

CLIMATE-SMART AGRICULTURE



Feeding the planet and combating climate change require a transformation in the way we grow, distribute, and consume food. The agri-food system is part of the climate change problem and is integral to its solution. The sector accounts for 34 percent of global carbon emissions, yet receives only 3 percent of climate finance. At the same time, food production remains extremely vulnerable to the effects of climate change. Achieving the Paris Agreement goals and ensuring a sustainable future requires a rapid scaling up of investment in climate-smart, inclusive agriculture.



Our goal is to support the adoption of climate-smart agriculture across the value chain. This will boost productivity, strengthen resilience to climate-related risks, and reduce greenhouse gas emissions for each calorie of food produced.



As the largest funder of agricultural development assistance, the World Bank is a global leader in supporting the transition to more efficient, climate-smart food systems. We have global reach through investments, technical assistance, knowledge generation, and partnerships. We work with client governments to provide solutions that address global climate priorities, while recognizing national contexts and development objectives. Since the Paris Agreement was signed in 2015, we have increased annual funding for climate-smart agriculture sevenfold.

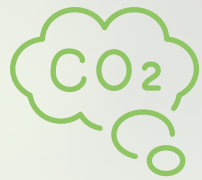
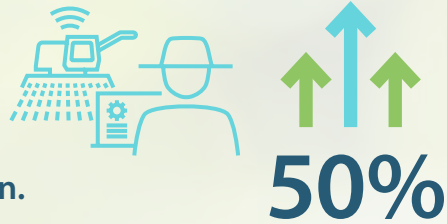


WORLD BANK GROUP
Agriculture & Food



FOOD SYSTEMS
2030

Feeding an estimated 10 billion people in 2050 will require a 50 percent increase in food production.



Emissions from the agri-food system account for 33 percent of global greenhouse gas emissions.

33%



Agriculture is the largest source of emissions of the potent greenhouse gases methane (from livestock and rice) and nitrous oxide (from nitrogen fertilizers).

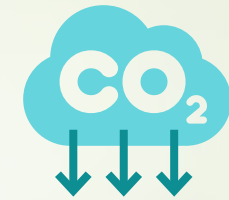
Agriculture accounts for 70 percent of global freshwater abstraction (the removal of water from its sources) every year.

70%



Nature-based solutions, such as agroforestry and soil carbon management, can make a major, cost-effective contribution to achieving the Paris Agreement.

The agriculture, forestry, and other land use sector offers significant short-term mitigation potential at relatively low cost, and can provide 20-30 percent of the targeted emission reductions for 2050.



20-30%
of reductions



The World Bank currently provides about

\$3 billion

a year for climate-smart agriculture.



The agri-food system is a major contributor to greenhouse gas emissions and highly vulnerable to climate change. In the context of rapid global population growth, **climate-smart agriculture** can help meet the growing demand for food, while decarbonizing the food system and making it more resilient to climate change.



Climate-smart, inclusive agriculture can boost farmers' income, restore and protect landscapes that people rely on for survival, enhance farm productivity, boost food production, improve the food system's resilience to climate shocks, and reduce greenhouse gas emissions. This approach puts rural livelihoods and poverty reduction at the center of efforts to reduce emissions, alongside **locally tailored solutions** to social, economic, and environmental challenges, from food security and nutrition to biodiversity and water conservation.

2nd largest carbon emitter

Agriculture is unique: not only is it the second-largest carbon emitter—it also has the potential to capture and store vast amounts of greenhouse gases that it generates, as well as emissions from other sectors. There is three times as much organic carbon found in soil than there is in the atmosphere.

The World Bank has made great strides in increasing lending for climate-smart agriculture since the Paris Agreement, pioneering technologies to demonstrate viability at scale, and increasing knowledge of climate-smart practices in client countries. However, a **massive gap** remains in reaching the estimated \$350 billion per year needed to finance the food system transition globally.



Our **partnerships** with client governments combine agriculture practices, technologies, innovations, and policy tools to help design and implement national policies and strategies that meet both global commitments and national development objectives.

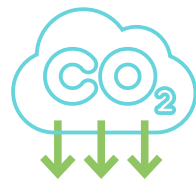
The World Bank is scaling up climate-smart, inclusive agriculture to achieve three outcomes:



Increase productivity: Produce more and better food to improve nutrition security and boost incomes, especially for the 75 percent of the world's poor who live in rural areas and mainly rely on agriculture for their livelihoods.



Enhance resilience: Reduce vulnerability to drought, pests, diseases, and other climate-related risks and shocks; and improve capacity to adapt and grow in the face of longer-term stresses, such as shortened seasons and erratic weather patterns.



Reduce emissions: Pursue lower emissions for each calorie or kilo of food produced, avoid deforestation from agriculture, and find ways to absorb carbon out of the atmosphere.

The World Bank has developed climate-smart agriculture investment plans for Bangladesh, Burkina Faso, Côte d'Ivoire, Ghana, Lesotho, Mali, Morocco, the Republic of Congo, Zambia, and Zimbabwe. These plans identify climate-smart agriculture investments totaling more than \$2.5 billion, with potential to benefit over 80 million people.

 benefit >80 million