men. Additionally, in 2017, 27% of Egyptian women and 38.7% of men reported having a bank or financial institution account or using a mobile money service in the past year²⁴⁶. The 11.7% gender gap in account

²⁴⁰ [UNFPA World Population Dashboard Egypt](#)

²⁴¹ [World Bank Gender Data Portal Egypt](#)

²⁴² [World Bank Gender Data Portal Egypt](#)

²⁴³ [Household Income, Expenditure, and Consumption Survey, 2019/2020](#)

²⁴⁴ [Labor Code Law No. 12 of 2003](#)

²⁴⁵ [World Bank Gender Data Portal Egypt](#)

²⁴⁶ [World Bank Gender Data Portal Egypt](#)

ownership in Egypt was narrower than the Middle East & North Africa regional average of 18.8%²⁴⁷. Ownership of assets, such as property, has been linked to several positive outcomes for women's empowerment, health, and children's education. In 2014, only 4.8% of Egyptian women owned a dwelling, either alone or jointly²⁴⁸. However, a significant proportion of women were involved in major household decisions: 58.8% participated in making major purchases, 82.7% in decisions about their own healthcare, and 75.7% in planning visits to family and friends²⁴⁹. Furthermore, in 2021, Egyptian women and men utilised mobile phones and the internet to pay bills at comparable rates, indicating similar levels of digital financial engagement between genders²⁵⁰.

²⁴⁷ [World Bank Gender Data Portal Egypt](#)

²⁴⁸ [World Bank Gender Data Portal Egypt](#)

²⁴⁹ [World Bank Gender Data Portal Egypt](#)

²⁵⁰ [World Bank Gender Data Portal Egypt](#)

SECTOR-SPECIFIC DATA AND ANALYSIS

8. Agri-business data

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regard to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*
- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women -are there female entrepreneurs? How hard is it for them to attract capital?*

The agriculture sector in Egypt is a major source of livelihood for 57.2% of the population,²⁵¹ employing approximately 30% of the labour force. In rural Upper Egypt, over 55% of employment is related to agriculture²⁵²

Over 50% of rural women actively participate in informal tasks related to farming, including fertilization, weeding, harvesting (particularly fruit and vegetables), post-harvesting activities, animal care, sacking, marketing, and storage of agricultural products²⁵³. Some women also engage in ploughing and irrigation. Additionally, women are responsible for domestic tasks such as water and fuel collection, as well as food processing and preparation²⁵⁴.

The 2022 FAO report "Country Gender Assessment of the Agriculture and Rural Sector: Egypt"²⁵⁵ highlights the active participation of women in various agricultural sub-sectors in Egypt yet underscores their marginalisation and invisibility within the sector's support institutions. Women face cultural and social norms that uphold patriarchal values, especially in rural and Upper Egypt, where they are often seen as helpers rather than key agricultural workers²⁵⁶. This perception persists despite women's significant contributions to farming, particularly when men migrate temporarily, although any temporary gains in decision-making are usually reversed upon their return²⁵⁷. Structurally, women in rural Egypt struggle with limited access to land, productive assets, childcare, transportation, and healthcare, all of which are compounded by institutional biases in agricultural

²⁵¹ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵² [Breisinger et al., 2020](#)

²⁵³ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵⁴ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵⁵ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵⁶ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵⁷ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

policies and services that fail to adequately support women's specific needs²⁵⁸. Despite some normative shifts towards greater inclusivity in new agricultural areas, and existing constitutional and strategic commitments to women's empowerment, the practical application of these principles remains inconsistent and limited, often excluding women from meaningful participation and benefits in the agricultural sector.

Access to productive assets, such as land ownership, is limited for women in Egypt. Only 5.2% of the total agricultural land in Egypt is owned by women, and this ownership pattern differs between the Old and New Lands, with higher female land ownership in the New Lands (around 20%) compared to the Old Lands (26%)^{259;260}. The lack of land ownership undermines women farmers' agency and their contributions to agricultural production. It also limits their participation in agricultural cooperatives and water user associations^{261;262}.

Women's access to extension services and rural finance is also limited. Agricultural support services are often not tailored to the specific needs of rural women, and women's roles in agricultural production are often undervalued. The dominance of men in the extension services sector further excludes women from training and extension services, denying them associated benefits^{263;264}. There is a disparity between the Old Lands and the New Lands regarding women's access to training, with women in the New Lands receiving more comprehensive training on irrigation and agricultural management compared to basic training provided to women in the Old Lands^{265;266}. Additionally, rural women face structural barriers to accessing credit and microcredit opportunities as financial institutions typically require land or property as collateral²⁶⁷.

Employment in agriculture, female (% of female employment) ²⁶⁸	18.1%% (2022)
Employment in agriculture, male (% of male employment) ²⁶⁹	18.8% (2022)
Employment in agriculture (% of total employment) ²⁷⁰	30% (2020)

Table 8: Egypt's agricultural employment

²⁵⁸ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁵⁹ [Najjar et al., 2019](#)

²⁶⁰ [FAO Country Gender Assessment of the Agriculture and Rural Sector – Egypt, 2022](#)

²⁶¹ [Barnes, 2014](#)

²⁶² [Najjar et al., 2019](#)

²⁶³ [Barnes, 2014](#)

²⁶⁴ [Najjar et al., 2019](#)

²⁶⁵ [Barnes, 2014](#)

²⁶⁶ [Najjar et al., 2019](#)

²⁶⁷ [FAO Gender, water and agriculture, 2022](#)

²⁶⁸ [World Bank Gender Data Portal Egypt](#)

²⁶⁹ [World Bank Gender Data Portal Egypt](#)

²⁷⁰ [Breisinger et al., 2020](#)

The 2X Criteria Thresholds,²⁷¹ which provide minimum requirements for global gender lens investment and organisational practices, specific to the agribusiness and food sector in Egypt are as follows, shown in Table 5 below.

²⁷¹ [2X Criteria, 2024](#)

Topic	Criteria
Entrepreneurship & Ownership	Founded by a woman (or group of women) that retain an active role OR at least 50% of shares owned by women ²⁷²
Leadership	At least 30% of senior management is women OR 30% of board members are women ²⁷³
Employment	At least 25% of employees/workers are women AND at least one quality employment indicator in place beyond what is legally required ²⁷⁴
Products and Services	Products/services are offered that enhance the well-being of women/girls ²⁷⁵
Supply Chain	Explicit commitment to women in the supply chain is demonstrated AND at least one quality employment indicator is in place in the supply chain beyond what is legally required ²⁷⁶
Governance	At least 3 practices that demonstrate intentional efforts to drive gender equality, representing 1 in EACH sub-dimension of: 1) Strategic action 2) Management systems 3) Data ²⁷⁷

Table 9: 2X Criteria for the Agribusiness and Food sector in Egypt²⁷⁸

9. Climate change and agriculture

- i. *Will there be any anticipated differences in men’s and women’s vulnerability and adaptive capacity to climate change? If so, what are these?*
- ii. *How does climate change affect female farmers vs male farmers?*
- iii. *Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- iv. *Any research on how women respond to shocks? Does less access to capital mean harder time recovering?*

The relationship between climate change and gender has significant implications for Egypt's sustainable development, particularly in the agriculture sector. Egypt’s climate-change-related

²⁷² [2X Criteria, 2024](#)

²⁷³ [2X Criteria, 2024](#)

²⁷⁴ [2X Criteria, 2024](#)

²⁷⁵ [2X Criteria, 2024](#)

²⁷⁶ [2X Criteria, 2024](#)

²⁷⁷ [2X Criteria, 2024](#)

²⁷⁸ [2X Criteria, 2024](#)

Nationally Determined Contributions, submitted in 2023 to the United Nations, makes no mention of gender or women according to Gender Climate Tracker²⁷⁹.

Women farmers in Egypt face greater challenges in adapting to and mitigating the impacts of climate change compared to men²⁸⁰. These challenges arise from limited access to productive assets, information, technology, and financial services²⁸¹. Additionally, higher rates of illiteracy and limited mobility among women as compared to men contribute to women's limited adaptive capacity²⁸².

Specifically, Egyptian women's livelihoods being disproportionately and strongly intertwined with agriculture, which is especially vulnerable to climate change, lead to them being more affected by and less likely to be able to absorb the effects of climate shocks than men²⁸³.

10. Vulnerable Subgroups

- i. *Could there be a short section on vulnerable subgroups. e.g. children, girls, women and men with disabilities, the elderly, widows, indigenous? Any specific info on them?*

Takaful and Karama Programme

A UNICEF report from 2019²⁸⁴ discusses the reform of social protection in Egypt, occurring through the Takaful and Karama Programme (TKP), a “pro-women programme”, which focuses on priority groups including children, pregnant women, the elderly, disabled persons, and extremely poor families.

People with Disability

According to the United Nations Arab Digital Inclusion Platform²⁸⁵, as of 2018 and using a broad definition of disability, 16.6% of the population of Egypt is disabled, with this being 17.58% for females and 15.6% for males. The unemployment rate, rate of illiteracy, and the prevalence of poverty and hunger are reportedly significantly higher among the disabled population of Egypt as compared to the rest of the population²⁸⁶.

Additionally, a collaborative report released in 2020²⁸⁷ reports that, in Egypt, 34% of ever-married women have experienced disability-based violence perpetrated by their husbands at any point in their lives. This report writes within the context of high rates of gender-based violence being perpetrated against women and girls in Egypt, with those with disabilities and especially those with multiple disabilities being particularly vulnerable.

LGBTQ+ and Religious Minorities

Additionally, the LGBTQ+ community, including homosexual and transgender people, continue to face significant prejudice, discrimination, and violence in Egypt²⁸⁸. The country also faces significant

²⁷⁹ [Gender Climate Tracker Egypt](#)

²⁸⁰ [Kandeel, 2017](#)

²⁸¹ [Kandeel, 2017](#)

²⁸² [Kandeel, 2017](#)

²⁸³ [Daoud, 2021](#)

²⁸⁴ [UNICEF Reform of Social Protection in Egypt, 2019](#)

²⁸⁵ [United Nations Arab Digital Inclusion Platform](#)

²⁸⁶ [WeCapable, 2021](#)

²⁸⁷ [Violence Against Women with Disabilities, 2020](#)

²⁸⁸ [Human Rights Watch, 2019](#)

challenges related to religious discrimination, tensions, and conflict, with minority religious groups including non-Sunni Muslims facing legal and socio-cultural barriers²⁸⁹.

11. Organisations that Support Women Entrepreneurs in Specific Country (focus on agriculture sector)

Several organisations in Egypt support women entrepreneurs in the agricultural sector. These organisations provide various forms of assistance, including training, mentorship, access to finance, and networking opportunities. Here are some notable organisations:

Organisation	Description
SEKEM ²⁹⁰	SEKEM is a sustainable development organisation that supports women in the agricultural sector. It offers training programs and capacity-building initiatives for women farmers and entrepreneurs. SEKEM promotes organic farming practices and sustainable agriculture, providing women with opportunities to develop their businesses.
The Center for Development Services (CDS) ²⁹¹	CDS is an organisation that supports rural development and women's empowerment in Egypt. It offers training and capacity-building programs for women in agriculture, including entrepreneurship skills. CDS aims to enhance the economic participation and leadership of women in rural areas.
The National Women's Council (NWC) ²⁹²	The NWC is a governmental organisation that works towards gender equality and women's empowerment in Egypt. It provides support and resources for women entrepreneurs in various sectors, including agriculture. The NWC promotes policies and initiatives that encourage women's economic participation and entrepreneurship.
Egyptian Women's Development Association (EWDA) ²⁹³	EDWA is a non-profit organisation that focuses on empowering women in rural areas of Egypt. They provide training and support to women entrepreneurs in various sectors, including agriculture. EDWA offers business development programs, access to finance, and networking opportunities for women in the agricultural sector.
Egyptian Feminist	EFU is an organisation that works towards the economic empowerment of women in Egypt. They support women entrepreneurs in different sectors, including agriculture, by providing training, mentorship, and access to resources.

²⁸⁹ [Human Rights Watch, 2019](#)

²⁹⁰ [SEKEM](#)

²⁹¹ [CDS](#)

²⁹² [NWC](#)

²⁹³ [EWDA](#)

Union (EFU)²⁹⁴	EFU also advocates for policies that promote gender equality and women's rights in the agricultural sector.
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²⁹⁴ EFU

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

Ghana is located on the west coast of Africa, bordered by Côte d'Ivoire (Ivory Coast) to the west, Burkina Faso to the north, Togo to the east, and the Gulf of Guinea to the south. In 2024, Ghana's population was approximately 34.8 million²⁹⁵. Ghana had a relatively equal distribution of gender, with both females²⁹⁶ and males²⁹⁷ comprising roughly 50% of the total population. In 2022, 37% of the population aged between 0-14²⁹⁸. Ghana exhibited a notable demographic structure, with a substantial proportion of its population falling within the working-age bracket. Specifically, 60% of the population was aged between 15 and 64²⁹⁹ years. This demographic composition suggests a significant reservoir of human capital within the prime working age, which can potentially contribute to the country's workforce, economic productivity, and overall developmental endeavours. While only 4% of the population was aged 65 and above³⁰⁰. Ghana has a large working population and consequently needs to ensure sustainable job creation.

Ghana was ranked 100th out of 146 countries assessed in the Global Gender Gap Index for 2023, with a score of 0.688.³⁰¹ This score reflects Ghana's progress in closing gender gaps across various indicators compared to other countries included in the index.

According to the World Bank, the country's GDP was projected to be 4.6% in 2023, reflecting a stable economic growth trajectory. Despite the challenges posed by various factors, such as fluctuations in oil revenues, the country maintained its fiscal consolidation efforts. Additionally, total revenues and grants reached 15.7% of GDP in 2023, remaining consistent with the previous year's levels despite the economic uncertainties.³⁰² In 2022, Ghana had a Human Development Index (HDI) value of 0.602. This value suggests that the country has made progress in these key areas but still has room for improvement. It provides an indication of Ghana's overall level of human development relative to other countries.³⁰³

Ghana's dependence on agriculture provides an opportunity for the ARAF II Fund to support sustainable agri-business and therefore impact smallholder farmers.

²⁹⁵ [World Population Dashboard -Ghana | United Nations Population Fund](#)

²⁹⁶ [World Bank Open Data](#)

²⁹⁷ [World Bank Open Data](#)

²⁹⁸ [World Bank Open Data](#)

²⁹⁹ [World Bank Open Data](#)

³⁰⁰ [World Bank Open Data](#)

³⁰¹ [Global Gender Gap Report023 | World Economic Forum](#)

³⁰² [World Bank - Ghana](#)

³⁰³ [Human Development Index](#)

12. Health data and analysis

i. What is the maternal mortality rate, infant mortality rate, life expectancy (disaggregated by sex)

In 2024, Ghana has a population of 34.8³⁰⁴ million. With a relatively equal distribution of gender, with both females³⁰⁵ and males³⁰⁶ comprising roughly 50% of the total population. Ghana has a maternal mortality ratio of 263 per 100,000 live births³⁰⁷ In 2021, Ghana had an infant mortality rate of 33 deaths per 1,000 live births³⁰⁸ while South Africa had an infant mortality rate of 26 deaths per 1.000 live births³⁰⁹ A lower infant mortality rate typically indicates better access to healthcare, nutrition, and other factors that contribute to infant health and well-being.

This translates to a relatively positive outcome, indicating that a high percentage of infants survive their first year. On average, Ghanaian women can expect to live to 68 years old, whereas men have a life expectancy of 63 years.³¹⁰

Ghana is positioned to become the first nation in Sub-Saharan Africa to enact universal health coverage, facilitated by the nationwide expansion of geographic accessibility through the Community-based Health Planning and Services initiative.³¹¹ In 2021, Ghana's Universal health coverage (UHC) service coverage index was 48. A score of 48 suggests that roughly half of the essential health services required by the population are currently being provided or accessed in Ghana.³¹²

Maternal mortality rate	263 per 100,000 live births ³¹³
Infant mortality rate	33 per 1,000 live births ³¹⁴
Adolescent birth rate for girls aged between 15-19	7.1 per 1,000 ³¹⁵
Life expectancy	68 years for females and 63 years for males ³¹⁶

³⁰⁴ [World Population Dashboard -Ghana | United Nations Population Fund](#)

³⁰⁵ [World Bank Open Data](#)

³⁰⁶ [World Bank Open Data](#)

³⁰⁷ [World Population Dashboard -Ghana | United Nations Population Fund](#)

³⁰⁸ [World Bank Open Data](#)

³⁰⁹ [World Bank](#)

³¹⁰ [World Population Dashboard -Ghana | United Nations Population Fund](#)

³¹¹ [Using Health Systems and Policy Research to Achieve Universal Health Coverage in Ghana](#)

³¹² [United Nations Population Fund - Ghana](#)

³¹³ [World Population Dashboard -Ghana | United Nations Population Fund](#)

³¹⁴ [World Bank Open Data](#)

³¹⁵ [World Bank Open Data](#)

³¹⁶ [World Population Dashboard -Ghana | United Nations Population Fund](#)

Table 11: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Ghana

13. Sexual Exploitation, Abuse and Harassment (SEAH) Laws, Policy, Trends, and Data

i. Any info on SEAH in the workplace? Trends on incidents?

According to the United Nations report, a study by the Ghana Statistical Service (GSS) found that nearly one-quarter (24.4%) of women aged 15-49 reported experiencing physical or sexual violence from an intimate partner at some point in their lifetimes. Furthermore, the study found that 19.2% of ever-partnered women aged 15-49 have also experienced violence within that relationship. The report also highlights that 19.3% of women aged 20-24 were married or in a union before their 18th birthday.³¹⁷

According to a UNICEF Report³¹⁸ further reports that adolescent girls in Ghana face challenges with sexual and reproductive health and rights. One out of every ten girls engaged in sexual activity before reaching the age of 15, compared to one out of every fourteen boys. However, only a minority receive adequate contraceptive support. Early pregnancy is linked to both child marriage and occurs independently. Abortion is more prevalent among adolescent girls, yet many lack the necessary awareness for safe procedures.³¹⁹

The UNICEF report emphasises the vulnerability of adolescent girls. Nearly all encounter psychological aggression, and almost one in five undergo severe physical punishment. They are also more susceptible to violence, with 22% reporting sexual abuse within the last year. Interestingly, the report also found that adolescent girls demonstrate a higher tendency to rationalise wife-beating compared to boys.³²⁰

Despite these challenges, Ghana has undertaken proactive measures. The UNICEF report details national initiatives to empower adolescent girls, such as the Coordinated Programme of Economic and Social Development Policies (2017-2024), the Five-Year Strategic Plan to Address Adolescent Pregnancy (2018-2022), and the National Strategic Framework on Ending Child Marriage (2017-2026).³²¹

As depicted in Table 3, the legal framework in Ghana addresses various forms of gender-based violence through legislation such as the Criminal and Other Offences Act, 1960 (Act 29), which specifies legal consequences for crimes like assault and rape. Additionally, laws like the Domestic Violence Act, 2007 (Act 732), provide protection for victims of domestic violence and outline penalties for offenders. The Human Trafficking Act, 2005 (Act 694), addresses trafficking, particularly affecting women, and girls, while the Intestate Succession Law, 1985, ensures widows' rights to inherit property, reducing vulnerabilities to gender-based violence. Furthermore, the Criminal

³¹⁷ [United Nations, 2023](#)

³¹⁸ [UNICEF, 2021](#)

³¹⁹ [UNICEF, 2021](#)

³²⁰ [UNICEF, 2021](#)

³²¹ [UNICEF, 2021](#)

Procedure Code, 1960, outlines procedures for prosecuting offenders involved in such cases. However, Ghana currently lacks specific legislation addressing femicide, comprehensive laws on sexual harassment, and regulations targeting child marriage. These gaps in the legal framework present challenges in effectively addressing these critical issues and ensuring the protection of women and children from gender-based violence and harmful practices. Moreover, the law does not prohibit discrimination in recruitment based on marital status, parental status, and age.³²²

Sexual extortion, assault, and harassment (SEAH) are also prevalent in the workplace and can happen to both males and females. However, a highly significant proportion of SEAH cases in Ghana remain unreported.³²³ This lack of disclosure can be attributed, in part, to the financial constraints faced by victims, particularly those residing in impoverished communities. The mandatory requirement for a medical examination, which incurs a cost of approximately \$85, presents a substantial barrier to reporting such incidents through official channels.³²⁴ Multiple studies in Ghana highlight the prevalence of SEAH in the workplace and educational institutions. A BBC documentary called “Sex for Grades” (2019),³²⁵ documents how female students are sexually abused and/or harassed in universities. Moreover, Boafo (2018)³²⁶ found that more than half of nurses in Ghana have been sexually harassed and verbally abused the year before the study took place. A study done by Brobbey et al. (2022) confirms a well-established link between sexual harassment and negative employee outcomes. Their study demonstrates a direct relationship with work-related negativity, performance decline, turnover intentions, interpersonal dissatisfaction, and psychosomatic complaints.³²⁷ Statistics regarding SEAH in the workplace may not be available due to cases being unreported.

Women aged 20–24 years old who were married or in a union before age 18.	19.3% ³²⁸
Adolescent birth rate	78 per 1,000 women aged 15-19 (2018) ³²⁹
Adolescent pregnancy: Percentage of women, aged 20-24, who gave birth before the age of 18	16.9% ³³⁰
Female genital mutilation among girls aged 15-19	2% (2022) ³³¹
Women aged 15-49 years reported that they had been subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months.	10.2% ³³²

³²² [WBL24-2-0-Ghana](#)

³²³ [Brobbey et al., 2022](#)

³²⁴ [Dini-Osman, 2022](#)

³²⁵ [BBC, 2019](#)

³²⁶ [Boafo, 2018](#)

³²⁷ [Brobbey et al, 2022](#)

³²⁸ [UN Women Data Hub](#)

³²⁹ [UN Women Data Hub](#)

³³⁰ [UNPF - Ghana](#)

³³¹ [World Population Dashboard -Ghana | United Nations Population Fund](#)

³³² [UN Women Data Hub - Ghana](#)

Table 12 : Sexual Exploitation Data - Ghana

Law	Description
<p>Domestic Violence and Criminal Offence Act</p>	<p>Domestic Violence Act, Secs. 1(b)(i) - (iv), 3(2), and 11-22; Criminal Offences Act, Sec. 97³³³</p>
<p>CRIMINAL AND OTHER OFFENCES ACT, 1960 (ACT 29)</p>	<p>This act includes provisions against assault, rape, and other forms of sexual violence. It specifies the legal consequences for perpetrators of these crimes³³⁴</p>
<p>DOMESTIC VIOLENCE ACT, 2007 (ACT 732)</p>	<p>This law criminalises various forms of domestic violence, including physical, sexual, emotional, and economic abuse. It provides protection orders for victims and outlines penalties for offenders.³³⁵</p>
<p>HUMAN TRAFFICKING ACT, 2005 (ACT 694)</p>	<p>This act addresses various forms of human trafficking, including trafficking for forced labour and sexual exploitation, which disproportionately affect women and girls.³³⁶</p>
<p>The Intestate Succession Law (1985)</p>	<p>This law ensures that widows have the right to inherit their deceased spouses' property, helping to mitigate vulnerabilities that can lead to gender-based violence³³⁷</p>

³³³ [WBL24-2-0-Ghana](#)

³³⁴ [Judicial Service of Ghana and UNICEF Ghana, 2019](#)

³³⁵ [Judicial Services of Ghana and UNICEF Ghana, 2019](#)

³³⁶ [Judicial Service of Ghana and UNICEF Ghana, 2019](#)

³³⁷ [Woodman, 2009](#)

<p>The Criminal Procedure Code (1960)</p>	<p>This code includes provisions for the prosecution of offenders involved in gender-based violence cases and outlines procedures for bringing perpetrators to justice.³³⁸</p>
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Table 13: Abuse and Harassment (SEAH) Laws – Ghana

14. Political and governing data

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

According to Amakye, Chimhutu and Darkwah (2022)³³⁹ stereotypes towards women and leadership roles may include beliefs that women are better suited for traditional caregiving roles rather than positions of authority and decision-making in professional settings. There may be perceptions that women lack the assertiveness or toughness required for leadership positions, or that they are less capable than men in handling high-pressure situations. Additionally, societal norms and expectations may discourage women from aspiring to leadership roles, perpetuating the stereotype that leadership is a domain primarily for men. These stereotypes can hinder women's advancement in corporate leadership and contribute to their underrepresentation in leadership positions in Ghana.³⁴⁰

Despite comprising half (50.1%)³⁴¹ of Ghana's population, women remain significantly underrepresented in government. In the national parliament, only 16% are women and just 21% hold ministerial positions. This disparity extends to local government, where women comprise a mere 14% of Metropolitan, Municipal and District Chief Executives. While these figures suggest some progress, significant work remains to achieve gender equality in Ghanaian leadership³⁴²

According to a recent report by the World Economic Forum (2023), Ghana ranked 111th out of 146 countries on the political empowerment subindex, with a score of 0.119.³⁴³ Indicating that women in Ghana have considerably less influence and participation in political spheres compared to men. On

³³⁸ [Criminal Procedure Code 1960-1](#)

³³⁹ [Amakye, Chimhutu & Darkwah, 2021](#)

³⁴⁰ [Amakye, Chimhutu & Darkwah, 2021](#)

³⁴¹ [World Bank Open Data](#)

³⁴² [Azinim, Musah, & UNDP Ghana](#)

³⁴³ [World Economic Forum, 2023](#)

the Economic Participation and Opportunity subindex, Ghana was ranked 80th out of 146 countries and had a score of 0.682.³⁴⁴ With a rank of 80th out of 146 countries, Ghana falls in the middle range, suggesting that there is room for improvement in terms of providing economic opportunities and facilitating participation in the economy for its citizens. The score of 0.682 reflects the level of achievement in this subindex, with higher scores indicating better performance. While Ghana's score indicates some level of success in providing economic opportunities, there are still challenges or areas where improvements are needed to enhance economic participation and opportunities for its population.

Moreover, according to the Women, Business, and the Law 2024 (WBL2024),³⁴⁵ , Ghana achieves a score of 75.0 out of 100.0. Notably, Ghana's overall score surpasses the regional average witnessed across Sub-Saharan Africa, which stands at 74.0. Moreover, within the Sub-Saharan Africa region, the highest score recorded is 97.5.

According to the World Bank,³⁴⁶ Ghana had the following strengths. In terms of restrictions on freedom of movement, laws impacting women's choices regarding employment, and limitations associated with marriage, Ghana achieves a perfect score of 100.³⁴⁷ The report mentioned the following areas for improvement. When it comes to legislation affecting women's remuneration, regulations regarding women's employment following childbirth, obstacles to women commencing and overseeing businesses, disparities in property and inheritance based on gender, and laws determining the extent of women's retirement benefits, Ghana might contemplate reforms to advance legal equity for women. For instance, Ghana faces challenges in its scoring for laws impacting women's employment post-childbirth, as indicated by the WBL2024 Parenthood indicator. To enhance performance in this regard, Ghana could consider implementing measures like providing paid leave of at least 14 weeks for mothers, ensuring that the government administers 100% of maternity leave benefits, offering paid leave options for fathers, and introducing paid parental leave.³⁴⁸

15. Employment data

- i. *Labour force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex)*

In 2023, a total of 14,549,322 Ghanaians actively participated in the labour force.³⁴⁹ In 2023, Ghana's labour force participation rate, representing the percentage of the total population aged 15 and above actively engaged in the labour force, was 71.3%³⁵⁰. The labour force participation rates for females and males stand at 65.3% and 72.4%, respectively. This reflects a relatively high level of engagement in the workforce compared to the Sub-Saharan African average of 60.7% for females and 72.8% for males. However, despite an active participation, a concerning disparity exists in vulnerable employment rates. In Ghana, 77.3% of females and 62.4% of males are engaged in

³⁴⁴ [World Economic Forum, 2023](#)

³⁴⁵ [World Bank: Women, Business and The Law 2024](#)

³⁴⁶ [World Bank: Women, Business and The Law 2024](#)

³⁴⁷ [World Bank: Women, Business and The Law 2024](#)

³⁴⁸ [World Bank: Women, Business and The Law 2024](#)

³⁴⁹ [World Bank Open Data](#)

³⁵⁰ [World Bank Open Data](#)

vulnerable employment, highlighting significant challenges in accessing secure and stable job opportunities. Similarly, in Sub-Saharan Africa as a whole, vulnerable employment rates are alarmingly high, particularly for females at 80.5% and males at 71.3%, indicating widespread economic vulnerabilities across the region. These statistics underscore the need for targeted interventions to promote inclusive and sustainable economic growth and improve the quality of employment opportunities, particularly for women.³⁵¹ Ghana faces a gender gap in labour force participation. Additionally, in 2022, 43% of males in Ghana were employed in the agriculture sector,³⁵² while 37% of females³⁵³ held agriculture employment.

Although the overall employment rate displays a gender gap, with a higher percentage of men employed compared to women, the unemployment rates were remarkably close. Men report a 3.4% unemployment rate,³⁵⁴ whereas women reported a slightly higher rate of 3.7%³⁵⁵.

Labour force participation rate, Ghana, females	65.3%
Labour force participation rate, Ghana, males	72.4%
Labour force participation rate in Sub-Saharan Africa, females	60.7%
Labour force participation rate in Sub-Saharan Africa, males	72.8%
Vulnerable employment rate, Ghana, females	77.3%
Vulnerable employment rate, Ghana males	62.4%
Vulnerable employment rate, Sub-Saharan Africa, females	80.5%
Vulnerable employment, Sub-Saharan Africa, males	71.3%

Table 14: Labour force participation rates and employment rates in Ghana³⁵⁶

³⁵¹ [Ghana - World Bank Gender Data Portal](#)

³⁵² [World Bank Open Data](#)

³⁵³ [World Bank Open Data](#)

³⁵⁴ [World Bank Open Data](#)

³⁵⁵ [World Bank Open Data](#)

³⁵⁶ [Ghana - World Bank Gender Data Portal](#)

16. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention? – Research on data regarding caregiving, household chores etc.*
- iii. *What resources (economic, financial, physical, natural, and other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision-making processes?*

Gender in Ghana is a multifaceted issue influenced by various factors, including socialisation practises, social structures, and cultural norms. This section will highlight a few of the stereotypes.

Education gap: Limited access to education creates a significant gender gap in Ghana. Factors like resource constraints, early marriage, and societal beliefs favouring male education create hurdles for women. These disparities translate into fewer economic opportunities and lower overall well-being for women.³⁵⁷ In Ghana, subject selection is often influenced by gender stereotypes. Boys are seen as being better suited for mathematics and sciences, while girls are encouraged to pursue languages and arts.³⁵⁸

Career Paths: Men are expected to pursue careers traditionally seen as masculine, like engineering or business. While women are often directed toward professions like teaching or nursing.³⁵⁹

Poverty and Health: Women are disproportionately burdened by poverty. This lack of economic power creates a cycle of disadvantage, limiting their access to essential healthcare, nutritious food, and proper sanitation. Furthermore, cultural norms can restrict their ability to make decisions about their own health and well-being, trapping them in a cycle of vulnerability.³⁶⁰

Cultural Expectations: Men are traditionally seen as breadwinners, taking on physically demanding outdoor work and leadership roles. Conversely, women are expected to focus on housework, childcare, and nurturing within the family.^{361 362} Men are stereotyped as strong, independent, assertive, and decisive. They are encouraged to be unemotional and take risks, particularly in business.³⁶³ While women are seen as compassionate, caring, and nurturing. They are expected to be submissive and prioritise family needs.³⁶⁴

During adolescence, the division of labour becomes notably gendered, Traditional gender roles assign the responsibility of earning income (breadwinners) to men³⁶⁵ While girls devote more time to

³⁵⁷ [Akotia & Anum, 2015](#)

³⁵⁸ [Osman, 2021](#)

³⁵⁹ [Adom and Anambane, 2019](#)

³⁶⁰ [Akotia & Anum, 2015](#)

³⁶¹ [Osman, 2021](#)

³⁶² [Wadei et al., 2019](#)

³⁶³ [Akotia & Anum, 2015](#)

³⁶⁴ [Osman, 2021](#)

³⁶⁵ [Wadei et al., 2019](#)

household chores as they mature. Girls are predominantly tasked with responsibilities like meal preparation, cleaning, and caregiving, which can further solidify traditional gender roles regarding domestic obligations.³⁶⁶

According to the World Bank, the labour force participation rate for females was 65.3% in 2023³⁶⁷ compared to 72.4% for males.³⁶⁸ Both women and men have access to a range of resources, including economic, financial, physical, natural, and other assets. These resources can vary based on factors such as socio-economic status, geographic location, and cultural norms.

Gender Disparities: Ghana's traditional gender roles, rooted in a patriarchal system, often place men in the primary decision-making role within the home, workplace, and other settings.³⁶⁹ Women in Ghana spend 155 min per day on domestic services for their final use within the household, 53 min on caregiving services to household members, and 12 min on community services and help to other households.³⁷⁰ Compared to men, who spend 40 min per day on domestic services for their final use within the household, 11 min on caregiving services to household members and 17 min on community services and help to other households.³⁷¹ Moreover, women and girls aged 10+ spend 14.4% of their time on unpaid care and domestic work, compared to men who spend 3.5%.³⁷²

Land: Patrilineal inheritance systems limit land inheritance to the male line of descent (father to son or father to brothers). Wives and daughters are excluded from inheriting land under these customary practices. Thus, women may access land through husbands or family but lack ownership rights.³⁷³

A study by Fuseini, Kalule-Sabiti & Lwanga (2019)³⁷⁴ reveals that culture and religion shape power structures and gender roles in household decision-making. Particularly through religious institutions that act as strong influences during socialisation. These institutions often uphold the existing power structures, impacting who makes decisions in the household. Despite men's authority in household decision-making, women are active players in the household decision-making process. There appears to be socially acceptable punishments for women making household decisions without their partner's consent.³⁷⁵

While Ghana's social fabric acknowledges women's contributions, traditional power structures still pose significant obstacles to their ascension to leadership positions. Deeply ingrained patriarchal norms relegate women to a subordinate status across various aspects of life. Cultural practices, legal frameworks, and even religious interpretations have historically justified and maintained these inequalities. Furthermore, limited awareness and prioritisation of gender equality within leadership structures create additional hurdles. The rising financial burden of Ghanaian politics and a decline in advocacy efforts by women's groups due to resource constraints further complicate the situation.³⁷⁶

³⁶⁶ [Wadei et al., 2019](#)

³⁶⁷ [World Bank Open Data](#)

³⁶⁸ [Ghana - World Bank Gender Data Portal](#)

³⁶⁹ [Appiah-Kubi, Ceter & Luboder, 2020](#)

³⁷⁰ [International Labour Organisation](#)

³⁷¹ [International Labour Organisation](#)

³⁷² [UN Women Data Hub - Ghana](#)

³⁷³ [Kuusaana, 2010](#)

³⁷⁴ [Fuseini, Kalule-Sabiti & Lwanga, 2019](#)

³⁷⁵ [Fuseini, Kalule-Sabiti & Lwanga, 2019](#)

³⁷⁶ [Asuako, 2020](#)

Men in Ghana generally have better access to most resources. Traditional inheritance systems often favour men, especially regarding land ownership in patrilineal societies. They hold more control over decision-making related to these resources. While women face challenges accessing land, credit, and financial resources. While they play a vital role in agriculture, their rights to land ownership are limited due to cultural norms.³⁷⁷

17. Education data and analysis

- i. *Educational status of girls and boys, adult literacy rate (disaggregated by sex)*
- ii. *Do women have equal access to education, technical knowledge, and/or skill upgradation?*

Ghana has a high net enrolment rate of 86% in primary education but faces challenges at the secondary level where the rate drops to 57% and again at the tertiary level with only 20% enrolment. Gender gaps in educational attainment are typically minimal during primary school but become more pronounced at the secondary school level. In 2018, the primary completion rate in Ghana was 88% for females as well as for males in Ghana was 88%, according to data from the World Bank.

Ghana faces a gender gap in literacy, with a higher adult literacy rate for males (84%)³⁷⁸ compared to females (76%) in 2020.³⁷⁹ According to the World Bank, 73.5% of girls and 74.6% of boys' complete lower secondary school in Ghana as of 2019 data.³⁸⁰

Women do not have equal access to education, technical knowledge, and/or skill upgradation, for the following reasons. Including early marriage which contributes to education inequality. This cultural norm can result in girls dropping out of school and not completing their education. According to the World Bank, 64 of every 1,000 girls ages 15-19 gave birth in Ghana.³⁸¹

In addition, numerous girls lack access to education primarily due to factors such as poverty, gender biases, child labour, inability to accommodate girls' menstrual cycles at school,³⁸² and the significant distances to schools³⁸³

Limited opportunities hamper girls, since training programs may be geared towards traditionally male fields, limiting options for women. Societal expectations can discourage women from pursuing technical careers. In Ghana, only 14% of university students are female, and women comprised 26% of PhD graduates in 2018. This imbalance is evident in the leadership of the Ghana Academy of Arts and Sciences, where, over its 52-year history, only 3 out of 20 presidents have been women^{384 385}

³⁷⁷ [Isaac, 2016](#)

³⁷⁸ [World Bank Open Data](#)

³⁷⁹ [World Bank Open Data](#)

³⁸⁰ [World Bank Gender Data Portal](#)

³⁸¹ [World Bank Gender Data Portal](#)

³⁸² [Kumbeni et al., 2021](#)

³⁸³ [UNICEF, n.d.](#)

³⁸⁴ [UNDP, 2022](#)

³⁸⁵ [UNDP, 2022](#)

18. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

According to the World Bank, the country's GDP was projected to be 4.6% in 2023, reflecting a stable economic growth trajectory. Despite the challenges posed by various factors, such as fluctuations in oil revenues, the country maintained its fiscal consolidation efforts. Additionally, total revenues and grants reached 15.7% of GDP in 2023, remaining consistent with the previous year's levels despite the economic uncertainties.³⁸⁶ In 2022, Ghana had a Human Development Index (HDI) value of 0.602. This value suggests that the country has made progress in these key areas but still has room for improvement. It provides an indication of Ghana's overall level of human development relative to other countries.³⁸⁷

Reflecting the limited access to education and skills development for women, Ghana ranked 100th out of 146 countries according to The Global Gender Gap Index 2023. The report assigned a score of 0.688 with 1 representing complete parity), highlighting the ongoing challenges to gender equality in Ghana.³⁸⁸ In 2016, according to the \$2.15 per day poverty line adjusted for purchasing power parity (PPP), 25.2% of Ghana's population lived in poverty. In 2022, 45.6% of the population experienced multidimensional poverty in Ghana.³⁸⁹ In 2019, 34.8% of households in Ghana were female-headed, highlighting the presence of women in leadership roles within families, but not necessarily equal opportunities. Poverty disproportionately affects women due to limited access to education and economic opportunities.³⁹⁰ In 2021, the Gender Gap Index score for Ghana stood at 0.67, indicating a 33% disparity between females and males in access to opportunities within the country. This positioned Ghana 23rd out of 35 nations in Sub-Saharan Africa. Thus, the scores exhibited a consistent decline over the examined period, starting from 0.71 points in 2016. In 2023, Ghana's international poverty rate is estimated at 31.4%, showing a 4-percentage-point increase from the previous year.³⁹¹ Despite facing challenges such as macroeconomic crises and debt distress, efforts are being made to tackle poverty and uplift living standards for the population³⁹²

In Sub-Saharan Africa, specifically in Ghana, there is an 8% gender gap in financial inclusion. The socio-economic status remains low among women. The IFC research conducted in Ghana revealed a significant 30% disparity in the adoption of mobile money services between men and women. When questioned about their non-usage of mobile money services, women predominantly cited financial constraints as the primary hindrance. Consequently, male borrowers, on average, secured larger loan amounts.³⁹³

³⁸⁶ [World Bank - Ghana](#)

³⁸⁷ [Human Development Index | Human Development Reports](#)

³⁸⁸ [WEF_GGGR_2023](#)

³⁸⁹ [UNDP, 2020](#)

³⁹⁰ [World Bank Open Data](#)

³⁹¹ [World Bank](#)

³⁹² [World Bank](#)

³⁹³ [IFC, n.d](#)

In 2017, 53.7% of women and 61.8% of men in Ghana had access to financial accounts, revealing a gender gap in financial inclusion within the country. Interestingly, the female account ownership rate in Ghana surpassed that of Sub-Saharan Africa as a whole. Meanwhile, in Sub-Saharan Africa, 48% of males and 37% of females had accounts, underlining consistent disparities in financial service access across the region.³⁹⁴ According to The Mobile Gender Gap Report, 2023, 92% of males own mobile phones, compared to 86% of females.³⁹⁵ Moreover, women in Ghana are 7% less likely than men to own a mobile phone, but 26% less likely to use mobile internet.³⁹⁶ The report also stated, that 75% of female internet users in Ghana only access the internet via a mobile phone compared to 58% of male users.

³⁹⁴ [Ghana - World Bank Gender Data Portal](#)

³⁹⁵ [The-Mobile-Gender-Gap-Report-2023](#)

³⁹⁶ [The-Mobile-Gender-Gap-Report-2023](#)

SECTOR-SPECIFIC DATA AND ANALYSIS

19. Agri-business data analysis

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regard to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*
- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women - are there female entrepreneurs? How hard is it for them to attract capital?*

Agriculture is a significant contributor to Ghana's economy, employing a large portion of the population and serving as the primary source of income for many, especially in rural areas. According to the World Bank, more men are employed in the agricultural sector. In 2022, 40% of the entire population in Ghana were employed in the agricultural sector in Ghana.³⁹⁷ Ghana's workforce in 2022 reflected a gender gap in agricultural employment. Data from the World Bank shows that while 43% of employed males³⁹⁸ were involved in agriculture, only 37% of employed females³⁹⁹ worked in the agricultural sector. This highlights a potential under representation of women in a key sector of the Ghanaian economy.

Employment in agriculture (% of total employment)	40%
Employment in agriculture, male (% of male employment)	43%
Employment in agriculture, female (% of female employment)	37%

Table 15: Employment in agriculture in Ghana

Gender disparities exist in Ghana in the agricultural sector. This is due to traditional inheritance systems. Traditional inheritance systems often favour men, especially regarding land ownership in patrilineal societies⁴⁰⁰. They hold more control over decision-making related to these resources.

³⁹⁷ [World Bank Open Data](#)

³⁹⁸ [World Bank Open Data](#)

³⁹⁹ [World Bank Open Data](#)

⁴⁰⁰ [Ankrah, Freeman & Afful, 2020](#)

While women face challenges accessing land, credit, and financial resources. While they play a vital role in agriculture, their rights to land ownership are limited due to cultural norms.⁴⁰¹

In Ghana specifically, few women own land with secure tenure. This unequal access to land, labour, and capital ultimately restricts women's ability to contribute fully to Ghana's agricultural sector⁴⁰²

In numerous countries, extension services serve as a key example of formal institutions crucial for bolstering small-scale agriculture and attaining both national and household food security. These services have proven to enhance farmers' agricultural knowledge and abilities, facilitate the adoption of new technologies, and influence farmers' attitudes. Moreover, agricultural extension services contribute to community development by fostering human and social capital, facilitating market access, and collaborating with farmers to promote sustainable natural resource management.⁴⁰³

Antwei-Agyei & Stinger (2021)⁴⁰⁴ stated in a paper, that farmers' participation in agricultural extension programs in Ghana's northern region resulted in enhanced welfare, primarily evidenced by increased income levels. They also highlighted the pivotal role of agricultural extension in fostering the adoption of soil improvement technologies. Their study highlighted that access to extension services notably facilitated the adoption of chemical fertilizers.⁴⁰⁵

Additionally, Antwei-Agyei & Stinger (2021)⁴⁰⁶ found that a significant obstacle to efficient extension services is the insufficient availability of resources, lack of transportation for extension agents, inadequate extension materials, high agent-to-farmer ratio, limited funds for climate change adaptation, farmer resistance to change and complex land tenure arrangements.⁴⁰⁷ Three main barriers that stood out are as follows:

First, most farming communities are situated far from district capitals, where most extension agents reside. Consequently, extension agents rely on transportation to reach these remote communities. Regrettably, many agents lack personal means of transport. Although the Ministry of Food and Agriculture has provided motorcycles to some agents to enhance their mobility, a considerable portion of them still lack transportation resources.⁴⁰⁸ Second, insufficient funds hinder the implementation of climate change adaptation practices, as smallholder farmers lack resources for these measures. Poverty levels and limited access to credit further compound the issue. This broader resourcing challenge impacts extension outcomes and hinders the uptake of adaptation strategies suggested by extension agents. Last, farmers' reluctance to adopt new technologies and innovations poses a barrier to effective extension services. Social beliefs and values, as well as past negative experiences with innovations, contribute to resistance to change. This reluctance undermines efforts to promote resilience-building practices among farming households.⁴⁰⁹

According to FAO (2011), women's farm yield can improve by 20–30 percent if they are given the same productivity resources as their male counterparts. In this regard, directing policies to areas that may improve women's agricultural productivity would greatly benefit the country towards food

⁴⁰¹ [Ankrah, Freeman & Afful, 2020](#)

⁴⁰² [Ankrah, Freeman & Afful, 2020](#)

⁴⁰³ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁴ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁵ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁶ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁷ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁸ [Antwi-Agyei & Stinger, 2021](#)

⁴⁰⁹ [Antwi-Agyei & Stinger, 2021](#)

sustainability, women's empowerment, and closing of the gender productivity gap.⁴¹⁰ Despite women having difficulties obtaining land, development policy narratives about gender in African agriculture have emphasised that women tend to farm more for subsistence while men tend to farm more for cash⁴¹¹ A study by Verillo (2020)⁴¹² also found that male smallholders described their primary farming objective as being to produce enough food to feed their family, while women smallholders tended to describe their farming largely in terms of cash generation.

As mentioned previously, the agricultural sector has been a cornerstone of Ghana's recent economic growth, serving as the primary source of income for a significant portion of the population, particularly those in lower socioeconomic brackets. However, a stark disparity exists, as poverty rates in the northern regions are demonstrably higher than the national average. Furthermore, chronic food insecurity remains a critical challenge in these areas. In recognition of these disparities, the International Fund for Agricultural Development (IFAD) has made significant contributions to Ghana's agricultural sector. Since 1980, IFAD has invested a cumulative total of US\$271.5 million across 17 projects and programs, positively impacting over 3.5 million households.⁴¹³ IFAD's projects aim to, support smallholder farmers, a critical segment of Ghana's agricultural sector, promote inclusive and sustainable institutions for long-term growth, encourage pro-poor investments and policies and foster innovation and learning within the sector.⁴¹⁴

Moreover, on the 6th of April 2021, AGRA held a VALUE4HER program networking event in Accra, Ghana. This gathering aimed to connect participants, find ways to boost women's role in agribusiness and raise awareness of the VALUE4HER program. It was a hybrid event with 183 participants, including leading Ghanaian women entrepreneurs, public and private sector representatives, agricultural financial institutions, policymakers, and development investors. Ghanaian women navigate a complex web of challenges that restrict their full participation in agribusiness. Low business confidence often steers them towards less profitable local markets. Factors like a lack of confidence, risk aversion, and the burden of domestic duties, combined with gender bias in the business environment, create significant obstacles to their entrepreneurial aspirations and performance. Additionally, limited technical skills and education hold them back. Many lack access to training, new technologies, and information on modern farming techniques, post-harvest practices, and marketing. This often results in low agricultural productivity and poor-quality products that struggle to compete in high-value markets. Further compounding these issues is limited access to finance. While some women-focused financial products exist, most rural women and women's associations struggle to meet stringent loan requirements or navigate bureaucratic processes. This confines them to relying on microfinance approaches with restricted capital, hindering their ability to invest in growth and compete effectively.⁴¹⁵

Following the 2X Criteria for Ghana, specifically considering Small and Medium Enterprises (SMEs) operating in the Agribusiness and Food sector. These thresholds provide minimum requirements for global gender lens investment and organisational practices for companies and investors of all sizes.

⁴¹⁰ [Adu Boahen, Boateng Dankwah & Berko, 2024](#)

⁴¹¹ [Verillo, 2020](#)

⁴¹² [Verillo, 2020](#)

⁴¹³ [IFAD - Ghana](#)

⁴¹⁴ [IFAD - Ghana](#)

⁴¹⁵ [AGRA](#)

Entrepreneurship & Ownership	Businesses established by women (or a group of women) that maintain active leadership positions and have at least 50% female ownership.
Leadership	The company has a minimum of 40% women in senior leadership or 30% women on the board.
Employment	A workplace with a female workforce of at least 50% that implements at least one additional high-quality employment practice that goes beyond legal mandates.
Products & Services	Provides products or services that empower and improve the lives of women and girls.
Supply Chain	Explicit commitment to women in the supply chain with at least one strong, legal-exceeding employment practice. Supply Chain prioritises women's empowerment and offers at least one high-quality benefit beyond legal requirements.
Governance	Three practices are required to demonstrate a focus on gender equality, addressing each key area. 1) Strategic action 2) Management systems 3) Data

Table 16: 2X Criteria for Ghana⁴¹⁶

20. Climate change and agriculture

- i. Will there be any anticipated differences in men’s and women’s vulnerability and adaptive capacity to climate change? If so, what are these?*
- ii. How does climate change affect female farmers vs male farmers?*
- iii. Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- iv. Any research on how women respond to shocks? Does less access to capital mean harder time recovering?*

Ghana, situated along the Atlantic Ocean and sharing borders with Togo, Cote d’Ivoire, and Burkina Faso, spans a total land area of 239,460 square kilometres and is also positioned near the equator. The landmass comprises 69% agricultural land and 41% forested areas, with only 0.2% designated as irrigated agricultural land. The country's heavy reliance on agriculture poses challenges to livelihoods, particularly worsening from the coastal regions to the Northern Savannah. Furthermore,

⁴¹⁶ [2X Criteria — 2X Challenge](#)

the issue of climate change poses a threat, promising disruptions to various sectors including the electricity system, cash crop production, urban migration, livelihoods of smallholder farmers, and the coastline.⁴¹⁷

The negative impact of climate change has been widely documented by policy makers and researchers such as the Intergovernmental Panel on Climate Change (IPCC). Evidence shows that the already vulnerable societies, individuals, and classes are more prone to the threats and impacts of climate change.⁴¹⁸

The impacts of climate change are often felt more acutely by women than by men. This disparity arises from several factors, including unequal access to economic resources like land and financial capital, entrenched cultural norms and social beliefs, along with existing political and social discrimination, disadvantage women. Their lower socio-economic standing often translates to limited resources for adapting to the challenges posed by climate change.⁴¹⁹

In Ghana specifically, the situation for female farmers regarding climate change is particularly concerning due to the interplay of traditional gender roles and environmental challenges. The section below will explain why female farmers are more vulnerable.

Unequal land access: Ghanaian customary land ownership typically favours men. Women may farm on plots granted by husbands and/or fathers, which are often less fertile and further from their homes⁴²⁰. They may experience reduced crop yields, increased vulnerability to crop failures, and heightened economic insecurity.

Additionally, limited **access to resources, finance and decision making** also hampers women. Modern democracies often lack gender balance in leadership, resulting in policies that may favour men's needs.⁴²¹ Women are excluded from decision making policies.⁴²² Decisions like what crops to plant, which inputs to use, and fertilizer application depend heavily on factors like bargaining power, access to resources, and decision-making rights. Traditional farming communities often restrict women's access to these crucial factors, limiting their ability to participate on equal footing with men.⁴²³ Climate change adaptation often requires investment in new technologies and practices. This could include drought-resistant seeds, irrigation systems, or early warning systems. Without access to loans or financial resources, women struggle to adopt these strategies, hindering a woman's ability to implement sustainable farming practices, invest in soil conservation and measures to mitigate the effects of climate change on their land⁴²⁴ or invest in essential climate-resilient technologies like drought-resistant seeds or irrigation systems.⁴²⁵

Furthermore, **economic disadvantages and wage discrimination: Women are more likely to be unemployed and earn lower wages compared to men.** Due to higher poverty levels, women often lack the resources to adapt to climate change, making them more likely to experience severe impacts.⁴²⁶ **Knowledge Gap:** Women may have less access to training and education on climate-

⁴¹⁷ [World Bank - Climate Change Knowledge Portal](#)

⁴¹⁸ [Adzawla et al., 2019](#)

⁴¹⁹ [Adzawla et al., 2019](#)

⁴²⁰ [Ankrah, Freeman & Afful, 2020](#)

⁴²¹ [Adzawla et al., 2019](#)

⁴²² [Azumah, Nachinaab, & Adongo, 2022](#)

⁴²³ [Adu Boahen et al., 2024](#)

⁴²⁴ [Ankrah, Freeman & Afful, 2020](#)

⁴²⁵ [Azumah, Nachinaab, & Adongo, 2022](#)

⁴²⁶ [Adzawla et al., 2019](#)

smart agriculture practices compared to men. This knowledge gap can significantly hinder their ability to adapt effectively to changing weather patterns and resource scarcity.⁴²⁷

21. Vulnerable subgroups in Agriculture:

Disabled people are one of Ghana's largest oppressed groups. In Ghana, over 700,000 individuals have disabilities, and these households with disabled members experience a poverty rate exceeding ten times that of other households.⁴²⁸

A 2019 Global Burden of Disease (GBD) study indicates a substantial prevalence of mental health conditions in Ghana. The study estimates that approximately 2.6 million Ghanaians, constituting 10.7% of the national population, live with mental health conditions such as schizophrenia, bipolar disorder, or major depressive disorder. Despite this significant number, access to treatment remains a critical challenge. Only an estimated 2% of Ghanaians with a mental health condition receive the necessary treatment.⁴²⁹

People with disabilities in Ghana face many challenges including, the lack of access to education and employment opportunities, stigma and discrimination, physical barriers that make it difficult to get around, and lack of access to healthcare and other essential services. However, several organisations are working to help people with disabilities in Ghana. Here are a few of them:

1. The Ghana Federation of Disability Organisations (GFDO) is an umbrella organisation that represents the interests of people with disabilities in Ghana. It works to promote the rights of people with disabilities and to improve their access to education, employment, and other essential services.⁴³⁰
2. The Presbyterian Relief Services (PRS) is a Ghanaian non-governmental organisation (NGO) that works to empower people with disabilities. It provides a variety of services, including education, skills training, and microfinance loans.⁴³¹
3. The Leprosy Research Institute (LRI) is a Ghanaian research institute that works to improve the lives of people with leprosy and other disabilities. It provides a variety of services, including medical care, rehabilitation, and social support.⁴³²
4. On the 5th of March 2023, Ghana's Disability Rights organisation called on policymakers to implement employment equity policies to transform disability inclusion.⁴³³
5. The Ghana Enterprise Agency (GEA) launched a Persons With Disabilities (PWD) Enterprise Support Programme on the 6th of June 2023, to help improve businesses owned by PWDs.⁴³⁴ This project falls under the World Bank and supported the Ghana Economic Transformation Project and will provide a grant worth about GH¢12 million as well as technical support to 150 businesses owned by PWD. The programme will mainly focus on agribusiness, transport and logistics, hospitality and Information Communication Technology, and construction firms.⁴³⁵

⁴²⁷ [Adzawla et al., 2019](#)

⁴²⁸ [Disability and Poverty in Ghana: A Fight for Education - The Borgen Project](#)

⁴²⁹ [Mwangi et al., 2023](#)

⁴³⁰ [Ghana Federation of the Disabled - Disability Organisations](#)

⁴³¹ [Presbyterian Relief Services and Development](#)

⁴³² [Leprosy Research Initiative - Research priorities](#)

⁴³³ [GNA, 2023](#)

⁴³⁴ [GNA, 2023](#)

⁴³⁵ [GNA, 2023](#)

22. Organisations that Support Women Entrepreneurs in Specific Country (focus on the agriculture sector)

Organisation	Description
Agrihouse Foundation Agribusiness is rising ⁴³⁶	This organisation is a driving force for positive change within the agricultural sector. Dedicated to its advancement, they prioritise a multi-faceted approach. Their core activities focus on empowering all stakeholders within the agricultural system by fostering capacity building and fostering innovation. These efforts are realised through meticulously designed programs and initiatives that aim to maximise social impact and elevate agriculture's standing as a critical industry. Moreover, the organisation actively engages with a broad spectrum of participants, encompassing students, women farmers, established farming associations, and agribusinesses – the entire value chain, in essence. Through this comprehensive approach, they strive to cultivate a more positive and informed public perception of agriculture's vital role in society.
Ghana Federation of Forest and Farm Producers – A national consortium of Forest and Farm Producer Organisations ⁴³⁷	The Ghana Federation of Forest and Farm Producers (GhaFFaP) serves as a national umbrella organisation for Forest and Farm Producer Organisations (FFPOs) across Ghana. The GhaFFaP is driven by its members' collective ambition to achieve three key objectives: establishing prosperous forest and farm enterprises, shaping national policy towards sustainable practices, and fostering landscapes across Ghana's ecological zones that are resilient to climate change.
Ghana UN Women – Africa ⁴³⁸	UN Women Ghana employs a multifaceted approach to empower women economically. This includes collaborating with women smallholder farmers to implement Good Agricultural Practices (GAP) and minimise post-harvest losses.
Women Farmers in Ghana Gain the Skills and Confidence to Improve Local Economy Feed the Future ⁴³⁹	Feed the Future is promoting gender equality in Ghana by training women to practice improved agricultural techniques, good nutrition, and sound business management.

Table 17: Organisations that support women in agriculture

⁴³⁶ [Agrihouse Foundation | Agribusiness is rising](#)

⁴³⁷ [Ghana Federation of Forest and Farm Producers – A national consortium of Forest and Farm Producer Organisations \(ghaffap.org\)](#)

⁴³⁸ [Ghana | UN Women – Africa](#)

⁴³⁹ [Women Farmers in Ghana Gain the Skills and Confidence to Improve Local Economy | Feed the Future](#)

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

Morocco is a country located in the northwest corner of the African continent, bordered by the Atlantic Ocean and the Alboran Sea to the west, Algeria to the east, and Western Sahara to the south.⁴⁴⁰ The country has a population of 38.2 million inhabitants in 2024.⁴⁴¹ According to data from the United Nations Population Fund (UNFPA), the demographic distribution of Morocco's population reveals that approximately 26% are aged between 0-14 years⁴⁴², signifying a substantial portion of youth within the country. Additionally, around 66% fall within the working-age bracket of 15-64 years⁴⁴³, indicating a significant workforce. Only a small portion (8%) of the population is 65 years or older.⁴⁴⁴ There is an equal gender distribution in Morocco's population, with approximately 50% males⁴⁴⁵ and 50% females.⁴⁴⁶

In 2022, Morocco had a Human Development Index (HDI) value of 0,698 (higher values generally indicate higher levels of development). A value of 0.698 suggests that Morocco falls within a certain range of human development.⁴⁴⁷

Over the past 15 years, Morocco has experienced significant economic and developmental advancements. The Gross Domestic Product (GDP) per capita has shown steady growth, averaging 3.2%. Additionally, the country is benefiting from a demographic dividend. This is a situation where a country experiences economic growth due to a shift in its population age structure. Despite a reduction in population growth to 1.25% between 2004 and 2014, the dependency ratio has decreased by half and is expected to remain low until 2030.⁴⁴⁸

Morocco's dependence on agriculture provides an opportunity for the ARAF II Fund to support sustainable agri-business and therefore impact smallholder farmers.

⁴⁴⁰ [The World Bank](#)

⁴⁴¹ [UNFPA, 2024](#)

⁴⁴² [UNFPA, 2024](#)

⁴⁴³ [UNFPA, 2024](#)

⁴⁴⁴ [UNFPA, 2024](#)

⁴⁴⁵ [World Bank Open Data](#)

⁴⁴⁶ [World Bank Open Data](#)

⁴⁴⁷ [Human Development Index](#)

⁴⁴⁸ [World Bank Open Data](#)

23. Health data and analysis

- i. *What is the maternal mortality rate, infant mortality rate, life expectancy (disaggregated by sex)*

Accessing quality medical care remains a notable challenge, especially in rural regions. The uneven allocation of resources, insufficient funding, shortages of healthcare professionals, and the increasing prevalence of non-communicable diseases present significant hurdles.⁴⁴⁹ To address this issue, Morocco is currently enacting one of the world's most ambitious and comprehensive health system reforms, underscoring its dedication to developing human capital. This reform is set to enhance health outcomes and the quality of healthcare services by fostering improved responsiveness across all levels of the healthcare system.⁴⁵⁰ Morocco's maternal mortality ratio has improved from 244 in 200 to 72 in 2020.⁴⁵¹ Maternal mortality in Morocco is higher than its regional average.⁴⁵² The overall infant mortality rate was recorded at 15 deaths per 1,000 live births,⁴⁵³ with a slight gender disparity revealing that male infants faced a slightly higher mortality rate of 17 deaths per 1,000 live births⁴⁵⁴ compared to females, who experienced 14 deaths per 1,000 live births⁴⁵⁵. Despite these challenges, the population demonstrated relatively favourable life expectancies at birth, with males expected to live an average of 73 years⁴⁵⁶ and females 78 years.⁴⁵⁷ These statistics underscore both achievements and areas for improvement in the healthcare system, emphasising the need for targeted interventions to reduce maternal and infant mortality rates further and promote longer, healthier lives for all members of the community.

Morocco had a Universal Health Coverage (UHC) of 69 in 2021.⁴⁵⁸ This indicates that around 69% of Morocco's population had access to essential health services without encountering significant financial obstacles. This suggests a moderate level of healthcare accessibility and affordability within the country. However, achieving universal health coverage requires continuous efforts to improve healthcare infrastructure, expand service coverage, and address disparities in access across different regions and socio-economic groups. Therefore, while a UHC index of 69 reflects progress, there would still be a need for ongoing initiatives to ensure that all Moroccans can access quality healthcare services when needed, regardless of their financial status.⁴⁵⁹

⁴⁴⁹ [Mahdaoui & Kissani, 2023](#)

⁴⁵⁰ [World Bank](#)

⁴⁵¹ [World Bank Data Portal](#)

⁴⁵² [World Bank Gender Data Portal](#)

⁴⁵³ [World Bank Open Data](#)

⁴⁵⁴ [World Bank Open Data](#)

⁴⁵⁵ [World Bank Open Data](#)

⁴⁵⁶ [United Nations Population Fund](#)

⁴⁵⁷ [United Nations Population Fund](#)

⁴⁵⁸ [United Nations Population Fund](#)

⁴⁵⁹ [United Nations Population Fund](#)

Maternal mortality ratio (modelled estimate, per 100,000 live births)	72 deaths per, 100,000 live births ⁴⁶⁰
Mortality rate, infant (per 1,000 live births) (2021)	15 deaths per 1,000 live births ⁴⁶¹
Mortality rate, infant (per 1,000 live births) (2021)	17 deaths per 1,000 live births ⁴⁶² for males and 14 deaths per 1,000 live births for females ⁴⁶³
Life expectancy at birth	73 years ⁴⁶⁴ for males and 78 years ⁴⁶⁵ for females

Table 18: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Morocco

24. Sexual Exploitation, Abuse and Harassment (SEAH) Laws, Policy, Trends, And Data

i. Any info on SEAH in the workplace? Trends on incidents?

According to a study done by Bouhout (2020), the legal system in Morocco faces the challenge of reconciling Western democratic ideals with deeply rooted Islamic beliefs and cultural traditions. This duality presents obstacles to the implementation of policies aimed at defining gender roles to protect women's rights and interests. As a result, gender inequality in Morocco is primarily a consequence of the prevailing patriarchal society, which is further reinforced by a legal system that does not adequately address women's issues.⁴⁶⁶

Despite efforts made by the Moroccan government to implement equality policies, women's rights continue to be inadequately protected, particularly due to shortcomings within the judicial system and public administration.⁴⁶⁷ Stemming from longstanding patriarchal traditions, women encounter persistent oppression, particularly in seeking justice for instances of domestic violence. Their political consciousness and willingness to challenge such violence are hampered by societal norms, posing further obstacles to addressing gender inequality effectively.⁴⁶⁸

Bouhout (2020) also stated, that gender-based domestic violence in Morocco appears in various forms and arises from multiple factors, including, but not limited to, substance abuse, a deeply entrenched patriarchal society, and economic disparities. Additionally, Morocco's legal framework

⁴⁶⁰ [World Bank Data Portal](#)

⁴⁶¹ [World Bank Open Data](#)

⁴⁶² [World Bank Open Data](#)

⁴⁶³ [World Bank Open Data](#)

⁴⁶⁴ [United Nations Population Fund](#)

⁴⁶⁵ [United Nations Population Fund](#)

⁴⁶⁶ [Bouhout \(2020\)](#)

⁴⁶⁷ [Bouhout \(2020\)](#)

⁴⁶⁸ [Bouhout \(2020\)](#)

fails to recognise marital rape or psychological abuse as criminal offences, with rape being categorised more as a moral transgression than a violation of individual rights, as outlined in Articles 486/488 of the penal code.⁴⁶⁹

Morocco has integrated international human rights standards into its legal system, but challenges persist due to gender biases. Reforms to the Family Code and the adoption of legislation such as "Elimination of Violence Against Women" demonstrate efforts to promote gender equality.⁴⁷⁰ However, traditional norms, including polygamy and child marriage, hinder effective protection against domestic violence.⁴⁷¹ According to Bouhout (2020)⁴⁷² access to justice is impeded by patriarchal attitudes and legal gaps, particularly affecting rural women. Despite legal advancements, enforcement issues persist, contributing to underreporting and unresolved cases of domestic violence.⁴⁷³ Overall, systemic barriers and societal norms continue to undermine women's rights and access to justice in Morocco.⁴⁷⁴

However, non-governmental organisations (NGOs) play a crucial role in advocating for women's rights and bridging gaps within the legal system. These organisations contribute significantly to raising awareness, providing support services, and advocating for policy reforms aimed at better protecting women from gender-based violence.⁴⁷⁵

In September 2018, Morocco passed a new law aimed at combating violence against women. This law includes a ban on forced marriage, provisions against sexual harassment in public places, and tough penalties for certain forms of violence. However, SEAH against women still occurs in the workplace and educational institutions in Morocco.⁴⁷⁶

According to the International Labour Organisation. The longstanding issue of sexual harassment against female students in Moroccan universities has resurfaced due to a recent scandal. Professors at a business school in Oujda are accused of demanding sexual favours for good grades. This incident highlights a wider problem, with similar reports emerging from universities across the country for years. Fear of social stigma and legal limitations often prevent victims from reporting the abuse.⁴⁷⁷ Official statistics on workplace violence and harassment in Morocco are difficult to find, with articles about SEAH stories in the workplace, however, statistics are limited.

In evaluating the status of women's rights and well-being, several pertinent statistics offer insight. Notably, 13.7% of women aged 20–24 were married or in a union before attaining the age of 18,⁴⁷⁸ indicating a prevalence of early and potentially coerced unions.

A 2019 national survey on gender-based violence and as reported by UN Women indicates, that over the previous 12 months, 57% of women had been victims of various forms of GBV, this is a decline

⁴⁶⁹ [Bouhout \(2020\)](#)

⁴⁷⁰ [Bouhout \(2020\)](#)

⁴⁷¹ [Bouhout \(2020\)](#)

⁴⁷² [Bouhout \(2020\)](#)

⁴⁷³ [Bouhout \(2020\)](#)

⁴⁷⁴ [Bouhout \(2020\)](#)

⁴⁷⁵ [Bouhout \(2020\)](#)

⁴⁷⁶ [Human Rights Watch, 2018](#)

⁴⁷⁷ [Latrech, 2021](#)

⁴⁷⁸ [UN Women Data Hub](#)

from 62.8% in 1999.⁴⁷⁹ However, economic violence against women increased from 8% to 15% and sexual violence from 9% to 14% from 1999 to 2019.⁴⁸⁰ 6.1 million (52%) of women reported experiencing intimate partner violence.⁴⁸¹ In general, both men (55%) and women (73%) indicated that they were ‘under the impression’ that GBV had increased.⁴⁸²

Furthermore, the adolescent birth rate remains high at 19 per 1,000 women aged 15–19,⁴⁸³ suggesting potential gaps in access to reproductive health services and education. Encouragingly, 72% of women of reproductive age (15-49 years) have their need for family planning met with modern methods,⁴⁸⁴ reflecting advancements in reproductive health services. However, the legal framework requires enhancement, with only 66.7%⁴⁸⁵ of legal frameworks promoting, enforcing, and monitoring gender equality under the SDG indicator—particularly regarding violence against women—currently established. These statistics collectively underscore the multifaceted challenges confronting women's rights and underscore the ongoing efforts necessary to achieve gender equality and effectively address violence against women.⁴⁸⁶⁴⁸⁷

Indicator	Measure (Morocco)
% women aged 20–24 years old who were married or in a union before age 18.	13.7% ⁴⁸⁸
% of women reporting that they had suffered various forms of GBV, in the past 12 months	57% ⁴⁸⁹
% intimate partner violence	52% ⁴⁹⁰
The adolescent birth rate x per 1,000 women aged 15–19.	19 ⁴⁹¹
% of women of reproductive age (15-49 years) had their need for family planning satisfied with modern methods.	72% ⁴⁹²

⁴⁷⁹ [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁸⁰ [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁸¹ [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁸² [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁸³ [UN Women Data Hub](#)

⁴⁸⁴ [UN Women Data Hub](#)

⁴⁸⁵ [UN Women Data Hub](#)

⁴⁸⁶ [UN Women Data Hub](#)

⁴⁸⁸ [UN Women Data Hub](#)

⁴⁸⁹ [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁹⁰ [ONU Femmes Maroc \(UN Women Morocco\), 2020](#)

⁴⁹¹ [UN Women Data Hub](#)

⁴⁹² [UN Women Data Hub](#)

% of legal frameworks that promote, enforce, and monitor gender equality under the SDG indicator, with a focus on violence against women, are in place.	66.7% ⁴⁹³
% of seats in parliament held by women	20.5% (2020) ⁴⁹⁴
% of indicators needed to monitor the SDGs from a gender perspective	46.7% (2020) ⁴⁹⁵

Table 19: Sexual exploitation, abuse, and Harassment (SEAH) trends and data in Morocco

25. Political and governing data and analysis

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

According to the World Economic Forum, Global Gender Gap Report 2023, Morocco is ranked 90th out of 146 countries in the Political Empowerment subindex and has a score of 0.165. The rank of 90th out of 146 countries indicates Morocco's position relative to other countries in terms of political empowerment for women. The score of 0.165 represents Morocco's score on the political empowerment index, which measures factors such as women's representation in parliament, ministerial positions held by women, and the number of years with a female head of state. A score of 0.165 suggests that there are significant gaps in political empowerment between men and women in Morocco, with room for improvement in areas such as women's representation in political leadership roles.⁴⁹⁶

The Women, Business, and the Law 2024 (WBL2024) index assesses the legal framework for women's participation in the economy across 190 economies, focusing on a woman's working life cycle. Morocco achieved a score of 75.6 out of 100, surpassing the regional average of 54.7 for the Middle East and North Africa. The highest score in the region was 91.3, achieved by Malta.⁴⁹⁷

In terms of constraints on freedom of movement, laws influencing women's decisions to work, and restrictions on women starting and managing businesses, Morocco achieves a perfect score. This indicates that the legal framework in these areas supports women's participation in the workforce and entrepreneurship without significant hindrances.⁴⁹⁸ However, in areas such as laws impacting women's pay, constraints related to marriage, regulations affecting women's employment post-childbirth, gender disparities in property and inheritance, and laws influencing the size of women's

⁴⁹³ [UN Women Data Hub](#)

⁴⁹⁴ [UN Women Data Hub](#)

⁴⁹⁵ [UN Women Data Hub](#)

⁴⁹⁶ [WEF GGGR \(2023\)](#)

⁴⁹⁷ [Women, Business and the Law \(2024\)](#)

⁴⁹⁸ [Women, Buisinees and the Law \(2024\)](#)

pensions, Morocco could contemplate reforms to enhance legal equity for women. Notably, Morocco receives one of its lowest scores in the Women, Business, and the Law 2024 (WBL2024) index for gender differences in property and inheritance (the Assets indicator). To address this, Morocco may consider reforms such as equalising inheritance rights between sons and daughters, ensuring parity in inheritance rights for surviving spouses regardless of gender, and acknowledging the value of non-monetary contributions. These steps could contribute to fostering greater gender equality within the legal framework concerning property and inheritance in Morocco.⁴⁹⁹

Law	Description
Code du Travail, Art. 181	A woman cannot work in a job deemed dangerous in the same way as a man. ⁵⁰⁰
Code du Travail, Art. 179	A woman cannot work in an industrial job in the same way as a man. ⁵⁰¹
Code de la famille, Arts. 89, 98 et 114	A woman cannot obtain a judgment of divorce in the same way as a man. ⁵⁰²
Code de la famille, Arts. 129-136	A woman does not have the same rights to remarry as a man. ⁵⁰³
Code de la famille, Arts. 342 et 348-351	Sons and daughters do not have equal rights to inherit assets from their parents. ⁵⁰⁴
Code de la famille, Arts. 342-344	Surviving female and male spouses do not have equal rights to inherit assets. ⁵⁰⁵

Table 20: Laws in Morocco

According to UN Women, in February 2021, only 20.5% of seats in parliament were held by women.⁵⁰⁶ On July 31, 2021, the Moroccan Parliament passed a reform that, despite not garnering significant attention, marked a significant stride in narrowing the country's gender disparity. This reform entailed an amendment to the law governing public limited companies (Law 19.20 amending and complementing Law 17-95) aimed at fostering gender-balanced representation in corporate governance bodies. It introduced mandatory quotas for female representation on the boards of

⁴⁹⁹ [Women, Business and the Law \(2024\)](#)

⁵⁰⁰ [Women, Business and the Law](#)

⁵⁰¹ [Women, Business and the Law](#)

⁵⁰² [Women, Business and the Law](#)

⁵⁰³ [Women, Business and the Law](#)

⁵⁰⁴ [Women, Business and the Law](#)

⁵⁰⁵ [Women, Business and the Law](#)

⁵⁰⁶ [UN Women Data Hub](#)

publicly traded companies, with a target of achieving at least 30% representation by 2024 and 40% by 2027.

The enactment of this law reflects exemplary collaboration among the government, parliament, and civil society, bolstered by the establishment of a task force by UN Women. This task force comprised women actively engaged in gender advocacy and several representatives from the 'Club des Femmes Administrators' in Morocco.

The World Bank, in alignment with its commitment to advancing economic inclusion for women and enhancing female participation in corporate governance structures, endorsed this commendable initiative. It was recognised as a pivotal component of the World Bank's \$450 million Digital and Financial Inclusion II budget support program to the Moroccan government in 2021.⁵⁰⁷ According to the World Bank, several factors such as inadequate job creation, limited employment opportunities, Gender-Based Violence (GBV), insufficient transportation options, and prevailing social norms, particularly affecting married women, serve as barriers hindering women's participation in the labour market.⁵⁰⁸

Opportunities: Women's representation in Moroccan political affairs remains inadequate, and even when elected, parliamentary procedures often hinder female Members of Parliament (MPs) from gaining significant influence.⁵⁰⁹ Although the gender quota system permits successful candidates to contest elections through this mechanism, it typically applies for only one term. Moreover, parliamentary communications and outreach primarily spotlight plenary sessions, where male MPs dominate visibility, overshadowing the substantive work conducted by committees and working groups, where women are more active and have greater opportunities.⁵¹⁰

In collaboration with the Moroccan Parliament, the Westminster Foundation for Democracy (WFD) has worked to strengthen women's voices, participation, effective influence, and recognised role in decision-making processes within parliament. This has been achieved through various strategic engagements, which will be explained.⁵¹¹ Training on women's political leadership: A two-day workshop was conducted utilising a toolkit named ABLE, designed to empower women parliamentarians in amplifying their voices and augmenting their impact. As well as Media training for women parliamentarians: WFD organised a training workshop for women MPs focused on refining communication skills.⁵¹² This program aligns with WFD's objectives regarding inclusion, particularly in promoting women's political leadership. It further strengthens the enduring relationship between the Parliament of Morocco and WFD, which has been active since 2011. WFD remains dedicated to reinforcing this partnership and continuing to prioritise the advancement of women's political leadership in Morocco.⁵¹³

⁵⁰⁷ [Mouline, Ozlu & Herzog \(2022\)](#)

⁵⁰⁸ [World Bank \(n.d.\)](#)

⁵⁰⁹ [WFD \(2023\)](#)

⁵¹⁰ [WFD \(2023\)](#)

⁵¹¹ [WFD \(2023\)](#)

⁵¹² [WFD \(2023\)](#)

⁵¹³ [WFD \(2023\)](#)

26. Employment data

- i. *Labor force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex)*

In 2022, Morocco's labour force participation rate, as estimated by the International Labour Organisation (ILO), stood at 47.7%, reflecting the percentage of the total population aged 15-64 actively engaged in the workforce (World Bank Data Portal, 2022). The labour force participation rate also varied by gender. In the Middle East & North Africa, the Labor force participation rate, by sex (% of population ages 15+) (modelled ILO estimate) is 71.3% for males and 19% for females.⁵¹⁴ Moreover, in Morocco, the labour force participation rate among females is 19.8% and among males is 68.3% for 2023.⁵¹⁵

In 2023, Morocco's employment landscape showed stark gender discrepancies. The overall employment-to-population ratio for individuals aged 15 and above was 40%, with males at 62.4% and females at 18%. Despite these figures, both genders faced unemployment, with females experiencing a rate of 11.2% of the female labour force and males at 9.3% (World Bank Data Portal, 2023).

Individuals engaged in vulnerable employment face a higher likelihood of lacking formal work agreements, social security coverage, and safety nets to buffer against economic uncertainties, rendering them more susceptible to poverty. In Morocco, vulnerable employment affects 53.9% of women and 43.8% of men as of 2022. The incidence of vulnerable employment is elevated for both genders in Morocco compared to the average rate across the Middle East and North Africa region (Male: 25.1% and Female: 22.3%).⁵¹⁶ It is important to note, that Morocco's vulnerable employment for females has improved in Morocco since 1991 (Males: 53.6% and Females: 53.6%).⁵¹⁷

Labour force participation rate, total (% of total population ages 15-64) (modelled ILO estimate)	47.7 (2022) ⁵¹⁸
Labour force participation rate, by sex (% of population ages 15+) (modelled ILO estimate)	19.8 ⁵¹⁹ females and 68.3 ⁵²⁰ males
Employment to population ratio, 15+, total (%) (modelled ILO estimate)	40 (Year: 2023) ⁵²¹

⁵¹⁴ [World Bank Gender Data Portal](#)

⁵¹⁵ [World Bank Gender Data Portal](#)

⁵¹⁶ [World Bank Gender Data Portal](#)

⁵¹⁷ [World Bank Gender Data Portal](#)

⁵¹⁸ [World Bank Open Data](#)

⁵¹⁹ [World Bank Gender Data Portal](#)

⁵²⁰ [World Bank Gender Data Portal](#)

⁵²¹ [World Bank Data Portal](#)

Employment to population ratio, 15+, (%) (modelled ILO estimate)	62.4% for males ⁵²² and 18% for females ⁵²³
Vulnerable employment	43.8% for males and 53.9% females ⁵²⁴
Unemployment, female (% of female labour force) (modelled ILO estimate) -	11.2 (Year: 2023) ⁵²⁵
Unemployment, male (% of male labour force) (modelled ILO estimate)	9.3 (Year: 2023) ⁵²⁶

Table 21: Labor force participation rates and employment rates in Morocco

27. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention? – Research on data regarding caregiving, household chores etc.*
- iii. *What resources (economic, financial, physical, natural, and other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision-making processes? What types of decisions are made by women? What are the constraints (social, cultural, economic, political) that restrict women’s active participation in household and community level decision-making processes?*

According to Sadiqi (2011)⁵²⁷ in Morocco, cultural norms play a significant role in shaping expectations for both men and women. These expectations can influence social interactions and language use.⁵²⁸ **Traditional Gender Roles:** According to Sadiqi (2011)⁵²⁹ there is a prevailing belief in traditional gender roles, where men are often seen as the primary breadwinners and decision-makers, while women are expected to prioritise family responsibilities and domestic duties.⁵³⁰ **Limited Economic Opportunities for Women:** Despite progress, there's still a perception that certain professions or sectors are more suitable for men, leading to limited economic opportunities for women. This stereotype can affect women's participation in the workforce and their access to

⁵²² [World Bank Open Data](#)

⁵²³ [World Bank Open Data](#)

⁵²⁴ [World Bank Open Data](#)

⁵²⁵ [World Bank Open Data](#)

⁵²⁶ [World Bank Open Data](#)

⁵²⁷ [Sadiqi, 2011](#)

⁵²⁸ [Sadiqi, 2011](#)

⁵²⁹ [Sadiqi, 2011](#)

⁵³⁰ [Sadiqi, 2011](#)

leadership positions.⁵³¹ **Pressure for Marriage and Motherhood:** There's a cultural expectation for women to marry and fulfil traditional roles as wives and mothers at a relatively young age. This pressure can affect women's autonomy and decision-making regarding their personal and professional lives.⁵³² **Unequal Access to Resources and Economic Empowerment:** Women often face barriers to accessing resources and opportunities for economic empowerment, limiting their ability to participate fully in the workforce and contribute to the economy.⁵³³ **Workplace Inequality:** Discrimination in hiring practices, lower wages for equivalent roles, and limited opportunities for career progression are common challenges faced by women in the workplace in Morocco. These factors contribute to a gender wage gap and hinder women's professional advancement. **Gender Disparities in Education:** In some cases, cultural norms prioritise boys' education over girls', leading to disparities in literacy rates and educational attainment.⁵³⁴ Moreover, women often bear the primary responsibility for caregiving and household chores, including childcare, cooking, cleaning, and tending to elderly family members. These tasks are typically seen as part of women's traditional roles within the family. Women and girls in Morocco aged 15+ spend 20.8% of their time on unpaid care and domestic work, compared to 3% spent by men⁵³⁵

Table 5, below depicts the legal landscape surrounding property rights and inheritance in Morocco, as outlined in the “Code de la Famille,”⁵³⁶ reveals a complex interplay of gender equality and disparities. While certain provisions grant equal ownership rights to immovable property and administrative authority over assets during marriage to both men and women, others highlight significant gaps in inheritance rights.⁵³⁷ Despite granting spouses equal administrative authority over assets, the law falls short in ensuring parity in inheritance rights between sons and daughters, as well as between male and female surviving spouses. Additionally, the absence of provisions addressing the valuation of nonmonetary contributions further underscores the need for reforms to achieve greater gender equality within the legal framework governing property and inheritance in Morocco.⁵³⁸

Code de la famille, Art. 49	Do men and women have equal ownership rights to immovable property? - Yes ⁵³⁹
Code de la famille, Arts. 342 et 348-351	Do sons and daughters have equal rights to inherit assets from their parents? - No ⁵⁴⁰
Code de la famille, Arts. 342-344	Do female and male surviving spouses have equal rights to inherit assets? - No ⁵⁴¹

⁵³¹ [Sadiqi, 2011](#)

⁵³² [Sadiqi, 2011](#)

⁵³³ [Sadiqi, 2011](#)

⁵³⁴ [Moroccan Diaspora, 2024](#)

⁵³⁵ [UN Women Data Hub](#)

⁵³⁶

[TV5 MONDE, 204](#)

⁵³⁷ [TV5 MONDE, 2024](#)

⁵³⁸ [TV5 MONDE, 2024](#)

⁵³⁹ [Women, Business and the Law \(2024\)](#)

⁵⁴⁰ [Women, Business and the Law \(2024\)](#)

⁵⁴¹ [Women, Business and the Law \(2024\)](#)

Code de la famille, Art. 49	Does the law grant spouses equal administrative authority over assets during marriage? - Yes ⁵⁴²
No applicable provisions could be located	Does the law provide for the valuation of nonmonetary contributions? - No ⁵⁴³

Table 22: Laws on assets in Morocco

28. Education data and analysis

- i. *Educational status of girls and boys, adult literacy rate (disaggregated by sex)*
- ii. *Do women have equal access to education, technical knowledge, and/or skill upgradation? (access to technical knowledge and skills upgradation is discussed in agribusiness section 9)*

In primary education, both boys and girls in Morocco demonstrate high rates of enrolment and completion, with a total net enrolment rate of 99%⁵⁴⁴ and primary completion rates exceeding 100% for females and males.⁵⁴⁵ However, gender disparities become more apparent in lower secondary education, where completion rates for females (78%) surpass those of males (66.8%). Despite a slightly lower net enrolment rate in lower secondary education compared to primary, both genders still demonstrate strong participation. However, completion rates for males are notably lower than for females.

In upper secondary education, the total net enrolment rate decreases (77%), indicating some challenges in retaining students beyond lower secondary levels. Furthermore, in tertiary education, while females (49%)⁵⁴⁶ have a slightly higher enrolment rate compared to males (43%),⁵⁴⁷ both genders show lower enrolment rates compared to earlier levels of education.

Regarding literacy rates among adults, males (86%)⁵⁴⁸ have a higher percentage compared to females (69%),⁵⁴⁹ highlighting a gender gap in literacy despite progress in education at the primary and secondary levels. Overall, while there are significant achievements in primary education, addressing gender disparities in lower secondary completion rates and improving tertiary enrolment rates could contribute to further advancements in education equity in Morocco.

The World Bank recognises that ongoing discrepancies in access to education and resources impede the progress of women's human development.⁵⁵⁰

⁵⁴² [Women, Business and the Law \(2024\)](#)

⁵⁴³ [Women, Business and the Law \(2024\)](#)

⁵⁴⁴ [UNPF](#)

⁵⁴⁵ [World Bank Open Data](#)

⁵⁴⁶ [World Bank Open Data](#)

⁵⁴⁷ [World Bank Open Data](#)

⁵⁴⁸ [World Bank Open Data](#)

⁵⁴⁹ [World Bank Open Data](#)

⁵⁵⁰ [The World Bank Group \(2017\)](#)

Total net enrolment rate, primary education, percent, 2017-2023	99 ⁵⁵¹
Primary completion rate (% of relevant age group)	100% ⁵⁵² for males and 100 ⁵⁵³ for females
Total net enrolment rate, lower secondary education, percent, 2017-2023	96 ⁵⁵⁴
Lower secondary completion rate, (% of relevant age group)	66.8 for males (2022) ⁵⁵⁵ and 78 for females (2022) ⁵⁵⁶
Total net enrolment rate, upper secondary education, percent, 2017-2023	77 ⁵⁵⁷
School enrolment, tertiary (% gross)	43 for males (2022) ⁵⁵⁸ and 49 for females (2022) ⁵⁵⁹
Literacy rate, adult (% of sex ages 15 and above)	86 for males (2022) ⁵⁶⁰ and 69 for females (2022) ⁵⁶¹

Table 23: Education data of Morocco

29. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

In the Global Gender Gap Index 2023, Morocco was positioned at 136th out of 146 countries, earning a score of 0.621. Specifically in the category of Economic Participation and Opportunity, Morocco was ranked 141st, with a score of 0.404. These rankings highlight persistent challenges in achieving gender parity in economic participation and opportunities within the country.⁵⁶²

⁵⁵¹ [UNPF](#)

⁵⁵² [World Bank Open Data](#)

⁵⁵³ [World Bank Open Data](#)

⁵⁵⁴ [UNFP](#)

⁵⁵⁵ [World Bank Open Data](#)

⁵⁵⁶ [World Bank Open Data](#)

⁵⁵⁷ [UNPF](#)

⁵⁵⁸ [World Bank Open Data](#)

⁵⁵⁹ [World Bank Open Data](#)

⁵⁶⁰ [World Bank Open Data](#)

⁵⁶¹ [World Bank Open Data](#)

⁵⁶² [Global Gender Gap Report 2023 WEF](#)

The most recent survey data available for estimating Morocco's Multidimensional Poverty Index (MPI) are from 2017/2018. According to these estimates, 6.4% of Morocco's population, equivalent to 2,358 thousand people in 2021, live in multidimensional poverty. Additionally, 10.9% of the population, or 4,028 thousand people in 2021, are classified as vulnerable to multidimensional poverty. The intensity of deprivation in Morocco, represented by the average deprivation score among those in multidimensional poverty, is 42.0%. The MPI value, which adjusts the share of the population in multidimensional poverty by the intensity of deprivations, is 0.027. By comparison, Tunisia and Libya have MPI values of 0.003 and 0.007, respectively.⁵⁶³

In 2017, 16.8% of females and 41.5% of males in Morocco possessed an account. The disparity in account ownership between genders in Morocco, standing at 24.7, exceeds the gap across the Middle East & North Africa region, which is 18.8. Account ownership indicates the proportion of individuals who state having an account (either individually or jointly) at a bank or another financial institution, or who personally utilised a mobile money service within the last year.⁵⁶⁴

There were 43.47 million mobile connections in Morocco in January 2021. It is important to note that users had more than one mobile connection, so figures for mobile connections may exceed 100% of the total population.⁵⁶⁵ According to the World Bank, more men than women used a mobile phone or the internet to pay bills in 2021. In Morocco, the rate of female account ownership is lower than both the Middle East & North Africa average and that of the lower-middle-income group. Internet usage refers to the percentage of respondents who report using a mobile phone or the internet to pay bills within the last year. Specifically, in Morocco, the rate among females is 4.8%, while among males it's 9.8%. In the Middle East & North Africa, the rates are 22.1% for males and 13.5% for females.⁵⁶⁶ Internet usage denotes the percentage of respondents who report using a mobile phone or the internet to pay bills in the past 12 months.

⁵⁶³ [UNDP, 2024](#)

⁵⁶⁴ [World Bank Gender Data Portal](#)

⁵⁶⁵ [Kemp, 2021](#)

⁵⁶⁶ [World Bank Gender Data Portal](#)

SECTOR-SPECIFIC DATA AND ANALYSIS

30. Agri-business data analysis

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regard to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*
- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average. - under the agribusiness subsection.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women -are there female entrepreneurs? How hard is it for them to attract capital?*

According to the World Bank Data Portal, more females work in the agricultural sector than males. This is said, since in 2022, 26% of males⁵⁶⁷ compared to 48% of females⁵⁶⁸ were employed in the agriculture sector in Morocco. This is due to women in Morocco having limited ownership and control over larger assets such as land.

Individuals engaged in precarious employment often lack formal job arrangements, social safeguards, and financial safety nets, leaving them more susceptible to economic instability and poverty.

The World Bank has highlighted that women face lower access to finance, primarily due to disparities in ownership and control of physical assets between men and women. Moreover, gaps in human and social capital significantly influence women's ability to access finance. Additionally, the lack of access to finance and fewer opportunities to acquire technical skills often result in limited access to improved inputs, subsequently leading to lower yields in agriculture.⁵⁶⁹

A study done by Rachida & Meryem (2023) found that female workers in Morocco's agricultural sector are frequently hired informally, without formal employment contracts or social insurance coverage. Women mostly focus on housework, caring for the family and children, and involved in some subsistence farming⁵⁷⁰ According to the UN Women Data Hub, women and girls aged 15 and older allocate 20.8% of their time to unpaid care and domestic responsibilities, whereas men dedicate only 3% of their time to similar tasks.⁵⁷¹ The World Bank reported that in Morocco, women spend 7 times as much time on unpaid domestic and care work than men.⁵⁷²

⁵⁶⁷ [World Bank Open Data](#)

⁵⁶⁸ [World Bank Open Data](#)

⁵⁶⁹ [Rachida & Mereyn, 2024](#)

⁵⁷⁰ [Rachida & Meryem \(2023\)](#)

⁵⁷¹ [UN Women Data Hub](#)

⁵⁷² [UN Women Data Hub](#)

According to the International Labour Organisation, Women in Morocco spend 300 min daily on domestic services for their own final use within the household. No data regarding caregiving services to household members and community services and help to other households. Whereas men only spend 43 min daily on domestic services for own final use within the household. No data regarding caregiving services to household members and community services and help to other households.⁵⁷³

The World Bank has highlighted that women face lower access to finance, primarily due to disparities in ownership and control of physical assets between men and women. Moreover, gaps in human and social capital significantly influence women's ability to access finance. Additionally, the lack of access to finance and fewer opportunities to acquire technical skills often result in limited access to improved inputs, subsequently leading to lower yields in agriculture.⁵⁷⁴

In Morocco, the International Fund for Agricultural Development (IFAD)⁵⁷⁵ provides loans to help poor people in rural areas. They target farmers with small landholdings, those without land at all, small livestock producers, women in rural areas, and unemployed young people. Their focus is on the poorest parts of the country where rain-fed agriculture is the main way people make a living. This program works alongside the Moroccan government's Plan Maroc Vert to improve agriculture.⁵⁷⁶ The achieves this by involving rural communities in planning and by giving them the skills they need to manage their own projects; the IFAD makes it easier for people, especially women and young people, to get loans suitable for their small businesses, often through microfinance programs; they work with local groups like development associations, water user groups, women's organisations, and loan groups as well as they help farmers see agriculture as a business by showing them how to improve production and sell their products more effectively.⁵⁷⁷

Table 7, below provides the minimum requirements for global gender lens investment and organisational practices for companies and investors of all sizes.⁵⁷⁸

Topic	Criteria
Entrepreneurship & Ownership	<p>Women-led & owned: Founded by women with ongoing leadership OR majority women shareholders.</p> <p>Female founder(s) with control: Established by a woman/woman who remain active OR at least 50% women ownership.</p> <p>Women's ownership & leadership: Founded/controlled by women (active role or majority ownership).</p>

⁵⁷³ [ILO, 2018](#)

⁵⁷⁴ [Rachida & Mereyem \(2023\)](#)

⁵⁷⁵ [IFAD - Morocco](#)

⁵⁷⁶ [IFAD - Morocco](#)

⁵⁷⁷ [IFAD - Morocco](#)

⁵⁷⁸ [2X Criteria — 2X Challenge](#)

Leadership	At least 30% of senior management is women OR 30% of board members are women.
Employment	At least 35% of employees/workers are women AND at least one quality employment indicator in place beyond what is legally required.
Products & Services	Products and services are offered that enhance the well-being of women and girls.
Supply Chain	<p>Strong commitment to women in the supply chain + 1 quality employment benefit beyond legal minimums.</p> <p>The supply chain prioritises women & offers at least 1 extra quality employment benefit.</p> <p>Women empowered in supply chain + 1 benefit above legal requirements.</p>
Governance	<p>At least 3 practices that demonstrate intentional efforts to drive gender equality, representing 1 in EACH sub-dimension of:</p> <p>1) Strategic action 2) Management systems 3) Data</p>

Table 24: 2X Criteria -Morocco⁵⁷⁹

31. Climate change and agriculture

- i. Will there be any anticipated differences in men’s and women’s vulnerability and adaptive capacity to climate change? If so, what are these?*
- ii. How does climate change affect female farmers vs male farmers?*
- iii. Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- iv. Any research on how women respond to shocks? Does less access to capital mean harder time recovering?*

⁵⁷⁹ [2X Criteria — 2X Challenge](#)

Morocco's climate is diverse due to its varied topography, encompassing the Rif Mountains in the north, the Atlas Mountains in the centre, plateaus in the east, plains and coastal areas in the west, and desert terrain in the south. The majority of Morocco, especially along the coastline, features a typical Mediterranean climate characterised by mild, rainy winters and hot, arid summers. Running through the centre of Morocco, the Atlas Mountains serve as a natural barrier, separating the Mediterranean climate of the northern coast from the southern regions, which border the Sahara Desert.⁵⁸⁰

According to the World Bank,⁵⁸¹ Morocco faces significant vulnerability to climate variability and change, with projections indicating a rise in the frequency and severity of droughts, particularly alarming for the agricultural sector. This trend will impact rural livelihoods and the overall national economy. Furthermore, escalating temperatures and shifting rainfall patterns pose additional risks to water resource availability, agricultural and livestock productivity, and the growing demands of the population. The combination of climate and socio-economic factors in semi-arid regions exposes communities to food insecurity and jeopardises livelihoods, leading to unsustainable agricultural practices, crop failures, and degraded rangelands. Because of its geographical positioning, variability in rainfall patterns, and terrain, Morocco is especially susceptible to floods.⁵⁸²

In Morocco, the impacts of climate change are becoming more evident, with water scarcity, droughts, and floods emerging as pressing concerns. Climate change significantly alters the water cycle, leading to more frequent and severe droughts and floods, alongside escalating water scarcity issues. The impacts of climate change have already strained Morocco's natural resources, affecting the resilience of forest ecosystems and agriculture, notably due to water scarcity. Efforts from the World Bank are underway to enhance resilience to climate change and transition towards a green economy. Key areas of focus include water resources, agriculture, forestry, energy, and healthcare sectors.

Four-fifths of Morocco's most vulnerable inhabitants reside in rural regions, depending on rainfed agriculture for sustenance and livelihood. Additionally, the escalation in sea levels heightens the likelihood of coastal flooding, posing economic and personal setbacks in areas where 65% of the population and 90% of industrial activities are concentrated. Climate change may prompt the migration of as many as 1.9 million individuals from rural to urban settings by 2050.

Women's role in the agricultural sector is paramount, with many working up to 10 hours a day. This intensive pace of work demands constant physical effort and can have implications on women's health and well-being, which may be exacerbated and/or amplified by climate change. As climate change leads to more extreme weather events, unpredictable growing seasons, and increased exposure to heat stress, women working in agriculture may face additional challenges such as heat-related illnesses, fatigue, and decreased productivity.⁵⁸³

Overall, studies indicate, that women in Morocco face greater challenges during climate shocks due to limited access to financial resources. This then, in turn, leads to investment challenges, since women can't invest in improved seeds, fertilizers, or drought-resistant crops. Which limits their ability to adapt and rebuild livelihoods.⁵⁸⁴

The World Bank is assisting Morocco in both adaptation/resilience and mitigation efforts. To tackle water scarcity and its effects on agriculture, the World Bank is aiding Morocco in enhancing water

⁵⁸⁰ [The World Bank](#)

⁵⁸¹ [The World Bank](#)

⁵⁸² [The World Bank, 2023](#)

⁵⁸³ [Rachida & Mereyem \(2023\)](#)

⁵⁸⁴ [IFPRI, n.d.](#)

productivity for small and medium-sized farmers through the modernisation of irrigation systems, such as transitioning to drip irrigation, and improving water governance. It has also supported bolstered disaster and climate resilience by investing in structural disaster and climate-related risk reduction, providing financial coverage against catastrophic events, and backing the new Blue Economy national program to fortify coastal area resilience.⁵⁸⁵ On the mitigation front, the World Bank has provided substantial financing of over \$700 million US to support the notable Noor solar power program. Additional initiatives focused on climate action will aid Morocco in implementing its Nationally Determined Contribution under the United Nations Framework Convention on Climate Change and the government's ambitious water emergency plan aimed at addressing recent severe droughts.⁵⁸⁶ Around 35% of the new financing in Morocco over the past three years has been allocated to climate action, totalling approximately \$1.6 billion US. In addition to funding, the Bank has collaborated closely with Moroccan institutions to assess the impacts of climate change across various sectors, from agriculture to the blue economy.⁵⁸⁷

Overall, the collaboration between the World Bank and Moroccan institutions underscores a concerted effort to address climate change impacts comprehensively. Through financing, capacity building, and strategic partnerships, Morocco is striving to mitigate risks and build a more resilient future.

32. Vulnerable Subgroups

- i. *Could there be a short section on vulnerable subgroups. e.g. children, girls, women and men with disabilities, the elderly, widows, indigenous? Any specific info on them?*

Women, children, people with disabilities and those living in rural areas are the most vulnerable in Morocco. According to a recent survey by Morocco's national statistical office, the High Commission for Planning (HCP), approximately 5.5% of the population, or 727,833 people, live with a disability.⁵⁸⁸

Moreover, NGOs play a vital role in Moroccan society, addressing a wide range of social, economic, and environmental issues. Below are some examples of NGOs working in Morocco:

- **L'Entraide Nationale (National Mutual Aid):** This NGO provides social assistance to low-income families, people with disabilities, and the elderly.⁵⁸⁹
- **Al Jisr Association:** Provides support to migrants and refugees in Morocco.⁵⁹⁰
- **Association marocaine des droits de l'Homme (Moroccan Association for Human Rights):** This NGO advocates for human rights and democracy in Morocco.⁵⁹¹
- **Fondation Al Karama (Al Karama Foundation):** Works to promote human rights and social justice in Morocco.⁵⁹²
- **The Moroccan Children's Trust (MCT):** Works to improve the lives of vulnerable children and their families in southern Morocco. They go beyond simply providing necessities. MCT offers

⁵⁸⁵ [The World Bank, 2023](#)

⁵⁸⁶ [The World Bank, 2023](#)

⁵⁸⁷ [The World Bank, 2023](#)

⁵⁸⁸ [UNDP, 2023](#)

⁵⁸⁹ [Entraide Nationale, n.d.](#)

⁵⁹⁰ [Home Al Jisr Business School in Morocco](#)

⁵⁹¹ [Association Marocaine des Droits Humains \(AMDH\)](#)

⁵⁹² [Al Karama Micro Finance](#)

educational programs and pre-schools to equip children with a strong foundation. Social workers provide personalised care and support, while women's empowerment initiatives strengthen families. MCT understands the importance of play and offers recreational activities. They also advocate for better healthcare access and focus on creating long-term solutions alongside the communities they serve. Through this holistic approach, MCT aims to create a safe and fulfilling environment where vulnerable children can truly flourish.⁵⁹³

33. Organisations that Support Women Entrepreneurs in Specific Country (focus on agriculture sector)

Organisation	Description
(IFAD) Investing in Rural People ⁵⁹⁴	Fatima-Zohra embarked on a transition to Kandar Sidi Khair, a rural village in northern Morocco, leaving behind her urban upbringing. Recognising the area's agricultural heritage, she observed a notable absence of economic opportunities for women. Driven by a commitment to effect change, she established a weaving cooperative in 2013. However, market challenges led to its closure. Undeterred, she initiated another cooperative in 2017, focusing on small-scale agriculture with backing from the PDRZM program. By 2021, this cooperative had expanded to encompass sheep rearing and beekeeping, offering stable incomes for women and their families. Continuing her visionary approach, Fatima-Zohra founded Arôme Agay in 2021, devoted to the extraction and sale of essential oils derived from local plants. Through her endeavours, she has empowered numerous women, catalysing transformative shifts in their lives, and fostering their integration into the local economy. ⁵⁹⁵
High Atlas Foundation (HAF) ⁵⁹⁶	<p>The HAF is a Moroccan non-profit that partners with local communities to improve their lives. They focus on areas like sustainable agriculture, education, and cultural preservation.</p> <p><u>A quick overview:</u></p> <ul style="list-style-type: none"> • Sustainable Agriculture: They help communities implement projects designed to improve agricultural practices. This includes planting trees, promoting organic farming methods, and building irrigation systems. • Women's and Youth Empowerment: HAF works to empower women and young people by providing them with educational and economic opportunities.

⁵⁹³ [Moroccan Children's Trust](#)

⁵⁹⁴ [IFAD, 2022](#)

⁵⁹⁵ [IFAD, 2022](#)

⁵⁹⁶ [High Atlas Foundation](#)

	<ul style="list-style-type: none"> • Education: They support educational initiatives in Moroccan communities. • Health: While not a main focus, HAF likely supports health initiatives as part of its community development work. • Cultural Preservation: HAF collaborates with local communities to identify, protect, and promote Morocco's cultural heritage. They've partnered with the American Society for Overseas Research (ASOR) to identify and map hundreds of cultural and religious sites
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Table 25: Organisations that Support Women Entrepreneurs in Morocco

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

Nigeria is located in West Africa and shares its borders with Niger to the north, Chad to the northeast, Cameroon to the east, and Benin to the west⁵⁹⁷. As of 2022, the population of Nigeria is estimated to be roughly 218.5 million⁵⁹⁸. Of this, 50.5% are male and 49.5% are female⁵⁹⁹. The population is 42% aged 0 – 14, 55% aged 15 – 64 and 3% aged 65 or older⁶⁰⁰. This breakdown implies the presence of a large working population, which significantly underpins Nigeria’s development priorities and efforts. Nigeria’s population identifies as roughly 50% Muslim and 50% Christian, and the country faces issues of religious tensions and conflicts⁶⁰¹.

Nigeria’s economy has a 3.3% annual growth rate as of 2022⁶⁰². As of 2018, the poverty headcount ratio at \$2.15 per day was 30.9% in Nigeria⁶⁰³. According to the International Labor Organization, as of 2023 the unemployment rate in Nigeria is 3.6% with this being 5.1% for females and 2.4% for males.⁶⁰⁴

In terms of development, in 2022 Nigeria scored a Human Development Index (HDI) of 0.548, placing it in the ‘low human development’ classification, ranking 161 out of the 193 countries⁶⁰⁵. In Nigeria, the leading causes of death (excluding neonatal conditions) are lower respiratory diseases, tuberculosis, diarrhoeal diseases and malaria⁶⁰⁶. The World Economic Forum’s Global Gender Gap Report 2023 ranked Nigeria at 130 out of 146 countries with a score of 0.637, which is 1% lower than the country’s 2013 level⁶⁰⁷. Within Sub-Saharan Africa, Nigeria was ranked 30 out of 36 countries⁶⁰⁸.

Nigeria faces several material development challenges, including poverty, security risks, policy uncertainty, and gender inequality⁶⁰⁹. In light of this, Nigeria has a number of laws in place to promote gender equality, although these are not considered comprehensive⁶¹⁰. Reportedly, Nigeria’s National Assembly rejected five bills geared at advancing gender equality in 2022⁶¹¹. Legislation tackling gender-related issues include the Violence against Persons (Prohibition) Act of 2015 and the National Industrial Court of Nigeria’s (NICN) Civil Procedure Rules, Order 14, Rule 1 (a), (b), (c) and (d) which cover sexual harassment and violence in the workplace⁶¹².

⁵⁹⁷ [Britannica, 2024](#)

⁵⁹⁸ [World Bank Open Data Nigeria](#)

⁵⁹⁹ [World Bank Open Data Nigeria](#)

⁶⁰⁰ [UNFPA Nigeria](#)

⁶⁰¹ [Britannica, 2024](#)

⁶⁰² [World Bank Open Data Nigeria](#)

⁶⁰³ [World Bank Open Data Nigeria](#)

⁶⁰⁴ [World Bank Open Data Nigeria](#)

⁶⁰⁵ [UNDP Nigeria](#)

⁶⁰⁶ [World Health Organization, Nigeria](#)

⁶⁰⁷ [WEF Global Gender Gap Report, 2023](#)

⁶⁰⁸ [World Health Organization, Nigeria](#)

⁶⁰⁹ [IFAD Nigeria](#)

⁶¹⁰ [UN Women Nigeria](#)

⁶¹¹ [The Conversation, 2023](#)

⁶¹² [UN Women, Business and the Law Economy Summary Nigeria, 2021](#)

In the context of the persistent gender equality gaps in Nigeria, coupled with pervasive poverty, ARAF II's development of strategies to promote gender equality and the empowerment of women through investments in companies in ARAF II's target countries is essential.

1. Health data and analysis

- i. *What is the maternal mortality rate, infant mortality rate, life expectancy (disaggregated by sex).*

According to the World Health Organization, as of 2019, 3% of Nigeria's GDP is allocated to health expenditure⁶¹³. In Nigeria, the leading causes of death for females (excluding neonatal conditions) are lower respiratory infections (106.4 deaths per 100,000 population), diarrheal diseases (72.2 deaths per 100,000 population), and malaria (49.8 deaths per 100,000 population)⁶¹⁴. For males, the leading causes of death in Nigeria (excluding neonatal conditions) are lower respiratory diseases (110 deaths per 100,000 population), tuberculosis (81 deaths per 100,000), and diarrheal diseases (72 deaths per 100,000 population)⁶¹⁵. See Table 1 for a breakdown of maternal mortality rate, infant mortality rate, adolescent birth rate, and life expectancy in Nigeria.

Maternal mortality rate	1047 deaths per 100,000 live births ⁶¹⁶
Infant mortality rate	71 per 1,000 live births ⁶¹⁷
Adolescent birth rate for girls aged between 15-19	75 per 1,000 girls ⁶¹⁸
Life expectancy	52 years for males, 53 years for females ⁶¹⁹

Table 26: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Nigeria

Nigeria's maternal mortality rate is considered "extremely high" by the Integrated African Health Observatory and the World Health Organization and has increased by 14% from 917 deaths per 100,000 live births in 2017 to 1047 deaths in 2020⁶²⁰.

⁶¹³ [World Health Organization, Nigeria](#)

⁶¹⁴ [World Health Organization, Nigeria](#)

⁶¹⁵ [World Health Organization, Nigeria](#)

⁶¹⁶ [UNFPA Nigeria](#)

⁶¹⁷ [World Bank Open Data Nigeria](#)

⁶¹⁸ [UNFPA Nigeria](#)

⁶¹⁹ [World Bank Open Data Nigeria](#)

⁶²⁰ [Integrated African Health Observatory, 2023](#)

Only 29% of women in Nigeria reported they had decision making power on sexual and reproductive health and reproductive rights between 2007 and 2022⁶²¹. Additionally, in the same time period, only 46% of women in Nigeria reported access to decision making power on their own healthcare⁶²².

The WEF Global Gender Gap Report 2023 ranks Nigeria at 99 out of 146 countries for women's health and survival⁶²³.

34. Sexual Exploitation, Abuse and Harassment (SEAH) laws, policy, trends, and data

i. Any info on SEAH in the workplace? Trends on incidents?

According to standards set by UN Women, 75% of the necessary legal frameworks that intentionally promote, enforce, and monitor gender equality (under SDG 5: Gender Equality), including those focused on gender-based violence, are in place in Nigeria⁶²⁴. According to UN Women, Nigeria has only 30% of the necessary legal frameworks specifically in place to tackle violence against women⁶²⁵. Certain laws implemented in Nigeria criminalise sexual harassment in the workplace⁶²⁶. Domestic violence and other forms of violence against women are also prohibited by the law⁶²⁷. However, Nigeria lacks civil remedies for sexual harassment in employment, directly reducing the law's efficacy in addressing issues of gender-based violence and harassment⁶²⁸.

A 2022 Global Citizen article stated that Nigeria's Stand to End Rape organization published research showing that 64% of women surveyed across sectors in Nigeria reported that they have been sexually harassed in their workplace⁶²⁹. According to Nigerian legal precedent, employers can be held responsible for protecting employees from workplace sexual harassment⁶³⁰. Additionally, a 2020 study indicated that roughly 50% of women in Nigeria reported experiencing sexual harassment at work, but only 10% made a formal report or complaint⁶³¹. This study indicated that the most common form of sexual harassment was "sexually suggestive looks, whistles, stares, gestures" at 30% followed by "sexually explicit language, inappropriate jokes and remarks" at 29%, "intimate acts, touching, kissing, grabbing" at 25%, "compromising invitations, offers or presents" at 23%, and "request for sexual favors in return for advantage" at 15%⁶³².

⁶²¹ [UNFPA Nigeria](#)

⁶²² [UNFPA Nigeria](#)

⁶²³ [WEF Global Gender Gap Report, 2023](#)

⁶²⁴ [UN Women, Nigeria](#)

⁶²⁵ [UN Women, Nigeria](#)

⁶²⁶ [UN Women, Business and the Law Nigeria 2024](#)

⁶²⁷ [UN Women, Business and the Law Nigeria 2024](#)

⁶²⁸ [UN Women, Business and the Law Nigeria 2024](#)

⁶²⁹ [Global Citizen, 2022](#)

⁶³⁰ [Action4Justice Nigeria](#)

⁶³¹ [Harassment and Discrimination in Nigerian Workplaces, 2020](#)

⁶³² [Harassment and Discrimination in Nigerian Workplaces, 2020](#)

As of 2021, the World Bank estimates that 15% of women ages 15 to 49 in Nigeria have experienced female genital mutilation in their lifetimes⁶³³. It was additionally found, based on 2018 data, that 28% of women in Nigeria found it justifiable for a man to beat his wife for any reason⁶³⁴.

Some key statistics, according to the most recent data of UN Women⁶³⁵ and/or the World Health Organization⁶³⁶, include the following as listed in Table 2.

Indicator	Measure (Nigeria)
Women aged 20–24 years old who were married or in a union before age 18	43.4%
Women aged 20-24 years who were married or in a union before age 15	15.7%
Adolescent birth rate	106 per 1,000 women aged 15 - 19
Women aged 15-49 years reporting being subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months	13.2%
Percentage of women who have experienced intimate partner violence ever	24%
Girls and women aged 15-49 who have undergone female genital mutilation/cutting	19.5%

Table 27: Key statistics on sexual exploitation, abuse and harassment in Nigeria

Nigerian legislation tackling gender-related issues, specifically violence on women and girls, include the Violence against Persons (Prohibition) Act of 2015 and the National Industrial Court of Nigeria’s (NICN) Civil Procedure Rules, Order 14, Rule 1 (a), (b), (c) and (d) which cover sexual harassment and violence in the workplace⁶³⁷.

UN Women reports that, as of 2020, only 46.7% of the indicators needed to monitor the SDGs were being actively monitored in Nigeria⁶³⁸. Key omissions include unpaid care and domestic work, key labour market indicators, such as the gender pay gap, information and communications technology skills, gender and poverty, physical and sexual harassment, women’s access to assets (including land), and gender and the environment⁶³⁹.

⁶³³ [World Bank Nigeria Gender Landscape](#)

⁶³⁴ [World Bank Nigeria Gender Landscape](#)

⁶³⁵ [UN Women, Nigeria](#)

⁶³⁶ [World Health Organization, Nigeria](#)

⁶³⁷ [UN Women, Business and the Law Economy Summary Nigeria, 2021](#)

⁶³⁸ [UN Women, Nigeria](#)

⁶³⁹ [UN Women, Nigeria](#)

35. Political and governing data and analysis

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

According to UN Women's metrics, Nigeria has 75% of the legal frameworks promote, enforce and monitor gender quality in place⁶⁴⁰. In line with this, Nigeria has significant gaps in the political and legal empowerment of women within the country. This includes constraints on women's freedom of movement, laws affecting women's decisions to work, gender differences in property and inheritance, laws affecting women's pay, laws affecting women's work after having children, constraints on women starting and running a business, and laws affecting the size of a woman's pension⁶⁴¹.

For example, the World Bank's Women, Business and the Law Report on Nigeria states that there are restrictions to a woman's ability to choose where she lives as well as how she can apply for a passport, with differences in the legislation and legal precedent based on gender⁶⁴².

As of 2022, 4% of the seats in Nigeria's national parliament were held by women⁶⁴³, one of the lowest levels of gender representation in the world⁶⁴⁴. Additionally, in 2022 only 10.7% of ministerial positions in Nigeria were held by women⁶⁴⁵. Notably, unlike much of the world and the majority of the African continent, Nigeria has no political gender quotas⁶⁴⁶.

The World Economic Forum's Global Gender Gap Report 2023 reports that, since 2013, Nigeria's political empowerment score has decreased from 11.9% to 4.1% due to a recession of parity in both ministerial and parliamentary positions⁶⁴⁷. In line with this, according to the WEF Report 2023, Nigeria scores among the lowest countries for parity in the political environment and political representation⁶⁴⁸.

The WEF Global Gender Gap Report 2023 ranks Nigeria at 142 out of 146 countries for the political empowerment of women⁶⁴⁹. Notably, the report points out that, in many metrics, Nigeria appears to be regressing rather than progressing in the journey towards gender parity in politics, such as decreasing numbers of women elected to national office⁶⁵⁰.

Studies on Nigerian politics have consistently underscored the marginalization of women while identifying major obstacles against their political engagement⁶⁵¹. These material constraints include

⁶⁴⁰ [UN Women Nigeria](#)

⁶⁴¹ [UN Women, Business and the Law Nigeria 2024](#)

⁶⁴² [UN Women, Business and the Law Economy Summary Nigeria, 2021](#)

⁶⁴³ [World Bank Open Data Nigeria](#)

⁶⁴⁴ [WEF Global Gender Gap Report, 2023](#)

⁶⁴⁵ [World Bank Nigeria Gender Landscape](#)

⁶⁴⁶ [Ette and Akpan-Obong, 2023](#)

⁶⁴⁷ [WEF Global Gender Gap Report, 2023](#)

⁶⁴⁸ [WEF Global Gender Gap Report, 2023](#)

⁶⁴⁹ [WEF Global Gender Gap Report 2023](#)

⁶⁵⁰ [Ette and Akpan-Obong, 2023](#)

⁶⁵¹ [Ette and Akpan-Obong, 2023](#)

the prevalence of gender-based violence, systemic reinforcement of patriarchal framing of politics in media (with it being a ‘man’s job’), low literacy rates which hinder women’s awareness of their political and democratic rights, insufficient championing and education on the political emancipation and liberation of women by women’s organisations, and political violence⁶⁵².

	Nigeria’s Global ranking	Nigerian score	Female	Male	F/M
Women in parliament, %	141	0,037	3.60	96.40	0.03
Women in ministerial positions, %	119	0,120	10.71	89.29	0.12
Years with female head of state (last 50)	80	0.000	0	50.00	0.00

Table 28: Global gender gap – Nigerian political empowerment index⁶⁵³

36. Employment data

- i. *Labor force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex)*

In Nigeria in 2023, the labour force participation rate for women is 52.2% and for men is 65.9%, according to the World Bank⁶⁵⁴. Notably, measuring since 1990, female labour force participation in Nigeria has decreased⁶⁵⁵. The International Labour Organization estimates that as of 2023, Nigeria’s unemployment rate was 3.6%, with this being 5.1% for females and 2.4% for males⁶⁵⁶.

Of employed women, only 14.2% were in wage and salaried employment in 2022, with this being 14.1% for men⁶⁵⁷. The share of youth not in education, employment or training, as a percentage of the youth population, was 18.9% for females and 8.86% for males, in 2022⁶⁵⁸. This shows a notable gap between employment for male youth and female youth.

The WEF Global Gender Gap Report 2023 ranks Nigeria at 54 out of 146 countries for women’s economic participation and opportunity⁶⁵⁹.

See Table 3 for a comparison of labour force participation rates, disaggregated by sex, for Nigeria and broader sub-Saharan Africa. This indicates particularly high levels of vulnerable employment for both men and women in Nigeria.

⁶⁵² [Ette and Akpan-Obong, 2023](#)

⁶⁵³ [World Bank Nigeria Gender Landscape](#)

⁶⁵⁴ [World Bank Gender Data Portal Nigeria](#)

⁶⁵⁵ [World Bank Gender Data Portal Nigeria](#)

⁶⁵⁶ [World Bank Open Data Nigeria](#)

⁶⁵⁷ [World Bank Nigeria Gender Landscape](#)

⁶⁵⁸ [World Bank Nigeria Gender Landscape](#)

⁶⁵⁹ [WEF Global Gender Gap Report 2023](#)

Labour force participation rate, Nigeria, females	52.2%
Labour force participation rate, Nigeria, males	65.9%
Labour force participation rate Sub-Saharan Africa, females	60.7%
Labour force participation rate Sub-Saharan Africa, males	72.8%
Vulnerable employment rate, Nigeria, females	84.9%
Vulnerable employment rate, Nigeria, males	84%
Vulnerable employment rate, Sub-Saharan Africa, females	80.5%
Vulnerable employment, Sub-Saharan Africa, males	71.3%

Table 29: Labour force participation rates for various groups within Nigeria

According to an estimate by the ILO, 93% of all employment in Nigeria is informal, with 95% of women working in the informal economy compared to 90% of men⁶⁶⁰. The ILO also reports that men tend to have disproportionate access to the best-quality jobs in the informal economy⁶⁶¹. In addition, women are more likely to be informal employees, while more men own informal enterprises⁶⁶². This could be linked to more men having access to capital and to the culture of patriarchy in Nigeria. Consequently, there are significant gender differences in the informal economy⁶⁶³.

37. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention?*

⁶⁶⁰ [Osiki, 2022](#)

⁶⁶¹ [Osiki, 2022](#)

⁶⁶² [Osiki, 2022](#)

⁶⁶³ [Osiki, 2022](#)

- iii. *What resources (economic, financial, physical, natural, other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision – making processes?*

Gender-based inequalities are frequently reported as a hindering factor in the human development of Nigeria⁶⁶⁴. In traditional Nigerian society, a patriarchal structure is prevalent, often leading to a social hierarchy based on gender⁶⁶⁵, with women being limited to certain types of jobs, being paid less than men, having limited autonomy over their income earning capacity, household monetary decision making, their own health and major household purchases⁶⁶⁶.

In a 2024 study published by Ifegbesan & Azeez on gender roles in Nigeria, several key gender-related findings were highlighted. The majority of men and half of the women surveyed believed that men should have priority in job opportunities during times of scarcity⁶⁶⁷. About 41.7% of men felt that conflicts could arise when a woman earns more than her husband⁶⁶⁸. Interestingly, 53% of men and 60% of women believed that having a job is the best way for a woman to gain independence⁶⁶⁹. The study also revealed that 43.3% of men and 35.8% of women agreed with the statement that children might suffer when their mother works for pay⁶⁷⁰. However, most respondents disagreed with the notion that university education is more important for boys than for girls⁶⁷¹. In terms of leadership, 81.0% of men and 68.7% of women agreed that men make better political leaders, which could explain the male dominance in politics⁶⁷². Similarly, 74.5% of men and 61.0% of women agreed that men make better business executives⁶⁷³. Lastly, the study found that approximately half of both genders agreed with the statement that being a housewife is just as fulfilling as working for pay⁶⁷⁴. These findings provide a snapshot of perceptions of gender roles in Nigeria.

The 2023 Nigerian Women Trust Fund's National Gender in Nigeria Report⁶⁷⁵ recognizes Nigeria's pervasive unconscious bias against women and how this hinders women from taking leadership roles, linked to legal discrimination, social norms and social practices such as early marriage that hinder women's ability to participate in the public sphere.

This National Gender in Nigeria Report⁶⁷⁶ attributes Nigeria's lack of women empowerment to social-cultural norms including:

- General socio-cultural practices including harsh and restrictive widowhood practices, female genital mutilation/cutting, child marriage, and pervasive subjugating practices that diminish the self-confidence of women and girls.

⁶⁶⁴ [Ifegbesan and Azeez, 2024](#)

⁶⁶⁵ [Ifegbesan and Azeez, 2024](#)

⁶⁶⁶ [EFInA, 2022](#)

⁶⁶⁷ [Ifegbesan and Azeez, 2024](#)

⁶⁶⁸ [Ifegbesan and Azeez, 2024](#)

⁶⁶⁹ [Ifegbesan and Azeez, 2024](#)

⁶⁷⁰ [Ifegbesan and Azeez, 2024](#)

⁶⁷¹ [Ifegbesan and Azeez, 2024](#)

⁶⁷² [Ifegbesan and Azeez, 2024](#)

⁶⁷³ [Ifegbesan and Azeez, 2024](#)

⁶⁷⁴ [Ifegbesan and Azeez, 2024](#)

⁶⁷⁵ [2023 Nigerian Women Trust Fund's National Gender in Nigeria Report](#)

⁶⁷⁶ [2023 Nigerian Women Trust Fund's National Gender in Nigeria Report](#)

- Education access as a result of restrictive socio-cultural beliefs, referencing UNICEF's reports that roughly 60% of the 10 million out of school children in Nigeria is female.
- Unequal political rights based on gender, for example the constitutional right of a man to confer citizenship based on marriage, which is not the case for women.

The World Bank's Women, Business and the Law (2023) gives Nigeria a score of 66 out of 100 for women's equality, lower than the average score in sub-Saharan Africa of 74⁶⁷⁷. The land ownership context in Nigeria is indicative of this; as of 2018, 88.5% of women do not own land, and 58.9% of men do not own land⁶⁷⁸.

General agency of women is also an issue in Nigeria with The World Bank estimating that as of 2018, 33.5% of women aged 15 to 49 in Nigeria report participating in decisions related to health care, purchases and visiting family⁶⁷⁹.

A 2020 publication by the Government of Nigeria (related to climate change) discusses the underlying imbalance between representation for men and women in social, political and economic sphere, and discusses how this imbalance contributes to policy formulation and implementation⁶⁸⁰.

Based on data from 2018, UN Women reports that 35.5% of women in Nigeria participated in making decisions in the household, including visits to family, relatives and friends, making major household purchases, and their own healthcare⁶⁸¹. A 2023 academic article on women's political participation and representation in Nigeria also notes that subservience in a woman is often seen as a desirable trait⁶⁸².

There are many reports of women's lives being significantly controlled by men in Nigeria. A 2023 article on access to information and communication technology discusses how some men in Nigeria control women's access to this technology because they fear women's exposure to indecent or corrupting media⁶⁸³. The article reports that a recent study found that roughly 50% of married men in Nigeria actively control their wives access to the internet⁶⁸⁴.

38. Education data and analysis

- Educational status of girls and boys, adult literacy rate (disaggregated by sex).*
- Do women have equal access to education, technical knowledge, and/or skill upgradation? (access to technical knowledge and skills upgradation is discussed in agribusiness section 9).*

⁶⁷⁷ [World Bank Nigeria Gender Landscape](#)

⁶⁷⁸ [World Bank Nigeria Gender Landscape](#)

⁶⁷⁹ [World Bank Nigeria Gender Landscape](#)

⁶⁸⁰ [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

⁶⁸¹ [UN Women Nigeria](#)

⁶⁸² [Ette and Akpan-Obong, 2023](#)

⁶⁸³ [Adeleke, 2023](#)

⁶⁸⁴ [Adeleke, 2023](#)

In Nigeria in 2018, the literacy rate for men was 71.3% and for women was 52.7%⁶⁸⁵. This gap of 18.6% is larger than the regional sub-Saharan Africa aggregate, 12.7%⁶⁸⁶. Notably, the World Bank reported no data available for lower secondary school completion rate in Nigeria, disaggregated by sex⁶⁸⁷.

However, a 2022 publication entitled Women's Economic Empowerment in Nigeria reported that primary school enrollment is 62% for boys and 52% for girls, with secondary enrolment being 52% for boys and 47% for girls⁶⁸⁸. Further, the report indicates that 51% of women's highest level of education is a secondary education, 43% of adult women are unable to speak Nigeria's official language (English), and that the education statistics for both boys and girls are worse in rural areas as compared to urban areas⁶⁸⁹.

According to the Statistical Report on Women and Men in Nigeria 2021⁶⁹⁰, data from the National Commission for Mass Literacy, Adult and non-formal Education indicates that 49.19% of females have been enrolled in adult/basic literacy education in 2019, and that this reduced to 45.92% in 2020 before increasing slightly to 46.10% in 2021⁶⁹¹. For males, these numbers were 50.81% in 2019, 54.08% in 2020 and 53.90% in 2021⁶⁹². According to UNICEF (2024) there are still 10.5 million of the country's children aged 5-14 years that are not in school. Only 61% of 6 to 11 year-olds regularly attend primary school and only 35.6% of children aged 36 - 59 months receive early childhood education⁶⁹³.

According to the World Economic Forum's Global Gender Gap Report 2023, Nigeria's parity on educational attainment has been fluctuating in recent years and has barely improved in the last decade, with its educational attainment parity being one of the lowest in the world at 82.6%⁶⁹⁴.

The WEF Global Gender Gap Report 2023 ranks Kenya at 137 out of 146 countries for women's educational attainment⁶⁹⁵.

39. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

⁶⁸⁵ [World Bank Gender Data Portal Nigeria](#)

⁶⁸⁶ [World Bank Gender Data Portal Nigeria](#)

⁶⁸⁷ [World Bank Gender Data Portal Nigeria](#)

⁶⁸⁸ [EFInA, 2022](#)

⁶⁸⁹ [EFInA, 2022](#)

⁶⁹⁰ [Statistical Report on Women and Men in Nigeria 2021](#)

⁶⁹¹ [UNICEF, Nigeria](#)

⁶⁹² [Statistical Report on Women and Men in Nigeria 2021](#)

⁶⁹³ [UNICEF, Nigeria](#)

⁶⁹⁴ [WEF Global Gender Gap Report, 2023](#)

⁶⁹⁵ [WEF Global Gender Gap Report 2023](#)

As of 2018, the poverty headcount ratio of \$2.15 per day was 30.9% in Nigeria⁶⁹⁶. The poverty rate is estimated to have reached 38.9% in 2023, with an estimated 87 million Nigerians living below the poverty line — the world’s second-largest poor population after India poverty⁶⁹⁷.

According to the WEF’s Global Gender Gap Report 2023, Nigeria has a high level of representation of women in senior positions, at 64%, but a low gender parity in income with women earning only 50% of the income earned by men⁶⁹⁸. Data from the World Bank indicates that the female share of employment in senior and middle management in Nigeria is 57.2% as of 2022⁶⁹⁹.

In 2021 in Nigeria, the proportion of men with an account (by themselves or together with someone else) at a financial institution or who personally used a mobile money service in the past year was 55.5%, with this being significantly lower for women, sitting at 35%⁷⁰⁰. As of 2021, 55% of the population of Nigeria were using the internet⁷⁰¹. Additionally, as of 2021, 6.09% of women and 10.1% of men use a mobile phone or the internet to pay bills⁷⁰². In all of these metrics, there is a clear discrepancy based on gender.

In terms of business ownership, UN Women reports that as of 2024 in Nigeria, 34% of business owners are women and 66% are men⁷⁰³. It has also been reported that women tend to lack knowledge or an understanding of the financial options available to them⁷⁰⁴.

As of 2018 in Nigeria, 59.5% of men and 89.3% of women do not own a house⁷⁰⁵. Notably, 24.1% of men own a house alone, and only 2.5% of women own a house alone⁷⁰⁶.

Nigeria faces issues of female digital exclusion, an empowerment issue given that digital agency is a catalyst for development. Only 45% of women in Nigeria access information and communication technology (ICT) in the country as a whole, and across Nigeria, female ICT access is uneven and varies by geographical location⁷⁰⁷. Though female ICT access is generally low across the country, the northern region accounts for a considerable number (60%) of women who are digitally excluded, mostly in Sokoto and Kebbi States⁷⁰⁸. This contrasts with Lagos State in southwestern Nigeria, with a high female (65.7 %) ICT access⁷⁰⁹.

⁶⁹⁶ [World Bank Open Data Nigeria](#)

⁶⁹⁷ [The World Bank in Nigeria Overview](#)

⁶⁹⁸ [WEF Global Gender Gap Report, 2023](#)

⁶⁹⁹ [World Bank Nigeria Gender Landscape](#)

⁷⁰⁰ [UN Women Nigeria](#)

⁷⁰¹ [World Bank Open Data Nigeria](#)

⁷⁰² [World Bank Nigeria Gender Landscape](#)

⁷⁰³ [UN Women Nigeria](#)

⁷⁰⁴ [EFInA, 2022](#)

⁷⁰⁵ [UN Women Nigeria](#)

⁷⁰⁶ [UN Women Nigeria](#)

⁷⁰⁷ [Adeleke, 2023](#)

⁷⁰⁸ [Adeleke, 2023](#)

⁷⁰⁹ [Adeleke, 2023](#)

SECTOR-SPECIFIC DATA AND ANALYSIS

40. Agri-business data analysis

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regards to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*
- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women - are there female entrepreneurs? How hard is it for them to attract capital?*

In Nigeria, 28.9% of female employment was in agriculture as of 2022, with this being 44.9% for males⁷¹⁰. The Government of Nigeria's National Action Plan on Gender and Climate Change for Nigeria (2020) reports that 70% of Nigerians, especially women, are involved in agriculture as an economic activity, with further dependence on rainfed agricultural practices, pastoral and nomadic animal husbandry activities⁷¹¹. This is in line with a 2019 paper that discusses how women's agricultural activities focus on small-scale and rain-fed operations⁷¹². Women tend to use fewer inputs (such as fertilizer), have less access to productive labour, and tend to farm less valuable crops, all resulting in a gendered gap in the sector⁷¹³. Specifically, the four value chains in Nigeria that receive the largest budget allocations (rice, cotton, cocoa, and millet/sorghum) are among those with the lowest representation and participation of women farmers⁷¹⁴.

In Nigeria, more than 20% of working-age people participate in the agricultural sector, which accounts for 21% of the nation's GDP⁷¹⁵. The sector, clearly crucial to Nigeria's economy, sees major but significantly restricted female involvement, with women being less likely to oversee the plots they work on and facing a productivity gap compared to male plot managers⁷¹⁶. Women in Nigeria are almost 10% less likely to work in agriculture whether on their own plot or someone else's, when compared to men⁷¹⁷. Additionally, women are 25% less likely to manage an agricultural plot than

⁷¹⁰ [World Bank Nigeria Gender Landscape](#)

⁷¹¹ [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

⁷¹² [Onwutuebe, 2019](#)

⁷¹³ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷¹⁴ [World Bank Gender Gaps in Agriculture Productivity and Product Spending in Nigeria, 2023](#)

⁷¹⁵ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷¹⁶ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷¹⁷ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

men, and those who do manage their own plot experience significantly lower productivity than male plot managers⁷¹⁸.

Notably, female plot managers have vastly different household demographics than male plot managers, with the majority of female plot managers/owners (63%) being widowed, separated or divorced, whereas male plot managers are almost exclusively married (94%)⁷¹⁹. Female plot owners also tend to be older, are more likely to have never attended school, and live in households with fewer adults⁷²⁰.

Female farmers in Nigeria yield 30% less per hectare than their male counterparts⁷²¹. Male farmers use over eight times more fertilizer and 50% more herbicide per hectare than their female counterparts⁷²². Lower use of these inputs constrains the production of female plot managers because doubling the quantities of fertilizer and herbicide used on a plot in Nigeria increases agricultural productivity by 6% and 18%, respectively, on average⁷²³.

Historically and at present, the majority of Nigerian women lack access to services including healthcare, education, water and sanitation, financial services, and information and communication technology⁷²⁴, all of which are necessary for economic growth, including in agriculture. Additionally, Nigerian women are traditionally involved in subsistence level activities, empowering them with entrepreneurial and practical skills, if not formal education⁷²⁵.

Globally, and in Nigeria, women's empowerment, including in agriculture, is acknowledged to be a catalyst for development⁷²⁶. A World Bank study showed that women account for 30% to 50% of farmers and entrepreneurs who are growing crops, raising livestock, and selling food in local Nigerian markets⁷²⁷.

Women's economic growth, including in agriculture, is often limited through restricted credit access, with women's lack of land ownership being a barrier due to a lack of collateral⁷²⁸. However, recent studies in Nigeria indicate that 34% of the economic saving women do is through agriculture/livestock⁷²⁹.

There is also a marked gender gap in access to agricultural extension services in Nigeria, with a 9% discrepancy between men and women farmers in direct participation⁷³⁰. Specifically, a World Bank study in 2023 reported that 17% of male plot managers' households received extension training during the planting season, with only 11% of women plot managers' households receiving the same, of whom only 8% were direct recipients⁷³¹.

⁷¹⁸ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷¹⁹ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷²⁰ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷²¹ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷²² [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷²³ [World Bank Closing Gaps, Increase Opportunities, 2022](#)

⁷²⁴ [EFinA, 2022](#)

⁷²⁵ [EFinA, 2022](#)

⁷²⁶ [TheCable, 2024](#)

⁷²⁷ [World Bank, 2017](#)

⁷²⁸ [EFinA, 2022](#)

⁷²⁹ [EFinA, 2022](#)

⁷³⁰ [World Bank Gender Gaps in Agriculture Productivity and Product Spending in Nigeria, 2023](#)

⁷³¹ [World Bank Gender Gaps in Agriculture Productivity and Product Spending in Nigeria, 2023](#)

The 2X Criteria Thresholds⁷³², which provide minimum requirements for global gender lens investment and organizational practices, specific to the agribusiness and food sector in Nigeria are as follows, shown in Table 4:

Topic	Criteria
Entrepreneurship & Ownership	Founded by a woman (or group of women) that retain an active role OR at least 50% of shares owned by women.
Leadership	At least 50% of senior management is women OR 30% of board members are women.
Employment	At least 40% of employees/workers are women AND at least one quality employment indicator in place beyond what is legally required.
Products and Services	Products/services are offered that enhance the well-being of women/girls.
Supply Chain	Explicit commitment to women in the supply chain is demonstrated AND at least one quality employment indicator in place in the supply chain beyond what is legally required.
Governance	At least three practices that demonstrate intentional efforts to drive gender equality, representing one in EACH sub-dimension of: <ul style="list-style-type: none"> 1) Strategic action 2) Management systems 3) Data

Table 30: 2X Criteria for the Agribusiness and Food sector in Nigeria⁷³³

41. Climate change and agriculture

- i. *Will there be any anticipated differences in men's and women's vulnerability and adaptive capacity to climate change? If so, what are these?*
- ii. *How does climate change affect female farmers vs male farmers?*
- iii. *Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- iv. *Any research on how women respond to shocks? Does less access to capital mean harder time recovering?*

⁷³² [2X Challenge Criteria](#)

⁷³³ [2X Challenge Criteria](#)

In societies where patriarchal privileges are prevalent, men often have a stronger adaptive capability to cope with the adverse impacts of climate change⁷³⁴. This is largely due to their privileged status in terms of financial, economic, social, and political strength, which provides them with a high level of flexibility for vocational mobility or change⁷³⁵. On the other hand, women, who are often conditioned to carry out activities within the domestic space, have their flexibility for occupational mobility or change limited, making them more vulnerable to climate change threats⁷³⁶.

In many societies of Nigeria, land ownership is often male-dominated⁷³⁷, with a lack of access to land and land ownership making women more vulnerable to climate-related changes and weakening efforts towards women's empowerment. Women in Nigeria are frequently tasked with securing water, food, and fuel for cooking and heating, tasks that are becoming increasingly challenging due to climate change, thereby increasing the vulnerability of women in particular⁷³⁸. Furthermore, women's disproportionate dependence on natural resources for their sustenance, coupled with traditional gender roles that discriminate against them, and a general lack of autonomy place women at a disadvantage in the context of the effects of climate change⁷³⁹. This leads to the conclusion that addressing these inequalities is necessary to be able to enhance the adaptive capacities of the Nigerian people, and women in particular, to reduce vulnerabilities in the face of a rapidly changing climate⁷⁴⁰.

As a reaction to the United Nations Development Programme (UNDP) identifying Nigeria as a country particularly vulnerable to climate change and in recognition of gender considerations being a material factor in this, the Government of Nigeria Federal Ministry of Environment launched the National Action Plan on Gender and Climate Change for Nigeria, in 2020⁷⁴¹. This report acknowledges the gendered nature of the effects of climate change, especially regarding women, children, youth, persons with disabilities, elderly people, farmers and grassroots communities⁷⁴². The report discusses these groups' limited participation in decision-making processes and access to particular labour markets as prohibiting factors to involvement in climate-related planning, policy-making, implementation, monitoring and evaluation⁷⁴³.

Furthermore, this report cites unequal literacy rates, low political representation, and imbalanced economic empowerment as reasons for women's disproportional vulnerability to the impacts of climate change as a result of reduced adaptive capacity⁷⁴⁴.

⁷³⁴ [Onwutuebe, 2019](#)

⁷³⁵ [Onwutuebe, 2019](#)

⁷³⁶ [Onwutuebe, 2019](#)

⁷³⁷ [World Bank Nigeria Gender Landscape](#)

⁷³⁸ [Onwutuebe, 2019](#)

⁷³⁹ [Onwutuebe, 2019](#)

⁷⁴⁰ [FAO, 2017](#)

⁷⁴¹ [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

⁷⁴² [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

⁷⁴³ [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

⁷⁴⁴ [National Action Plan on Gender and Climate Change for Nigeria, 2020](#)

42. Vulnerable Subgroups

- i. *Could there be a short section on vulnerable subgroups. e.g., children, girls, women and men with disabilities, the elderly, widows, indigenous? Any specific info on them?*

As of 2022, the population of Nigeria is estimated to be roughly 218.5 million⁷⁴⁵, with a gender split of 50.5% males and 49.5% females⁷⁴⁶. The population is 42% aged 0 – 14, 55% aged 15 – 64 and 3% aged 65 or older⁷⁴⁷. Nigeria’s population identifies as roughly 50% Muslim and 50% Christian, and the country faces issues of insecurity and religious tensions and conflicts⁷⁴⁸.

Nigeria Solidarity Support Fund⁷⁴⁹ identifies the most vulnerable groups in the country as being children, adolescent girls, women, the elderly, malnourished people, and those who are ill or with pre-existing health conditions or disabilities, and reports that 70% of the most vulnerable people in Nigeria are less than 35 years old.

Women are systematically discriminated against in Nigeria, as discussed in the previous sections. Persons with disabilities are also heavily disadvantaged, being significantly more likely to experience extreme poverty than able-bodied people, facing almost double the likelihood of unemployment, and experiencing limited access to adequate healthcare services and education opportunities⁷⁵⁰.

In 2022, Nigeria’s National Health Insurance Authority Bill was signed into law, making health insurance mandatory for all legal residents in Nigeria, expanding coverage to 83 million poor and vulnerable people⁷⁵¹. Despite the NHIS’s goal of providing affordable healthcare, access to medicine faces several challenges. Several challenges hinder access to medicine in Nigeria - inadequate funding, drug stockouts, inefficient supply chain management, and regional disparities in pharmaceutical infrastructure continue to impact access to medicine within the NHIS⁷⁵².

Nigeria has set up various initiatives to alleviate the challenge of unemployment and poverty, such as Youth Entrepreneurship Support Program (YESP), Social Intervention Fund (SIF), Graduate Internship Scheme (GIS), Subsidy Reinvestment and Empowerment Programme (SURE-P), and Youth Enterprise with Innovation in Nigeria Youth Empowering People Youth Initiative for Sustainable Agriculture⁷⁵³.

⁷⁴⁵ [World Bank Open Data Nigeria](#)

⁷⁴⁶ [World Bank Open Data Nigeria](#)

⁷⁴⁷ [UNFPA Nigeria](#)

⁷⁴⁸ [Britannica, 2024](#)

⁷⁴⁹ [Nigeria Solidarity Support Fund](#)

⁷⁵⁰ [World Bank Blogs, 2020](#)

⁷⁵¹ [WHO Nigeria, 2022](#)

⁷⁵² [Uguru et al., 2024](#)

⁷⁵³ [Ishor and Ioramee, 2020](#)

43. Organizations That Support Women Entrepreneurs in Specific Countries (focus on the agriculture sector)

Organisation	Description
The Rivers Women Cooperative Federation Alliance Limited (RIWCOFA) ⁷⁵⁴	RIWCOFA is a cooperative organization based in Nigeria. It is duly registered under the cooperative act of the federal government. The cooperative is a gathering of women with the same ideology who came together willingly to ensure that women in their various Local Governments partake in the development of their families, communities, local Governments, State and nation.
Women in Business and Tourism Nigeria (WIBAT) ⁷⁵⁵	WIBAT is a conglomerate of businesswomen from various sectors, particularly those dealing with tourism practices in Nigeria. They aim to shed new light on the nature of tourism in Nigeria by empowering women to take up business roles. WIBAT is involved in facilitating bilateral trade exchange, mentoring, capacity-building programs, networking, and organizing seminars, fairs, exhibitions, and conferences. Their vision is to re-engineer the face of tourism and businesses owned by women by creatively empowering them and promoting tourism in Nigeria and Africa. Their mission is to create more business opportunities for women by facilitating investments that will aid women in growing their various businesses.
Initiative for Gender Empowerment and Creativity (IGEC) ⁷⁵⁶	IGEC is a registered entity in Lagos, Nigeria, created to inspire creativity and empower vulnerable women. IGEC's mission is to alleviate poverty through economic empowerment in less privileged communities. IGEC has partnered with organizations like The Coca-Cola Foundation for projects such as the Climate Smart Shea Processing Facility. This project supports rural community women who make a living through farming and trade in the Shea Butter value chain. IGEC's initiatives have a significant impact on the communities they serve, offering unprecedented economic opportunities and inclusion for women.

⁷⁵⁴ [The Rivers Women Cooperative Federation Alliance Limited \(RIWCOFA\)](#)

⁷⁵⁵ [Women in Business and Tourism Nigeria \(WIBAT\)](#)

⁷⁵⁶ [Initiative for Gender Empowerment and Creativity \(IGEC\)](#)

<p>Hey-Day (Uzo-Uwani) Farmers' Multi-purpose Co-operative Society Limited⁷⁵⁷</p>	<p>This is a cooperative society based in Enugu, Nigeria. It was established and duly registered on the 7th day of April, 1999. The organization operates in various sectors including agribusiness value chains, fruits and vegetables, cocoa, spices, essential oils, leather, textiles and clothing, creative industries, IT and ITES, e-commerce, services, trade statistics, newsletters, e-learning, and organic products. They are involved in community-based projects and closely monitored by the Rotary Club of Enugu City Layout. Their work contributes to the economic development of their local community</p>
<p>Organization of Women in International Trade (OWIT)⁷⁵⁸</p>	<p>OWIT is a non-profit organization that became a member of OWIT International on October 26, 2018. It focuses on helping women develop and execute global trade opportunities. OWIT Nigeria supports women to strengthen the entrepreneurial ecosystem for African entrepreneurs. Members benefit from free and subsidized business support through webinars, access to collateral-free and low-interest loans, and global exposure for their products and services. They also provide platforms for mentorship, entrepreneurship, and capacity building for competitiveness and sustainability.</p>
<p>Regamos foundation⁷⁵⁹</p>	<p>This is a private, voluntary, non-profit, faith-based, non-governmental organization based in Lagos, Nigeria. Founded in January 2018 and incorporated on March 3rd, 2020, it aims to ease the burden of widows, orphans, and youth. The foundation focuses on advocacy, education, economic empowerment, psychological support, entrepreneurship training, and community development initiatives. It also collaborates with like-minded organizations for the benefit of its target beneficiaries. The foundation has carried out several intervention programs since its inception.</p>
<p>Association of Women in Trade and Agriculture (AWITA)⁷⁶⁰</p>	<p>AWITA is a non-governmental organization founded by Nigerian women involved in trade and agriculture. AWITA aims to harness the rich population of women in these sectors and related supply chains. The organization is committed to promoting women's economic empowerment, gender equality, and positive impact through strategic trade and agricultural engagements. AWITA's activities are designed to strengthen women's capacity and help them reach their full</p>

⁷⁵⁷ [Hey-Day \(Uzo-Uwani\) Farmers' Multi-purpose Co-operative Society Limited](#)

⁷⁵⁸ [OWIT International – Organization of Women in International Trade International](#)

⁷⁵⁹ [Regamos Foundation | LinkedIn](#)

⁷⁶⁰ [Association of Women in Trade and Agriculture \(AWITA\)](#)

	potential ¹ . They provide access to necessary knowledge, technology, and inclusive sustainable development.
Business and Professional Women Nigeria (BPW Nigeria)⁷⁶¹	This is a member of BPW International, an influential network of business and professional women. Founded in 1961, it aims to develop the business, professional, and leadership potential of women through advocacy, education, mentoring, networking, skill-building, and economic empowerment programmes. It has affiliates in over 100 countries and includes influential women leaders, entrepreneurs, business owners, executives, professionals, and young business and professional women. BPW Nigeria is non-partisan, non-sectarian, and non-governmental. It has consultative status with the United Nations Economic and Social Council (ECOSOC) and other UN agencies.

⁷⁶¹ [Business and Professional Women Nigeria \(BPW Nigeria\)](#)

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Identify gender issues related to smallholder farmer climate resilience particularly considerations of gender equalities and disparities in ARAF II investee countries.

GENERAL CONTEXT

The Republic of Uganda is a landlocked country situated in East Africa, with a population of 49.9 million⁷⁶². The country boasts a large youth population with 44% of the population aged between 0-14, 54% aged between 15-64 and only 2% aged 65% and older⁷⁶³. With a vibrant youth population, Uganda has a large working population and consequently needs to ensure sustainable job creation. 51% of the population is female and 49% is male⁷⁶⁴. According to the World Bank, Uganda's GDP is estimated to grow by 6.0% in FY24, while poverty is estimated to reduce from 41.3% (rate of \$2.15/day international poverty line) to 40.1% in 2026⁷⁶⁵. Uganda reports a Human Development Index (HDI) of 0.525, meaning that it is 'low in the human development category' and ranks 166/191 territories⁷⁶⁶. All the statistics above highlight the key developmental challenges Uganda faces, coupled with most jobs being in the agricultural and service sectors⁷⁶⁷. Uganda's dependence on agriculture provides an opportunity for the ARAF II Fund to support sustainable agri-business and therefore impact smallholder farmers.

Uganda has made deliberate strides to work towards addressing gender inequality with the 1995 Constitution (articles 21, 32, 33, 40 and 52) highlighting the equality of men and women under the law. Furthermore, there is legislation against domestic violence and sexual harassment in the workplace in the Domestic Violence Act of 2010 and the Employment Act, The Employment (Sexual Harassment) Regulations of 2012 and the Computer Misuse Act of 2011⁷⁶⁸. However, there is no legislation on child marriage or femicide. The Ministry of Gender, Labour and Social Development and the Equal Opportunities Commission (EOC) are the main gender enforcement agencies in Uganda. The National Gender policy acts as a tool to guide and direct the planning, resource allocation and implementation of development projects with a gender perspective. Its adoption has facilitated Uganda's gender mainstreaming projects in all sectors of the economy. Additionally, on the World Economic Forum's Global Gender Gap Index in 2023, Uganda ranked 78 out of 146 countries a drop from 61 out of 146 in 2022⁷⁶⁹. This means that women in Uganda do not have the same economic participation, educational attainment, health and political empowerment as men in Uganda⁷⁷⁰. Given the persistent gender gap, ARAF II's focus on the development of strategies to promote gender equality and the empowerment of women through investments in companies in ARAF II's target countries is essential.

⁷⁶² [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁶³ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁶⁴ [UNDP Uganda Gender Equality Strategy 2022-2025](#)

⁷⁶⁵ [World Bank Uganda Overview 2024](#)

⁷⁶⁶ [UNDP, Uganda Launch the 2021/2022 Human Development Report, 2022](#)

⁷⁶⁷ [World Bank Uganda Overview 2024](#)

⁷⁶⁸ [World Bank, Women, Business and the Law, 2024](#)

⁷⁶⁹ [World Economic Forum's Global Gender Gap Index, 2023](#)

⁷⁷⁰ [World Economic Forum's Global Gender Gap Index, 2023](#)

1. Health data and analysis

- i. *What is the maternal mortality rate, infant mortality rate, life expectancy (disaggregated by sex)*

Uganda has an ambitious goal to become a middle-income country, with the government stating that Universal Health Coverage plays a key role and that the Ministry of Health aims to ensure comprehensive health coverage for all Ugandans⁷⁷¹. However, there are significant health challenges with leading causes of death reported by USAID being HIV/AIDS and Sexually Transmitted Infections at an estimated 13.2%, and tuberculosis and other respiratory infections at 12.6%⁷⁷². Women and children are particularly affected with 12.1% of deaths caused by maternal and neonatal issues⁷⁷³. With 75% of the disease burden being due to preventable diseases⁷⁷⁴.

Women’s health data is key to understanding the health context in Uganda, and the need for effective health and social policies. The Maternal Mortality rate (MMR) in Africa in 2020 was recorded as 531 deaths per 100,000 live births, with Africa accounting for 69% of maternal deaths worldwide⁷⁷⁵. The World Health Organization⁷⁷⁶ (2023) categorizes Uganda as having a high / moderate MMR alongside other East African countries like Tanzania, Rwanda, and Ethiopia. According to UNFPA the MMR for Uganda stands at 284 per 100,000 live births⁷⁷⁷. With 40.5 deaths per 1,000 live births⁷⁷⁸ and an adolescent birth rate for girls aged between 15-19 at 111 per 1,000 girls⁷⁷⁹. Life expectancy is 66 years for females, 62 years for males⁷⁸⁰.

Maternal mortality rate	284 per 100,000 live births ⁷⁸¹
Infant mortality rate	40.5 deaths per 1,000 live births ⁷⁸²
Adolescent birth rate for girls aged between 15-19	111 per 1,000 girls ⁷⁸³
Life expectancy	66 years for females, 62 years for males ⁷⁸⁴

Table 31: Maternal mortality rate, infant mortality rate, adolescent birth rate and life expectancy in Uganda

⁷⁷¹ [Ministry of Health, Republic of Uganda, 2024](#)

⁷⁷² [USAID, Ministry of Health Roadmap Towards Universal Health Coverage, 2022](#)

⁷⁷³ [USAID, Ministry of Health Roadmap Towards Universal Health Coverage, 2022](#)

⁷⁷⁴ [USAID, Ministry of Health Roadmap Towards Universal Health Coverage, 2022](#)

⁷⁷⁵ [WHO, Analytical Factsheet, Maternal Mortality, March 2023](#)

⁷⁷⁶ [WHO, Analytical Factsheet, Maternal Mortality, March 2023](#)

⁷⁷⁷ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁷⁸ [UNICEF, Uganda, 2024](#)

⁷⁷⁹ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁸⁰ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁸¹ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁸² [UNICEF, Uganda, 2024](#)

⁷⁸³ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁷⁸⁴ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

2. Sexual Exploitation, Abuse and Harassment (SEAH) Laws, Policy, Trends, and Data

i. Any info on SEAH in the workplace? Trends on incidents?

Gender Based Violence (GBV) is a key issue globally; 42% of women in East and Southern Africa experience sexual or physical violence during their lifetime⁷⁸⁵.

Uganda has numerous legal frameworks against domestic violence, such as ‘The Domestic Violence Act 2010, Secs. 2, 4 and 10-14; Penal Code Act, Arts. 123-125’⁷⁸⁶. Additionally, there is in-depth legislation on sexual harassment in the workforce including the ‘Employment Act, Secs. 7, 70, 77, 95 and 96; The Employment (Sexual Harassment) Regulations of 2012, Part VIII (19); and the Computer Misuse Act, 2011, Secs. 24-27’⁷⁸⁷. However, there are still many unlegislated areas regarding SEAH laws and there are no applicable laws regarding femicide or child marriage⁷⁸⁸. Furthermore, the law does not explicitly prohibit discrimination in workplace recruitment based on marital status, parental status, or age.⁷⁸⁹ The lack of this legislation not only affects women but other vulnerable groups.

Uganda’s National Survey on Violence against Women and Girls (VAWG)⁷⁹⁰ (2021) showed a high rate of gender-based violence. Fifty-six percent (56%) of women had a lifetime prevalence of physical or sexual violence or both by an intimate partner.⁷⁹¹ From the age of 15 years, nearly all Ugandan women (95%) had experienced sexual violence or physical violence or both.⁷⁹² With regards to vulnerable groups, childhood sexual abuse is extremely high at 59% with uneducated (never attended school) women and girls more likely to suffer.⁷⁹³

As a vulnerable group, children in Uganda also face considerable challenges with 34% of females in child marriages before reaching 18 years⁷⁹⁴ and 18% of children (5-17 years) engaged in child labour⁷⁹⁵. All ARAF II companies will follow GAPs that include SEAH policies to ensure the protection of vulnerable parties.

Uganda is the 8th country in Africa and 23rd country globally to ratify the International Labour Organization's Convention 190 on Violence and Harassment in the workplace.⁷⁹⁶ Additionally, the Ugandan parliament in 2023 passed the Employment (Amendment Bill) which mandates that all employers must work towards the prevention of sexual harassment, mistreatment, harassment, or

⁷⁸⁵ [World Bank, Standing Up Against GBV in Africa, 2023](#)

⁷⁸⁶ [World Bank, Women, Business and the Law, 2024](#)

⁷⁸⁷ [World Bank, Women, Business and the Law, 2024](#)

⁷⁸⁸ [World Bank, Women, Business and the Law, 2024](#)

⁷⁸⁹ [World Bank, Women, Business and the Law, 2024](#)

⁷⁹⁰ [National Survey on Violence against Women and Girls](#)

⁷⁹¹ [National Survey on Violence against Women and Girls](#)

⁷⁹² [National Survey on Violence against Women and Girls](#)

⁷⁹³ [National Survey on Violence against Women and Girls](#)

⁷⁹⁴ [UNFPA, 2024](#)

⁷⁹⁵ [UNICEF, Uganda, 2024](#)

⁷⁹⁶ [ILO, 2023](#)

violence against any of their employees.⁷⁹⁷ Moreover, the new amendment recognizes domestic workers as workers under labour law, while casual labourers who have worked for six months continuously will be regarded as having a valid contract and consequently entitled to protection as an employee.⁷⁹⁸ However, the bill is awaiting presidential approval.⁷⁹⁹

According to Uganda’s National Survey on Violence Against Women and Girls (2021)⁸⁰⁰ where one in ten women (8%) reported experiencing workplace violence. Of these women 86% had experienced workplace violence in the last year before the survey, violence was particularly high in Kampala and Elgon region and with the ‘most educated women’.⁸⁰¹

Verbal violence was most frequent at 84% and physical harm at 17%.⁸⁰² Furthermore, there was a distinction between women in urban versus women in rural areas with the latter twice as likely to have experienced workplace violence.⁸⁰³ Lastly, women who had migrated recently were also more likely to have experienced workplace violence.⁸⁰⁴

Workplace Violence in Uganda	Statistics
Verbal abuse	84%
Verbal or written abuse	34%
Physical harm	21%
Physical assault/ attack	17%
Any of the above	86%

Table 32: Workplace violence in Uganda⁸⁰⁵

3. Political and governing data

- i. *What is the legal status of women in the country of intervention?*
- ii. *Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?*

⁷⁹⁷ [Human Rights Watch](#)

⁷⁹⁸ [Human Rights Watch](#)

⁷⁹⁹ [Human Rights Watch](#)

⁸⁰⁰ [Uganda’s National Survey on Violence Against Women and Girls \(2021\)](#)

⁸⁰¹ [Uganda Bureau of Statistics, 2021](#)

⁸⁰² [Uganda Bureau of Statistics, 2021](#)

⁸⁰³ [Uganda’s National Survey on Violence Against Women and Girls \(2021\)](#)

⁸⁰⁴ [Uganda’s National Survey on Violence Against Women and Girls \(2021\)](#)

⁸⁰⁵ [Uganda Bureau of Statistics, 2021](#)

Uganda holds regular national elections but has been ruled by the same party National Resistance Movement (NRM) since 1986⁸⁰⁶. Women's equal participation in politics is key to a country's sustainable development. Under UN Sustainable Development Goal 5 women's equal participation in politics, with legislated gender quotas, is suggested as an effective method to achieve gender equality in the political sphere⁸⁰⁷.

In Africa, women account for 21% of local government councilors, with this being 35% in East Africa⁸⁰⁸. Uganda has election list quotas for women, however, like much of Africa there has never been a female president. WEF's Global Gender Gap Index ranks Uganda 49th for women's political empowerment overall⁸⁰⁹. As a patriarchal society, Uganda has strong religious and cultural influences that directly affect gender roles. Gender stereotypes in Uganda are prevalent and affect women's effective participation in politics⁸¹⁰. Cultural stereotypes include women being seen as 'weak and incapable' of decision-making and being less intelligent⁸¹¹. These negative and false stereotypes hamper their chances against male competitors when vying for elective positions⁸¹².

While women in Uganda represent 46% of all elected representatives, women's representation is low in top leadership positions which remain male-dominated⁸¹³. In 2022 in the Ugandan National Parliament, women held 33.8% of the seats⁸¹⁴. According to WEF's Global Gender Gap, the percentage of women in parliament is 0.511, and women in ministerial positions is 0.500⁸¹⁵. The low representation in top leadership presents a gender gap and an opportunity to increase women's participation in high-level politics through activities like community sensitization.

4. Employment data

- i. Labor force participation rate (disaggregated by sex), employment rate (disaggregated by sex), unemployment rate (disaggregated by sex).*

Uganda remains heavily dependent on the services and agriculture sectors, with the service sector contributing 26% of all employment and the agriculture sector at 66% of all employment and industry representing 7% of all employment⁸¹⁶.

The labour force participation rate for women in Uganda is 67.6%, higher than the female rate of 60.7% in Sub-Saharan Africa⁸¹⁷. Nonetheless, more men in Uganda participate in the labour force

⁸⁰⁶ [National Resistance Movement \(NRM\)](#)

⁸⁰⁷ [UN Department of Economic and Social Affairs, SDG 5, 2024](#)

⁸⁰⁸ [UNWomen, Women's Participation in Politics at the Local Government Level in Uganda, 2021](#)

⁸⁰⁹ [World Economic Forum's Global Gender Gap Index, 2023](#)

⁸¹⁰ [UNWomen, Women's Participation in Politics at the Local Government Level in Uganda, 2021](#)

⁸¹¹ [UNWomen, Women's Participation in Politics at the Local Government Level in Uganda, 2021](#)

⁸¹² [UNWomen, Women's Participation in Politics at the Local Government Level in Uganda, 2021](#)

⁸¹³ [UNWomen, Women's Participation in Politics at the Local Government Level in Uganda, 2021](#)

⁸¹⁴ [World Bank, Gender Data Portal, Uganda](#)

⁸¹⁵ [World Economic Forum's Global Gender Gap Index, 2023](#)

⁸¹⁶ [World Bank Data, Uganda Employment, 2022](#)

⁸¹⁷ [World Bank, Gender Data Portal, Uganda](#)

with 72.4% compared to 67.6% of females⁸¹⁸. In addition, women have a higher unemployment rate at 11.7% than men in Uganda at 8.4%⁸¹⁹. Furthermore, more women are in vulnerable employment at 82.8% compared to 68.2% of men⁸²⁰. This means that women are more likely to have informal work arrangements and no social protection, therefore in the case of an economic downfall it would be highly probable they would fall under the poverty line⁸²¹. The vulnerable employment rates in Uganda reflect those seen in Sub-Saharan Africa.

Labour force participation rate, Uganda, females	67.6%
Labour force participation rate, Uganda, males	72.4%
Labour force participation rate in Sub-Saharan Africa, females	60.7%
Labour force participation rate in Sub-Saharan Africa, males	72.8%
Vulnerable employment rate, Uganda, females	82.2%
Vulnerable employment rate, Uganda males	68.2%
Vulnerable employment rate, Sub-Saharan Africa, females	80.5%
Vulnerable employment, Sub-Saharan Africa, males	71.3%

Table 33: Labour force participation rates and employment rates in Uganda⁸²²

5. Social and cultural gender norms

- i. *What are commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention?*
- ii. *What is the division of labour among women and men in the project/program footprint area and/or the country of intervention?*
- iii. *What resources (economic, financial, physical, natural, and other assets) do women and men have access to? Who manages or controls access to these resources?*
- iv. *To what extent do women and men from vulnerable communities participate in decision-making processes?*

⁸¹⁸ [World Bank, Gender Data Portal, Uganda](#)

⁸¹⁹ [UNWomen, Women Count, Uganda](#)

⁸²⁰ [World Bank, Gender Data Portal, Uganda](#)

⁸²¹ [World Bank, Gender Data Portal, Uganda](#)

⁸²² [World Bank, Gender Data Portal, Uganda](#)

Uganda has a Social Progress Index (SPI) of 45.51 out of 100 and is classified as a Tier 5 country, whereas Kenya has an SPI of 53.62 and is classified as Tier 4⁸²³. The statistics suggest that the basic needs such as nutrition and medical care, housing, water sanitation and safety are below global standards⁸²⁴.

Women in Uganda face numerous gender stereotypes, with women viewed as responsible for the majority of the unpaid care work. Women spend 132 minutes on childcare daily compared to 87 minutes by their male peers⁸²⁵. Furthermore, as a patriarchal society, there is a power imbalance in relations between men and women and boys and girls at three distinct levels: household, community and national⁸²⁶. Additionally, research by UNDP suggests that diverse gender norms and practices are prevalent in Uganda, including an acceptance of violence to resolve marriage conflicts, the early marriage of girls under 18, and men as landowners with women's access granted by men⁸²⁷.

While laws prohibit discrimination against People with Disabilities (PWDs), most people from these vulnerable communities have lower standards of living and face higher rates of discrimination and violence⁸²⁸. Moreover, women and girls with disabilities are reported to face serious discrimination from their families and community⁸²⁹. This context limits their full participation in the decision-making process and as equal members of society.

Legally women and men have equal ownership rights of immovable property and sons and daughters have equal rights to inherit assets⁸³⁰. Additionally, female and male spouses have equal rights with regard to inheritance⁸³¹. However, women in Uganda still face substantial barriers with regard to access to credit, with no laws prohibiting the discrimination of access based on gender⁸³².

6. Education data and analysis

- i. *Educational status of girls and boys, adult literacy rate (disaggregated by sex)*
- ii. *Do women have equal access to education, technical knowledge, and/or skill upgradation? (access to technical knowledge and skills upgradation is discussed in agribusines section 9)*

Only 24.9% of girls and 27.4% of boys in Uganda have completed lower secondary school⁸³³. This is much lower than the average in Sub-Saharan Africa at 46% for boys and 43% for girls⁸³⁴. Currently, the adult literacy rate is 84.4% for males and 76.5% for females, representing a 7.9% gender gap in

⁸²³ [Social Progress Index, 2024](#)

⁸²⁴ [Social Progress Index, 2024](#)

⁸²⁵ [ILO Care work and care jobs for the future of decent work, 2018](#)

⁸²⁶ [UNDP Uganda Gender Equality Strategy 2022-2025](#)

⁸²⁷ [UNDP Uganda Gender Equality Strategy 2022-2025](#)

⁸²⁸ [UNDP Uganda Gender Equality Strategy 2022-2025](#)

⁸²⁹ [UNDP Uganda Gender Equality Strategy 2022-2025](#)

⁸³⁰ [World Bank, Women, Business and the Law, 2024](#)

⁸³¹ [World Bank, Women, Business and the Law, 2024](#)

⁸³² [World Bank, Women, Business and the Law, 2024](#)

⁸³³ [World Bank, Gender Data Portal, Uganda](#)

⁸³⁴ [World Bank, Gender Data Portal, Uganda](#)

adult literacy⁸³⁵. To close this gap, dedicated female literacy and training activities are necessary. On the other hand, Uganda has a higher adult literacy rate than the average rate in Sub-Saharan Africa being males at 74.2% and females at 61.4%⁸³⁶.

7. Economic data

- i. *X% more women reached with formal financial services in the target population than the assessed national/regional average.*
- ii. *X% more women adopt mobile phones and use digital services in the target population than the assessed national/regional average.*

The country's GDP is estimated to grow by 6.0% in FY24, while poverty is estimated to reduce from 41.3% (rate of \$2.15/day international poverty line) to 40.1% in 2026⁸³⁷. The service sector has the highest contribution to the GDP at more than 40%, industry at more than 25% while agriculture contributes 22%-24% to the GDP⁸³⁸. With a Human Development Index (HDI) of 0.525, it ranks 'low in the human development category' at 166/191 territories⁸³⁹. Nominal expenditure is expected to grow from UGX 48,131 billion in 2022/23 to UGX 52,737 billion in 2023/24⁸⁴⁰. The national budget for FY2023/24 is UGX 52.7 trillion, an increase of 9.5% from UGX 48.13 trillion for FY2022/23⁸⁴¹. The biggest expenditure item in the Ugandan budget is debt servicing standing at 42% of the spending in FY2021/22⁸⁴².

Women's economic participation and opportunity in Uganda varies greatly with a labour force participation rate of 67.6% compared to 72.4% of males⁸⁴³. Wage equality for similar work is scored at 0.720 by WEF, with a scale from 1- 7 (best), suggesting that women do not get paid the same wages and therefore there is a gender pay gap⁸⁴⁴. Account ownership also greatly differs between men and women in Uganda with 52.7% of women with an account versus 66.1% of men. Uganda surpasses Sub-Saharan Africa in which 37% of women own accounts versus 48% of men.

In Uganda in 2017, 52.7% of women and 66.1% of men had ownership of an account at a financial institution or mobile-money-service provider. This gap of 13.4% is larger than the aggregate gap in Sub-Saharan Africa (11.5%).⁸⁴⁵In 2021 in Uganda, 28.3% of men and 22.4% of women used a mobile phone or the internet to pay bills in the past 12 months⁸⁴⁶. These are both higher than the average in Sub-Saharan Africa⁸⁴⁷.

⁸³⁵ [World Bank, Gender Data Portal, Uganda](#)

⁸³⁶ [World Bank, Gender Data Portal, Uganda](#)

⁸³⁷ [World Bank Uganda Overview, 2024](#)

⁸³⁸ [UNICEF, Uganda National Budget Brief, FY 2023/24](#)

⁸³⁹ [UNDP, Uganda Launch the 2021/2022 Human Development Report, 2022](#)

⁸⁴⁰ [UNICEF, Uganda National Budget Brief, FY 2023/24](#)

⁸⁴¹ [Grant Thornton Uganda, Uganda Budget 2023](#)

⁸⁴² [Grant Thornton Uganda, Uganda Budget 2023](#)

⁸⁴³ [World Bank, Gender Data Portal, Uganda](#)

⁸⁴⁴ [Global Gender Gap Report 2023 WEF](#)

⁸⁴⁵ [World Bank, Gender Data Portal, Uganda](#)

⁸⁴⁶ [World Bank, Gender Data Portal, Uganda](#)

⁸⁴⁷ [World Bank, Gender Data Portal, Uganda](#)

Sector-specific data

8. Agri-business data

- i. *What is the situation of women and men in the specific sector of intervention or in the project/program footprint area?*
- ii. *What roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?*
- iii. *Do women have equal access to education, technical knowledge, and/or skill upgradation with regard to agriculture?*
- iv. *What are the differential needs/priorities of women and men in the context of the project/program?*
- v. *X% more women participating in agricultural extension programs in the target population than the assessed national/regional average.*
- vi. *It would be helpful to include agri-businesses supporting farmers. Are they hiring women - are there female entrepreneurs? How hard is it for them to attract capital?*

In Uganda, the agriculture sector accounts for 66% of total employment⁸⁴⁸. 72% of all employed women in Uganda are working in the agriculture sector, compared to 61% of all employed men⁸⁴⁹.

Women face significant barriers in the agriculture sector; World Bank reports show there are increasing land values in Uganda, which results in the issues of individual land titles and consequently, women who have less power and influence could suffer exclusion⁸⁵⁰. The issue of women having less access to land is further exacerbated by the fact that in Uganda's customary law land is patrilineal⁸⁵¹. Consequently, women rarely inherit land as it passes through male relatives, despite legal frameworks guaranteeing women's rights to land⁸⁵².

Solutions to address women's lack of access to land and credit include:

Special pathways for credit, gender lens investments that facilitate the purchase of land, and lastly networking opportunities and associations that allow for pooled savings and provision of credit.

Another challenge women in Uganda face is that they are not heads of farming households. 23% of smallholder farming households are headed by women, while 77% have men in charge⁸⁵³. This is at odds with the fact that women account for 55% of the active population in agriculture, contribute to over 75% of all the farm labour and 90% of primary processing operations⁸⁵⁴. 49% of women engage in subsistence agriculture while 37% of men engage in it. Conversely, 32.5% of male-headed households carry out market-oriented agriculture (cash- crops etc.) compared to 19.5% of female-

⁸⁴⁸ [World Bank Data Portal, 2022](#)

⁸⁴⁹ [World Bank Data Portal, 2022](#)

⁸⁵⁰ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁵¹ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁵² [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁵³ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁵⁴ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

headed households.⁸⁵⁵ These statistics highlight the gender disparity in profit-making agricultural ventures with women being adversely affected since they are principally subsistence farmers.

Land access presents another significant hurdle for women in agriculture. As they typically depend on their husbands as household heads, lacking land ownership rights hampers their decision-making autonomy regarding crop choices aimed at improving environmental sustainability. While Uganda's laws and policies ostensibly offer protection for women, the reality is obscured by high levels of illiteracy and limited access to translated legal documents, which are primarily available in English. This lack of awareness hinders women from exercising their rights effectively. However, when speaking to women in Uganda they believe that once women are educated about their legal entitlements and empowered with knowledge, they become unstoppable, unlocking their potential by understanding and leveraging the protective provisions within the legal framework⁸⁵⁶.

There are also gender disparities in the level of quality and education of females and males in agriculture. Female plot managers complete an average of 1.9 fewer years of schooling than male managers. For each additional year of schooling that men receive, their agricultural productivity is boosted⁸⁵⁷. Additionally, female plot managers are less likely to receive extension advice from Uganda's National Agricultural Advisory Services (NAADS) which could signify that Uganda's extension services are attuned to male farmers' demands in terms of crop choices, location of activities, and timing⁸⁵⁸. While the use of many non-labour inputs is low for both men and women, plots managed by men or jointly with family members are nearly twice as likely to use pesticides and organic fertilizers than plots managed by women. This imbalance increases the gender productivity gap⁸⁵⁹. Solutions include ensuring that women apply appropriate quantities of non-labor inputs which could both reduce the productivity gap and increase the supply of food available for Ugandan households⁸⁶⁰.

To address the education gap and lack of relevant information, a possible solution is the provision of mobile phones to women. Research shows that women in Uganda benefit from technology, as they have increased access to information which leads to an increase in bargaining power in the household⁸⁶¹. Men on the other hand already had access to markets and information⁸⁶².

Employment in agriculture, female (% of female employment)	72% ⁸⁶³
Employment in agriculture, male (% of male employment)	61% ⁸⁶⁴

⁸⁵⁵ [UN Women, UNDP and UN Environment, Factors driving the Gender Gap in Agricultural Productivity: Uganda, 2018](#)

⁸⁵⁶ [Gender and Climate Change Discourses in Uganda, 2023](#)

⁸⁵⁷ [World Bank, Improving Opportunities for Women Farmers in Africa, 2014](#)

⁸⁵⁸ [World Bank, Improving Opportunities for Women Farmers in Africa, 2014](#)

⁸⁵⁹ [World Bank, Improving Opportunities for Women Farmers in Africa, 2014](#)

⁸⁶⁰ [World Bank, Improving Opportunities for Women Farmers in Africa, 2014](#)

⁸⁶¹ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁶² [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁶³ [World Bank Data Portal, 2022](#)

⁸⁶⁴ [World Bank Data Portal, 2022](#)

Employment in agriculture (% of total employment)	66% ⁸⁶⁵
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Table 34: Employment in agriculture in Uganda

The agriculture sector budget for the period 2016/17 to 2019/20 represented 4% of the total budget. Despite investment efforts, the agriculture sector has exhibited an inability to absorb the allocated budget annually partly due to delays in procurement processes. Performance over the five years reveals that the sector accumulated UGX 277.1 billion in unspent balances, largely under the development budget, amounting to UGX 255.8 (92%) of the budget.

Research has shown that government extension programmes reach only 22% of farmers and do not regularly envisage female farmers.⁸⁶⁶

The sector budget does not specify the total amount of funds spent on women’s empowerment specifically, however, several key service delivery interventions that facilitated women’s empowerment were noted, including:

- Accelerating the transformation of agriculture from subsistence to commercial production by connecting smallholder farmers to the value-chain for the commercialization of agriculture;
- The Uganda Coffee Development Authority (UCDA) in collaboration with the NAADS/OWC procured and distributed 1.035 billion coffee seedlings countrywide during FY2016/17–2020/21 to the vulnerable, including women;
- In FY 2017/18, a total of 1,065 farmer demonstration plots were established to enhance the capacity of vulnerable farmers, including women. UCDA invested substantially in coffee research and technology generation at the National Coffee Research Institute; and
- Recruitment of sub-county and district extension staff to increase farmers’ access to agricultural advisory services.

Agriculture performance is challenged by: wastage of cropping materials due to late deliveries when planting season is over; high seedling failure rate due to harsh weather conditions; lack of extension advisory services to help in controlling pests and diseases; distribution of technologies that were not requested by beneficiaries; poor quality of inputs; inadequate volumes; and low outreach of the programme to farmers.

Through the Rural Electrification Programme (REA), GoU also provides subsidies to individuals who wish to access energy through solar technology that is outside the grid from a radius of 100 metres. Under this arrangement, the REA works with several MFIs that give solar loans. REA repays 30% of the loan while the consumer pays the remaining 70%. This arrangement has for instance connected the Kalangala district, which is one of the hard-to-reach areas in Uganda, to power through a solar generation system of 1.6 Megawatts. Nevertheless, the cost of grid electricity in Uganda is still high compared to the average income, with a unit of electricity at UGX 718.5. If on average a rural

⁸⁶⁵ [World Bank Data Portal, 2022](#)

⁸⁶⁶ [UN Women, Uganda Gender Analysis](#)

household consumes a unit of electricity in a day, they would spend UGX 21,555 on electricity monthly. This is often unaffordable for vulnerable persons, especially women. Taken together with the high initial cost of grid electricity connection, it is difficult for vulnerable women to access this source of energy. The provision of renewable energy is also comparatively costly.

The Ugandan government is currently implementing the Agricultural Credit Facility (ACF). This is a risk-sharing public-private partnership with the goal of providing medium- and long-term financing to agricultural projects, agro-processing, and grain trade at lower than market interest rates. Implemented in 2009, the ACF leverages the resources of participating financial institutions to bridge the financing gap for commercialised agricultural production⁸⁶⁷.

3.9 million women in Uganda contribute to 7 million agricultural households. However, there is a significant gender gap as women in agribusinesses are principally hired for ‘on-farm production activities’.⁸⁶⁸ Consequently, in agribusinesses, women are rarely involved in essential procedures including distribution, packaging, warehousing, and marketing.⁸⁶⁹ The cost of this gender gap productivity gap in agriculture is estimated by UN Women as between US\$57 million in Uganda.⁸⁷⁰ Furthermore, according to the World Bank Uganda records some of the highest levels of female entrepreneurs globally with the majority being in agriculture.⁸⁷¹ The Ugandan government is keenly aware of this and has included gender targets in Uganda’s Green Growth and Development strategy targeting women for 75% of all the new ‘green jobs’ in agriculture. The strategy also envisions women filling 70% of jobs in natural resource management.⁸⁷²

The 2X Criteria Thresholds,⁸⁷³ which provide minimum requirements for global gender lens investment and organizational practices, specific to the agribusiness and food sector in Uganda are as follows, shown in Table 5 below.

Topic	Criteria
Entrepreneurship & Ownership	Founded by a woman (or group of women) that retain an active role OR at least 50% of shares owned by women.
Leadership	At least 40% of senior management is women OR 35% of board members are women.
Employment	At least 50% of employees/workers are women AND at least one quality employment indicator in place beyond what is legally required.
Products and Services	Products/services are offered that enhance the well-being of women/girls.
Supply Chain	Explicit commitment to women in the supply chain is demonstrated AND at least one quality employment indicator in place in the supply chain beyond what is legally required.
Governance	At least 3 practices that demonstrate intentional efforts to drive gender equality, representing 1 in EACH sub-dimension of: 1) Strategic action

⁸⁶⁷ [Assessing National Funding for Women’s Economic Empowerment in Uganda, 2022](#)

⁸⁶⁸ [UN Women, 2024](#)

⁸⁶⁹ [UN Women, 2024](#)

⁸⁷⁰ [World Bank, 2022](#)

⁸⁷¹ [World Bank, 2022](#)

⁸⁷² [World Bank, 2022](#)

⁸⁷³ [2X Criteria, 2024](#)

	2) Management systems
	3) Data

Table 35: 2X Criteria for the Agribusiness and Food sector in Uganda⁸⁷⁴

9. Climate change and agriculture

- v. *Will there be any anticipated differences in men’s and women’s vulnerability and adaptive capacity to climate change? If so, what are these?*
- vi. *How does climate change affect female farmers vs male farmers?*
- vii. *Are there existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area?*
- viii. *Any research on how women respond to shocks? Does less access to capital mean harder time recovering?*

Uganda has a tropical climate, which is known for its stable rainfall patterns. However, it has recently faced significant climate shifts⁸⁷⁵. These changes include rising temperatures leading to more frequent warm days and less predictable, unevenly distributed rainfall⁸⁷⁶. Prolonged droughts pose a threat to critical crops and the livelihood security of the predominantly rural population, with around 72% residing in rural areas⁸⁷⁷.

Climate change exacerbates existing challenges for women in Uganda, exposing them to gendered and climate-related risks. During climate disasters and extended droughts, women and girls’ shoulder increased household responsibilities and undertake longer, riskier journeys for essential resources like food and water, putting them at greater risk of sexual exploitation and gender-based violence⁸⁷⁸. Women face different challenges from men because their societal roles have been constructed differently. Women in rural areas depend mainly on natural resources more than men, therefore, they are more vulnerable to climate change. On the other hand, women face socio-economic and political barriers, and this makes them more susceptible and vulnerable to disasters⁸⁷⁹.

The impact of climate change on Uganda is evident through extreme weather events such as droughts, floods, and rising temperatures affecting various regions. There is a need for the development of robust support systems to cushion rural women from the vulnerable effects of climate change. This necessitates community-driven mobilization efforts, with numerous non-profit organizations undertaking projects to address climate challenges and assist local communities in adapting to these changes⁸⁸⁰. These organizations focus on empowering local

⁸⁷⁴ [2X Criteria, 2024](#)

⁸⁷⁵ [IOM, 2021](#)

⁸⁷⁶ [Ministry of Water and Environment, 2015](#)

⁸⁷⁷ [Ministry of Water and Environment, 2015](#)

⁸⁷⁸ [UNDP, Gevers et al., 2020](#)

⁸⁷⁹ [Nakiyemba, 2022](#)

⁸⁸⁰ [Becktold, 2017](#)

communities, amplifying their voices, and cultivating leaders within the climate movement⁸⁸¹. Through such initiatives, women actively involved in combating climate change are empowered, and these organizations aim to raise awareness about their issues⁸⁸².

According to UN Climate Change (2023),⁸⁸³ Women in rural Uganda are key to agriculture and natural resource management. Women are directly impacted by climate change, for instance, in rural areas women are expected to collect biomass and water, which is directly affected by natural disasters⁸⁸⁴. Additionally, they face greater challenges accessing finances, resources, services and information⁸⁸⁵. Consequently, they are less able to face and adapt to the challenges occasioned by climate change.

Women engaged in farming face a myriad of challenges, one of which stems from the impacts of climate change on their agricultural activities. Limited financial resources often restrict their access to comprehensive agricultural advisories, leaving them reliant on generalized governmental information that may not adequately address their specific needs. This lack of tailored guidance exacerbates their vulnerability, particularly concerning their ability to adapt to changing climate conditions, as they are less likely to benefit from support initiatives compared to their male counterparts⁸⁸⁶.

Additionally, research shows that women perceive climate change and related shocks, but they have less access to information on the type of changes and the proper response options, and practical adaptations, leading to them being adversely affected⁸⁸⁷.

10. Vulnerable Subgroups

- i. *Could there be a short section on vulnerable subgroups. e.g. children, girls, women and men with disabilities, the elderly, widows, indigenous? Any specific info on them?*

Vulnerable and Marginalized Group Framework (VMGF)

Ethnic minority groups in Uganda, as identified by the World Bank's ESS7 on VMGs, include the Batwa (Twa or Pigmies), Ik, Benet (Ndorobos), and Tepeth (Soo)⁸⁸⁸. These groups face historical and ongoing challenges such as discrimination, limited access to resources, lower health and education standards, social exclusion, and economic isolation. Factors contributing to their marginalization include land dispossession, a focus on modern agriculture over traditional livelihoods, limited education access, lack of information about government programs, unequal development of social infrastructure, limited access to justice, and financial exclusion⁸⁸⁹.

⁸⁸¹ [Derler, 2020; Beckett, 2017](#)

⁸⁸² [Derler, 2020](#)

⁸⁸³ [UNFCCC, 2023](#)

⁸⁸⁴ [UNFCCC, 2023](#)

⁸⁸⁵ [UNFCCC, 2023](#)

⁸⁸⁶ [Gender and Climate Change Discourses in Uganda, 2023](#)

⁸⁸⁷ [World Bank, Closing the Gender Divide in Agriculture, 2018](#)

⁸⁸⁸ [National Agricultural Policy, 2013](#)

⁸⁸⁹ [National Agricultural Policy, 2013](#)

The Government of Uganda, through its Ministry of Agriculture Animal Industry and Fisheries (MAAIF), is currently preparing VMGF, in collaboration with the World Bank; under the Uganda Climate Smart Agriculture Transformation (UCSAT) Project.⁸⁹⁰

The VMGF project intends to reverse the effects of climate change and sustainably, increase agricultural productivity and household incomes while enhancing resilience to shocks through addressing the primary drivers of poverty in the northern and eastern regions of Uganda⁸⁹¹. The targets are the most vulnerable and marginalised communities with low productivity and who engage in low-value economic activity that makes them more vulnerable to climate change shocks⁸⁹².

The proposed Uganda Climate Smart Agricultural Transformation Project interventions will target addressing the primary drivers of poverty in the north-eastern dry lands (Karamoja); north-eastern savannah grasslands covering areas of east Acholi and northern Lango; Kyoga plains in areas of SE Lango, Teso, Bukedi and northern Busoga sub-regions; western highlands, southern Highlands, Southern drylands, lake Albert crescent and eastern areas mainly Elgon highlands sub-regions of Bugisu and Sebei⁸⁹³. These sub-regions and agro-ecological zones are targeted because of increasing and high levels of poverty, and land and natural resource degradation; as well as low value production, which are anchored in low productivity from engaging in low value economic activities making communities more vulnerable to climate change shocks. The project will support investments in technology and market-driven productivity increases in climate smart value chains⁸⁹⁴. These investments will contribute to reversing the effects of climate change thereby sustainably increasing agricultural productivity and household incomes while enhancing resilience to climatic shocks.

Youth and children

Uganda boasts a population of 49.9 million⁸⁹⁵. With a large youth population with 44% of the population aged between 0-14, 54% aged between 15-64 and only 2% aged 65% and older⁸⁹⁶. Children form part of the vulnerable groups in Uganda with the⁸⁹⁷ indicating that 51% of the nation's children are either 'critically or moderately vulnerable.' The report indicates poverty as a leading cause of their vulnerability⁸⁹⁸. Moreover, malnutrition, diseases, lack of access to education and HIV treatment and violations of child protection regulations also occasion children's vulnerability in Uganda⁸⁹⁹. Sixteen percent (16%) of children in Uganda have a disability and only 5% of these children can access education at inclusive schools and 10% at special schools⁹⁰⁰.

People with Disability

The Ministry of Gender, Labour and Social Development are charged with ensuring the inclusion of Persons with Disabilities. The Persons with Disabilities Act 2023⁹⁰¹, aims to 'foster resilience and

⁸⁹⁰ [National Agricultural Policy, 2013](#)

⁸⁹¹ [National Agricultural Policy, 2013](#)

⁸⁹² [National Agricultural Policy, 2013](#)

⁸⁹³ [National Agricultural Policy, 2013](#)

⁸⁹⁴ [National Agricultural Policy, 2013](#)

⁸⁹⁵ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁸⁹⁶ [UNFPA 2024 World Population Dashboard Uganda, 2024](#)

⁸⁹⁷ [National Child Policy 2020](#)

⁸⁹⁸ [UNICEF, National Child Policy 2020, Uganda](#)

⁸⁹⁹ [UNICEF, National Child Policy 2020, Uganda](#)

⁹⁰⁰ [World Bank, 2020](#)

⁹⁰¹ [Persons with Disabilities Act, 2023](#)

inclusion of Persons with disabilities in development.’ This goal will be achieved through increased access to livelihood programmes, utilization of goods, services and facilities and adequate protection of people with disabilities facing abuse and neglect. The Mastercard Foundation (2023)⁹⁰² reports that 3.2% of Ugandan Youth have disabilities, and youth with disabilities are twice as likely not to access school education. Moreover, the estimated earnings of people with disabilities are 74% lower than the earnings of people without disabilities. Women with disabilities are also significantly worse off in employment indicators than their male counterparts with disabilities⁹⁰³.

⁹⁰² [Mastercard, 2023](#)

⁹⁰³ [Mastercard Foundation](#)

11. Organizations that Support Women Entrepreneurs in Specific Country (focus on the agriculture sector)

Organisation	Description
Support for Women in Agriculture and Environment (SWAGEN) ⁹⁰⁴	<p>SWAGEN is an indigenous organization founded and owned by grassroots women in Uganda. The organization came into existence in 1998 out of a felt need to go beyond engaging women at the National level due to the proliferation of women-focused NGOs at the national level. Its mission is to create strong women groups capable of active participation in and meaningful contributions to mainstream national development.</p> <p>SWAGEN advocates for a transition to agroecology as the food production model in Africa as opposed to industrial agriculture. Agroecology is a people-centred system of sustainable agriculture combining indigenous knowledge with cutting-edge science, making the best use of nature to create healthy communities. SWAGEN supports small-scale food producers to build a sustainable, resilient, diverse, healthy, productive, and culturally appropriate food system for Africa.</p>
Association of Uganda Professional Women in Agriculture and Environment (AUPWAE) ⁹⁰⁵	<p>AUPWAE is an association of professional women qualified and with vast experience in the fields of Agriculture, Forestry, Fisheries, Food Science and Technology, Environmental Science and Veterinary Medicine. Founded in 1992, it currently boasts a membership of 300 professional women working in both private and public sectors in all regions of the country. One of their key objectives is to enhance the ability of rural women to acquire and utilize appropriate knowledge, technology and skills for improved food security, income generation and environment conservation. The organization promotes training on entrepreneurship skills and business planning, value chain development and implementation, institutional capacity development, resource mobilization and improved agricultural and environment conservation technologies.</p>
Rural Women Empowerment Network (ROWONET) ⁹⁰⁶	<p>Rural Women Empowerment Network (ROWONET) advances equity for women and girls throughout rural Uganda through research, advocacy, capacity building, and networking. A membership organization comprising 179 women-led organizations across Uganda that represent the communities ROWONET serves, all members share a common vision: equality and socio-economic justice for women and girls. Some of the key focus areas by ROWONET include promoting climate-smart agriculture, enhancing access to clean water drinking water and promoting the use of renewable energy technologies in rural areas.</p>
Uganda Women's Trust (UWT) ⁹⁰⁷	<p>UWT links the lack of economic empowerment among women to the current development challenges such as gender-based violence; education (quality, access, dropout rates, retention); corruption; maternal mortality; among others. UWT has three approaches to women's economic empowerment:</p>

⁹⁰⁴ [Support for Women in Agriculture and Environment \(SWAGEN\)](#)

⁹⁰⁵ [Association of Uganda Professional Women in Agriculture and Environment \(AUPWAE\)](#)

⁹⁰⁶ [Rural Women Empowerment Network](#)

⁹⁰⁷ [Home | Uganda Women's Trust](#)

	<p>Building capacity of the women in agriculture for both household food security and household income, providing inputs and linking them to relevant services like agriculture training centres and marketing groups.</p> <p>Building entrepreneurship skills among women and encouraging women to work in groups to save and be loanable.</p> <p>Enhancing adult learning and skills development so that women can negotiate, participate and make informed decisions in all aspects of their social, political and economic lives.</p>
Organization for Rural Development (ORUDE) ⁹⁰⁸	<p>ORUDE is a grassroots NGO in south-eastern Uganda. Formed in 1997, the organization had been mobilizing and training rural women's economic groups and preparing them to absorb credit. It then helped the groups to open savings accounts with microfinance institutions (MFIs) from which they hoped their members could access credit.</p>
Youth Go Green ⁹⁰⁹	<p>Youth Go Green is a youth-led umbrella organization of youth engaged in climate change, resilience, green growth, environment protection, SDGs, and youth empowerment activities in Uganda & other African countries. The organization's mission is to empower and engage young people in pursuit of low-carbon socio-economic development pathways. Some of its key thematic areas relevant to the project include climate change adaptation and mitigation, biodiversity conservation, green growth and youth skilling and empowerment.</p>
The Young Farmers' Federation of Uganda (UNYFA) ⁹¹⁰	<p>UNYFA is an umbrella body for young farmers in Uganda, established in 2016, and launched in June 2017, as a duly incorporated member-based organization, with 54 members registered as District Young Farmers' Associations (DYFAs), farmer youth groups and school agricultural clubs, with a total of over 35,000 individual young farmers across the country. The organization is driven by the desire to have holistically transformed youth in agriculture for a sustainable economy; its target group is of youth between 12 to 39 years of age who are rural and/or urban agro-based and young farmers in and out of school/institutions. UNYFA provides platforms for these youths where they can express and acquire tailor-made training to enhance their livelihoods.</p>
Young Farmers Champions Network (YOFCHAN) ⁹¹¹	<p>YOFCHAN is a network of young agri-entrepreneurs (14 - 40 years) working together to shape the future of agribusiness. It was formed to support young farmers with the necessary entrepreneurial skills to run agri-business enterprises, incubate their agribusiness ideas into viable businesses, provide affordable finances and link them to sustainable markets for them to embrace farming as a profitable business.</p>

Table 36: Ugandan organizations that support women in agriculture

⁹⁰⁸ [Organization for Rural Development](#)

⁹⁰⁹ [Youth Go Green](#)

⁹¹⁰ [The Young Farmers' Federation of Uganda \(UNYFA\)](#)

⁹¹¹ [Young Farmers Champions Network](#)

Gender Gaps, Opportunities, Risks and Mitigants

1. Generate information on gender gaps, needs, and constraints

Gender Gaps	Needs	Constraints	Gender Opportunities & ARAF II GAP (in bold)
SEAH Laws, Policies and Trends	<p>High rates of GBV - after 15 years nearly all Ugandan women (95%) had experienced sexual violence or physical violence or both</p>	<p>Increased GBV awareness</p> <p>SEAH policies to reduce occurrence in the workplace</p>	<p>Available resources and budgets</p> <p>While the legislation explicitly addresses SEAH, social and cultural norms are a constraint</p> <ul style="list-style-type: none"> • GAP will propose a grievance mechanism to address SEAH issues for company employees and smallholder farmers • TA GBV awareness training for companies and communities and relevant stakeholders • Access NGO and community networks that support the prevention of GBVH e.g. UNWomen, Support for Women in Agriculture and Environment (SWAGEN)
Politics and Leadership	<p>Patriarchal society with strong gender stereotypes such as women being unable to lead</p> <p>Lack of women in top leadership positions</p>	<p>Community sensitization</p> <p>Support for female leadership in the agribusiness sector</p>	<p>Gender biases specifically related to women in leadership positions</p> <p>Socio-cultural constraints regarding women's roles as caretakers</p> <ul style="list-style-type: none"> • Collection of sex-disaggregated data for company information and companies • Inclusion of gender quotas in GAP for companies • TA training to address social and cultural norms • Women leadership programs for companies and smallholder female farmers • Training on unconscious bias during recruitment for management roles in companies
Employment	<p>Fewer women in the labour force (67.6% females vs 72.4% males)</p>	<p>More opportunities for women as</p>	<p>Available resources and budgets</p> <ul style="list-style-type: none"> • Gender-based due diligence on the gender composition of staff, commitment to gender equity, policies,

	<p>More women in vulnerable employment (82.8% females vs 68.2% males)</p>	<p>leaders and employees</p> <p>Women owning agribusinesses.</p> <p>Contracts to protect women farmers in vulnerable employment</p>	<p>Access to skilled female employees</p> <p>Perceptions of women working in a traditionally male-dominated sector and roles</p>	<p>procedures, and org capacity for a safe and equitable workplace GAPs for all portfolio companies</p> <ul style="list-style-type: none"> Targeted gender quotas to invest in women-led agribusinesses. GAP to ensure that companies provide contracts to smallholder farmers (including women and vulnerable groups) Upskill women to provide technical skills required Gender-friendly employment policies (maternity leave, pay equity, flexible working hours) Gender-intentional recruitment processes
<p>Social and Cultural gender norms</p>	<p>Persistent Gender stereotypes – including women as principal caretakers, early marriage</p> <p>Barriers with access to credit due to gender stereotypes and access to land</p>	<p>Gender norm sensitization</p> <p>Increased access to land and credit</p>	<p>Social and cultural norms deeply embedded in communities (patriarchal society)</p> <p>Social perceptions of women working in traditionally male-dominated sectors</p>	<ul style="list-style-type: none"> TA Gender stereotype training Target companies that look to support smallholder female farmers and provide credit and training
<p>Education</p>	<p>Access to formal primary education</p> <p>Low adult literacy rates</p>		<p>Access to bursaries, internships and technical training</p>	<ul style="list-style-type: none"> ARAF II will design gender-specific gender interventions through technical assistance funding designed to enhance women’s access to financial services, agriculture extension

				<p>programs and utilization of digital services</p> <ul style="list-style-type: none"> • Increase access to technical training for smallholder female farmers through companies • Provide internship and bursary opportunities targeting women
<p>Agribusiness analysis</p> <p>And</p> <p>Economic Participation</p>	<p>Women’s lack of access to land and credit</p> <p>Women’s focus on subsistence farming as opposed to market-oriented farming</p> <p>Level of education on farming methods, agricultural productivity, and use of non-labour inputs</p>	<p>Access to land and credit</p> <p>Increased awareness of market-oriented farming and networks</p> <p>Increased training on farming methods, agricultural productivity, use of non-labour inputs</p>	<p>Lack of financial and business literacy</p> <p>Lack of networks to support female agribusiness ventures</p> <p>Lack of knowledge regarding farming practices</p>	<ul style="list-style-type: none"> • Gender-based due diligence on the gender composition of staff, commitment to gender equity, policies, procedures, and org capacity for a safe and equitable workplace GAPs for all portfolio companies • ARAF II will design gender-specific gender interventions through technical assistance funding designed to enhance women’s access to financial services, agriculture extension programs and utilization of digital services • Investee companies to provide business opportunities for smallholder female farmers • Women will have an increased market to sell produce to agribusiness companies • TA for companies for them to train smallholder female farmers on farming methods, agricultural productivity, and the use of non-labour inputs

				<ul style="list-style-type: none">• Companies' procurement policies that support smallholder female farmers and females in the supply chain
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Table 37: Information on gender gaps, needs, and constraints

2. Identify risks and propose mitigants to address any situations that might hinder gender equality and women’s empowerment.

Risks	Mitigants
<p>Social norms – women's principal caregivers and household responsibilities inhibit the ability to take up farming/ work opportunities</p> <p>Lack of access to land due to social norms (patrilineal cultural norms)</p>	<ul style="list-style-type: none"> - Community research to understand risks - Onsite childcare, issuing for firewood onsite, offering of monthly food hampers - ARAF II invests in women-led agribusiness companies allowing for access to finance and consequently ability to purchase land - ARAF II recognizes the cultural nuances involved in our focus communities while encouraging a greater role of women in decision-making
<p>Risk of GBV and harassment – agriculture is a male-dominated environment</p>	<ul style="list-style-type: none"> - Companies to facilitate gender sensitivity and ensure SEAH policies which will be present in GAP
<p>Climate and Migration</p>	<ul style="list-style-type: none"> - Investment could facilitate combined efforts to ensure the availability of water (wells, taps) to reduce migration - Community projects with TA to ensure climate adaptation measures (planting, water efficiency, biodiversity to control pests) and migration - In terms of their needs, ARAF II will address the needs of farming communities regardless of gender with improvement in livelihoods, productivity and climate resilience being the primary measures of success.

Table 38: Risks that might hinder gender equality and women’s empowerment

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