Global Sustainable Development Report 2013: A Review of National Sustainable Development Assessments

By Robert Brinkmann, Sandra Garren, and Wei Liu June 2013, Draft for comments only.

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LIST OF ACRONYMS

AIDS Acquired Immunodeficiency Syndrome

BPOA Barbados Programme of Action

CIBC Canadian Imperial Bank of Commerce

CO₂ Carbon Dioxide

CSD Conference on Sustainable Development

EU European Union

FDI Foreign Direct Investment GDP Global Domestic Product

GHG Greenhouse Gas

HALE Health Adjusted Life Expectancy
HDI Human Development Index
HIV Human Immunodeficiency Virus

ICLEI International Council for Local Environmental Initiatives

ICT Information and Communication Technology

LDC Less Developed Countries
MDC More Developed Countries
MDG Millennium Development Goals
MSI Media Sustainability Index

MWh Megawatt Hour
NOx Nitrogen Oxides
PM Particulate Matter
RBC Royal Bank of Canada

REPI Resource and Environmental Performance Index

SD Sustainable Development

SO₂ Sulfur Dioxide
UK United Kingdom
UN United Nations

UNCED United Nations Conference on Environment and Development
UNCSD United Nations Conference on Sustainable Development
UNDESA United Nations Department of Economic and Social Affairs

UNDP United Nations Development Programme
UNECA United Nations Economic Commission for Africa
UNECE United Nations Economic Commission for Europe

UNECLAC United Nations Economic Commission for Latin America

UNESCAP United Nations Economic and Social Commission for Asia and the Pacific UNESCWA United Nations Economic and Social Commission for Western Asia

UNFCCC United Nations Framework Convention on Climate Change

UNGASS United Nations General Assembly Special Session

US United States

USEPA United States Environmental Protection Agency

WCED World Commission

WSSD World Summit on Sustainable Development

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Executive Summary

Sustainable development is high on the agenda in more and more countries in the world during this current era due to significant environment, social, and economic problems and opportunities. This report reviews a number of different types of national reports on sustainability in order to evaluate the current status of national sustainable development assessments and sustainability indicators. The report demonstrates that while there is some agreement on some assessment tools and indicators, they are not applied regularly. Therefore, comparative analysis is difficult to complete and it is hard to gain a full picture of progress on global sustainability.

In this work, the following types of documents were inventoried and reviewed for countries around the world including national sustainable development assessment reports with a focus on national reports prepared in preparation for the Rio+20 conference; national sustainable development strategies; sustainability indicator profiles; Millennium Development Goal (MDG) documents; and, other national sustainable development white papers. The report contains a number of tables that present the inventory, summarize the reviewed assessments, and compare the sustainable development approaches by country.

The study included the 193 United Nation Member states and the results are organized into 10 world regions. Of the 193 countries, 69 submitted reports for Rio+20 with the majority of reports submitted from developing countries, especially those in Africa and Latin America and the Caribbean regions. In addition, sustainability indicator profiles were inventoried and 10 selected countries were reviewed in more detail.

The results of this study indicate significant progress in many areas since 2000 with many countries embracing the concept of sustainable development and finding ways to measure their progress. Many of the developed countries have devoted considerable time and effort in data collection, assessment, and evaluation of sustainable development using well established indicators as well as indicators that have been developed for their own social, economic and geographic setting. However, not all developed countries are developing sustainability assessments or indicators and the work on sustainable development is more locally or regionally focused. While many of the developed countries are collecting data and reporting regularly, the indicators selected vary considerably.

Developing countries have also embraced sustainable development and many have created their own sustainable development indicator systems that utilize established indicators as well

as ones that they have designed for their own unique setting. However, due to lack of funding, government institutions, or capacity, many developing countries have not developed indicators or found ways to consistently collect data or conduct regular assessments. Thus it is difficult to conduct comparative national analysis due to the inconsistency of reporting and lack of data or indicators.

It is worth noting that there are many basic indicators that are common to most nations that utilize indicator systems. These include quantitative measures such as Gross Domestic Product (GDP), educational attainment, and many of the other indicators under the MDGs. However, some of these indicators are not full measures of sustainability. Thus, the nations that rely heavily on these standard measures are not fully accounting for the scope of sustainable development.

There is also considerable difference between the types of indicators utilized by developed countries and Least Developed Countries (LDCs). The variation can be seen in a number of indicators that were developed for assessing the environmental, social, and economic pillars of sustainability. Developed and developing countries have very different approaches to assessing and measuring sustainability due to different levels of development.

The research suggests that sustainability assessment and indicator development is still in development across the world and that more attention needs to be given to considering how to truly assess sustainable development in order to develop nationally appropriate tools for measuring progress. Furthermore, this study also shows that many countries do not have sufficient resources for sustained efforts for sustainability reporting or data collection. Often sustainability efforts are funded by external agencies making the reporting, data collection, or assessment inconsistent. Many countries do not have institutions in place to manage sustainability efforts or assessments. There is no doubt that sustainable development has been widely embraced. However, the world is still working out how to measure and assess it.

1. Introduction

1.1 Background

The goal of this chapter is to provide a summary of national sustainable development assessments that have been produced in the last 10 to 15 years with a focus on most recent assessments completed under the United Nations (UN) Conference on Sustainable Development (CSD) that took place in Rio de Janeiro June 20-22, 2012 (Rio+20). The United Nations Department of Economic and Social Affairs (UNDESA) and the United Nations Development Programme (UNDP) funded over 70 nations to create reports that addressed progress, challenges, and gaps in the creation of sustainable development. The chapter also inventories national sustainable development activities that include the development of sustainable development indicators, national reporting associated with UN milestones, and national sustainable development planning. A detailed review of some approaches to measuring and assessing sustainability is included.

One of the outcomes of Rio+20 was the recognition for the need for greater information about sustainability initiatives at the national and international level. Countries and regions were asked to develop assessment documents that address sustainability and development goals. While the produced reports were highly variable, they indicated that there is some agreement on key priorities. According to the report, Synthesis of National Reports for Rio+20, there were five key priorities that were identified from the report for advancing sustainable development. They are:

- <u>Key Priority 1</u>. Strengthening institutions and governance systems and building collaboration and coordination at all levels for integrated planning and implementation within and across sectors and levels of government as well as among government, civil society, and private sector actors.
- Key Priority 2. Unpacking and operationalizing the "Green Economy."
- <u>Key Priority 3</u>. Reinforcing the connection between the sustainable development agenda and the millennium development goals.
- <u>Key Priority 4</u>. Meaningfully engaging stakeholders, including governments, civil society, and the private sector.
- <u>Key Priority 5</u>. Measuring development progress in a way that looks across the three pillars of sustainable development.

This chapter takes a different approach to assessing these and other efforts to date with a strong focus on:

- scientific or thematic topic(s) addressed by the assessment
- assessment tools and indicators
- geographical scope of the assessment
- time period covered by the assessment
- total number of editions completed
- methodology employed to prepare this assessment
- funding arrangements
- peer review arrangements
- general topics addressed within the themes of sustainable development
- innovative or noteworthy approaches

Close examination of the sustainable development reports will allow greater assessment of the content and quality of approaches used within each country. It must be noted that there is some variation in approach by countries on their efforts. The vast majority of the Rio+20 reports submitted were funded by the United Nations (UN). Few developed countries have submitted reports to the UN and are following their own approaches and methodologies. Most of the reports that were reviewed come from the developing countries. As noted in the report of the Rio+20 Conference on Sustainable Development, there is unevenness in methodological approaches and outcome. UN Member states agreed to "Promote the balanced integration of the three dimensions of sustainable development" at the Rio+20 along with focusing on a "results-oriented" approach. As will be demonstrated, many countries and regions have made significant strides toward this effort since June of 2012. In addition, many countries have produced thematic reports on particular themes separate from the Rio+20 process. Some of the report themes include water, greenhouse gas, and social equity. This chapter includes an inventory and analysis of 69 sustainable development assessments to date, including those reports prepared specifically for Rio+20.

Analysis of national sustainable development assessment reports and other national and regional sustainability reports is a useful exercise that could assist with discussions at a high level political forum that is expected to be held this year to examine progress and future directions for sustainable development.

This chapter is divided into three broad sections. The first section reviews the major milestones of the Inter-governmental processes that led to the writing of this report. Section 2 presents an inventory and summary of the various assessments and sustainability indicators compiled nationally. It also presents an analysis of regional and national trends, methodological approaches, scientific themes, and significant gaps. Lastly, Section 3 concludes the chapter with policy implications. What will be seen is that there is a range of approaches and some significant gaps in information.

1.2 Major Milestones of Inter-governmental Process

<u>United Nations Conference on the Human Environment.</u> The United Nations has long focused on improving the environment. Since the adoption of the UN Charter in 1945, the organization has been heavily focused on peace, human rights, and international cooperation. However, in 1972, the UN organized a Conference on the Human Environment in Stockholm Sweden that resulted in the development of the UN Environmental Programme (**Figure 1.1**). At the time, widespread industrialization, the early phases of modern globalization, and destruction of ecosystems was of paramount international concern. This period saw the celebration of the first Earth Day in 1970 and the growth of environmental rule making at the local and national levels in response to the public's concern over a variety of environmental issues.

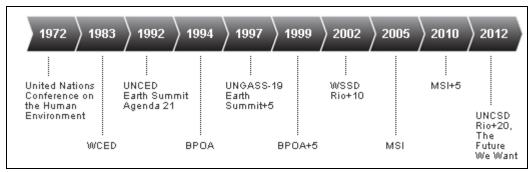


Figure 1.1. Significant benchmarks in the environmental and sustainable development efforts by the United Nations

This 1972 conference was significant because it was the first international meeting of countries that addressed the impacts of global environmental degradation and its causes. It also provided a framework for addressing these issues and suggested policies, educational approaches, and national strategies. Since 1972, the Environmental Programme has worked on a variety of issues identified in the Stockholm report.

<u>World Commission on Environment and Development (WCED).</u> In 1983, the UN established a Commission on Environment and Development, often called the Brundtland Commission to look more deeply at environmental problems and their causes. Gro Harlem Brundtland, the former Prime Minister of Norway was the Chair of the Commission. The goals of the committee were (UN, 1987):

- to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond;
- to recommend ways concern for the environment may be translated into greater cooperation among developing countries and between countries at different stages of economic and social development and lead to the achievement of common and

- mutually supportive objectives that take account of the interrelationships between people, resources, environment, and development;
- to consider ways and means by which the international community can deal more effectively with environment concerns; and
- to help define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long term agenda for action during the coming decades, and aspirational goals for the global community.

They produced a document called the Report of the World Commission on Environment and Development: Our Common Future (sometimes called the Brundtland Report). The report was important because it departed from more traditional ways of looking at environmental issues by suggesting that poverty, growth, survival, and economic difficulties are linked and can by symptoms and causes of environmental stress. In addition, the report links the complex interactions of environment, economic development, and social equity within the concept of sustainable development. The report defined sustainable development as development that meets the needs of the present without hindering future generations. Sustainability is framed within the three pillars of environment, economics, and equity (or the three e's) that provide a conceptual framework for understanding environmental problems and solutions.

The report highlighted that there were several common challenges including population and human resources, food security, species and ecosystems, energy, industry, and urban challenges. Also, there are shared concerns including oceans, space, Antarctica, and overall peace and security.

The report did not provide specific recommendations for addressing the concerns identified by the commission. However, it did suggest that a plan of action needed to be developed. Such a plan was created in 1992 at The United Nations Conference on Environment and Development (UNCED).

The United Nations Conference on Environment and Development (UNCED). This 1992 event resulted in many important outcomes, most notably the Rio Declaration on Environment and Development, Agenda 21, the Framework Convention on Climate Change, and the Convention on Biological Diversity, and the Convention on Combat Desertification. Rio Declaration consisted of 27 principles that were meant to assist with framing sustainable development. The document links the significance of environmental protection to human rights. Agenda 21 provided the plan of Action that provided guidance to make sustainable development possible. What is unique about Agenda 21 is that it looked at sustainable development within distinct scales: global, national, and local.

<u>Barbados Programme of Action (BPOA)</u>. The BPOA was an outcome of the Global Conference on the Sustainable Development of Small Island States that took place 1994. The UN recognized that small island states have unique problems associated with sustainability: they

are exposed to unique hazards such as earthquakes, tsunamis, and global climate change; they have limited resources such as fresh water; and they often have trade or economic challenges. The BPA was needed to address the issues of small island states not fully covered in Agenda 21. This was followed by the <u>Mauritius Strategy of Implementation</u> in 2005 that updated the actions and strategies in line with emerging targets such as the Millennium Development Goals (see below).

<u>UN General Assembly Special Session 19 (UNGASS)</u>. This General Assembly met in 1997 to review the progress of Agenda 21. The report of the session notes that there were a number of problems associated with the implementation and overall success of the plan. The expanding impacts of globalization were noted as a particularly vexing challenge. However, other issues such as unequal income, continued environmental problems, and global climate change were highlighted.

<u>Millennium Development Goals (MDG).</u> In 2000, the UN hosted a Millennium Summit to discuss the role of the UN in the coming century. As part of the Summit, a series of UN Millennium Development Goals were established with specific targets. The goals include:

- 1. Eradicating extreme poverty and hunger
- 2. Achieving universal primary education
- 3. Promoting gender equality and empowering women
- 4. Reducing child mortality rates
- 5. Improving maternal health
- 6. Combating HIV/AIDS, malaria, and other diseases
- 7. Ensuring environmental sustainability
- 8. Developing a global partnership for development

The MDG's are regularly evaluated and report cards by countries and region have been created. As of 2008, 57 indicators have been developed for monitoring progress toward the eight MDGs. There have been significant improvements in some of the goals in many parts of the world, although improvements have been lacking in some areas.

<u>World Summit on Sustainable Development (WSSD).</u> In 2002, the UN organized a World Summit on Sustainable Development in Johannesburg, South Africa. There were several outcomes including the Johannesburg Declaration on Sustainable Development, including national assessment reporting by countries. This document built upon previous ones (such as the Brundtland Report and Agenda 21) by updating the concerns, particularly emerging issues associated with expanded globalization, income disparity, and multilateral cooperation.

<u>UN Conference on Sustainable Development (CSD).</u> A conference was held twenty years after the original Earth Summit again in Rio de Janeiro in 2012, also called Rio+20. The outcome report, called *The Future We Want*, details a number of key initiatives. One of the results of the effort was a call for strengthening participation of all countries in international sustainable

development processes and capacity-building especially for developing countries, including in conducting their own monitoring and assessments. This report in part, reviews the progress of this initiative from a distinct perspective. The UN has already published a document called *Synthesis of the National Reports for Rio+20* that provided a broad content synthesis of the reports. This chapter is different in that it provides a detailed review by country of the scientific or thematic issues addressed by the assessment with the focus on geographical scope of the assessment and tools and indicators used.

Another result of Rio+20 was a decision from member states to set up an intergovernmental process to develop Sustainable Development Goals (SDG) along with targets and indicators. It was agreed that the SDGs should not divert focus from the Millennium Development Goals (MDGs) and should incorporate concepts from MDGs, Agenda 21 and Rio principles. This chapter contains an inventory of countries that have been submitting national progress reports both in the MDG programme and through the CSD programme (i.e., national reports, national strategy profiles, and sustainability indicator profiles). The inventory is useful in assessing the current state of sustainability reporting in specific countries and will be useful in the development of SDGs, targets, and indicators beyond 2015.

Leading up to the Rio+20 conference, the CSD held annual sessions (CSD1 through CSD19) where nations have participated in policy programmes of the CSD. Following the 2003 session, two-year implementation cycles were developed for sessions. The first implementation cycle was 2004 and 2005 and contained sessions CSD12/CSD13. The second cycle covered 2006 and 2007 (CSD14/CSD15), the third cycle covered 2008 and 2009 (CSD16/CSD17), and the fourth cycle covered 2010/2011 (CSD18/CSD19). Among other activities, countries prepared national reports centered around topics and other sustainable development documents (e.g., national sustainability indicator profiles and strategic planning documents) which are available on the CSD website. Available CSD documents were also inventoried in this chapter. Note that Rio+20 documents are identified separately from documents obtained from CSD12 through CSD19 activities.

In addition, the CSD has been engaged in developing sustainable development indicators since the first UNCED in 1992 with three sets of indicators developed in 1994, 2001, and 2007, as described in http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf. The current 134 indicators center on UN topics and themes, including poverty, governance, health, education, demographics, natural hazards, atmosphere, land, oceans/seas/coasts, freshwater, biodiversity, economic development, global economic partnership, and consumption and production. These indicators have been available for countries to use in national reporting.

2. Inventory and Summary of National Sustainable Development Documents and Sustainability Indicators

This section presents a review of sustainability approaches used by countries using two broad sources of information. First, sustainable development documents produced by countries

over the last 10 to 15 years were inventoried. Second, national sustainable development assessment reports were reviewed with a focus on reports prepared for Rio+20 documents. Many of these reports are broad policy reviews, but many contain assessments of progress using key indicators.

A summary of the inventory and national assessment documents are presented in Sections 2.1 and 2.2, respectively, with detailed summary tables presented in **Annexes A and B**, respectively. Section 2.3 presents an analysis of sustainability indicators. In the following sections, individual examples were selected to highlight particular. As will be demonstrated, there is very little agreement as to how to measure or assess sustainability development.

2.1 Inventory of National Sustainable Development Documents

National sustainable development documents were researched from United Nation websites and from other general resources, which included the following sources.

- **Rio+20**. UN Rio+20 national assessment reports were available for 69 nations (Note that there were 71 links, but two reports (i.e., Dominican Republic and Guatemala) were not available.) http://sustainabledevelopment.un.org/rio20nationalreports.html
- Global Sustainable Development Assessment Report 2013. Sustainable development
 national reports are available for China, Turkey, Vietnam, India, Thailand, and South
 Africa along with a number of other documents related to sustainability.
 http://sustainabledevelopment.un.org/index.php?menu=1621
- Commission for Sustainable Development (CSD). The UN sustainable development
 website has links for the 193 UN member nations that include national reports, inputs,
 national sustainable development strategies profiles, national sustainability indicator
 profiles, statements, and voluntary initiatives.
 http://sustainabledevelopment.un.org/memberstates.html
- **Small Island Developing States (SIDS).** A website was identified that contains documents for SIDS nations. http://www.sidsnet.org/resources
- World Summit on Sustainable Development (WSSD). National assessment reports
 were prepared by numerous nations in 2002. While the link from the United Nations
 link below was no longer functioning, a listing of national reports was obtained and a
 few documents were found from different sources.
 http://www.johannesburgsummit.org/html/prep_process/natlassessrep.html
- Millennium Development Goal (MDG) Reports. MDG national progress reports were
- documented for the 193 UN-member states participating in the program.

 http://www.undp.org/content/undp/en/home/librarypage/mdg/mdg-reports/
- Global Network of National Councils for Sustainable Development. This network has links to 53 national sustainable development offices. The name of the council and pertinent documents obtained were documented in the inventory. http://www.ncsds.org/index.php/sustainable-development-councils/country-profiles.

 National government websites. Selected nations were researched to identify reports since not all nations have updated information or they do not participate in the above programs. Note that a complete search for all nations was not performed at this time.

An alphabetical list of the 193 nations with available sustainable development documents is presented in **Annex A** and **Table 2.1** summarizes the total number of sustainable documents identified for this inventory of national sustainable development documents (**Table 2.1**). From the table, about half the developed countries have provided sustainable development documents with the exception of Rio+20 documents with only four documents posted. In general, the remaining regions tend to submit MDG progress reports, but not CSD documents. By far, Africa and Latin America and the Caribbean posted more documents for Rio+20.

Table 2.1. Summary of national sustainable development documents, by region

Number of Countries with Documents Posted to the UN (Percent of Total UN Member Countries)						
Regions	CSD Indicator Profiles ¹	CSD National Strategy Profiles ¹	CSD National Reports ¹	MDG Progress Reports ²	Rio+20 National Assessment Reports ³	Total Number Countries
Developed	25 (50.0%)	28 (56.0%)	29 (58.0%)	21 (42.0%)	4 (8.0%)	50
Northern Africa	1 (20.0%)	1 (20.0%)	1 (20.0%)	5 (100%)	2 (40.0%)	5
Sub-Saharan Africa	7 (14.9%)	6 (12.8%)	8 (17.0%)	43 (91.5%)	34 (72.3%)	47
South-Eastern Asia	1 (9.1%)	1 (9.1%)	1 (9.1%)	9 (81.8%)	4 (36.4%)	11
Eastern Asia	2 (50.0%)	2 (50.0%)	3 (75.0%)	4 (100%)	0 (0%)	4
Southern Asia	0 (0%)	0 (0%)	1 (12.5%)	8 (100%)	4 (50.0%)	8
Western Asia	1 (7.7%)	2 (15.4%)	2 (15.4%)	10 (76.9%)	3 (23.1%)	13
Caucasus and Central Asia	0 (0%)	0 (0%)	1 (12.5%)	8 (100%)	3 (37.5%)	8
Oceania	2 (15.4%)	2 (15.4%)	2 (15.4%)	11 (84.6%)	1 (7.7%)	13
Latin America and the Caribbean	4 (11.8%)	5 (14.7%)	8 (23.5%)	29 (85.3%)	14 (41.2%)	34
Totals	43 (22.3%)	47 (24.4%)	56 (29.0%)	148 (76.7%)	69 (35.8%)	193

^{1.} This accounting only includes reports posted on United Nations websites for CSD12 through CSD19

^{2.} This accounting includes UN member nations. There are additional nations that participate in MDG reporting that are not UN members and not included in this table.

^{3.} Note that this accounting includes only national assessment reports completed for Rio+20

Of the 193 UN-member countries inventoried, 69 nations were identified to have published national sustainable development reports as part of Rio+20 (**Figure 2.1**). As the figure shows, the majority of the Rio+20 documents are located in the developing countries, especially in Africa and Latin America and the Caribbean.

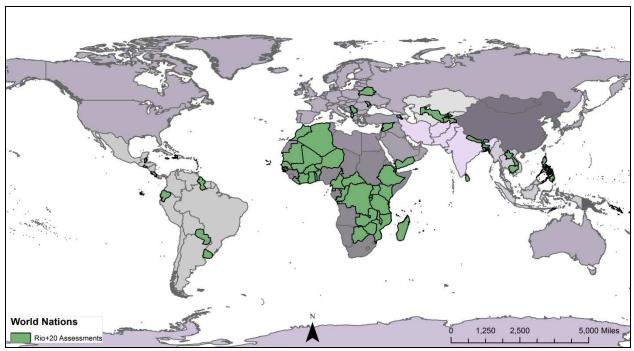


Figure 2.1. Nations with Rio+20 National Sustainable Development Assessments Reports

Through Agenda 21, CSD implementation cycles, and Rio+20, the United Nations has developed 43 topics and themes (Table 2.2) for consideration by UN member nations. Table 2.3 provides a listing of countries and thematic topics for national reports submitted to the CSD for implementation cycles 2004 through 2011 (CSD12 through CSD19). In total, 405 thematic topic national reports were submitted. The top three topics submitted include chemicals and waste; desertification, land degradation, and drought; and sustainable consumption and production. Topics in the mid-range were mining, rural development, sustainable transport, water and sanitation, sustainable cities and human settlements; and atmosphere. Climate change and forests had the fewest reports by countries. This accounting provides a general assessment of topics that countries have selected as topics to focus on developing sustainable development strategies and indicators.

Table 2.2. List of UN Topics, Cross-Sectoral Issues, and Themes

- Africa
- Atmosphere
- Biodiversity and ecosystems
- Biotechnology
- Capacity-building
- Chemicals and waste
- Climate change
- Demographics
- Desertification, land degradation and drought
- Disaster risk reduction
- Education
- Employment, decent work for all and social protection
- Energy
- Finance
- Food security and nutrition and sustainable agriculture

- Forests
- Gender equality and women's empowerment
- Green economy in the context of sustainable development and poverty eradication
- Health and population
- Indicators
- Industry
- Information for decision-making and participation
- Institutional arrangements
- Institutional framework for sustainable development
- Integrated decision-making
- International cooperation for an enabling environment
- International legal instruments and mechanisms

- Mining
- Mountains
- National sustainable development strategies
- Oceans and seas
- Poverty eradication
- Rural development
- Science
- Small Island Developing States
- Sustainable cities and human settlements
- Sustainable consumption and production
- Sustainable tourism
- Sustainable transport
- Technical cooperation
- Technology
- Trade
 - Water and Sanitation

Source: United Nations Sustainable Development Platform http://sustainabledevelopment.un.org/topics.html

Table 2.3. Inventory of thematic topics identified from CSD Implementation Cycles

	inventory or d	National Reports Submitted by Thematic Topic and CSD Implementation Cycle (Note that number corresponds to CSD cycle: 18/19=2010/2011, 16/17=2008/2009, 14/15=2006/2007, and 12/13=2004/2005)														
Region	Name	Africa	Atmosphere	Chemicals and Waste	Climate Change	Energy	Desertification, land degradation and drought	Food security and nutrition and sustainable agriculture	Forests	Industry	Mining	Rural Development	Sustainable cities and human settlements	pu	Sustainable transport	Water and Sanitation
Caucasus and Central Asia	Kazakhstan										18/19					
Developed	Austria			18/19			16/17	16/17			18/19	16/17	12/13		18/19	12/13
	Belgium	16/17	14/15	18/19			16/17	16/17	18/19			16/17	12/13	18/19	18/19	12/13
	Bulgaria		14/15	18/19		14/15	16/17	16/17		14/15	18/19	16/17	12/13	18/19	18/19	12/13
	Canada	16/17		18/19			16/17	16/17			18/19			18/19	18/19	
	Croatia			18/19			16/17	16/17				16/17		18/19		
	Czech Republic	16/17	14/15	18/19		14/15	16/17	16/17		14/15	18/19	16/17	12/13	18/19	18/19	12/13
	Denmark	16/17	14/15		16/17	14/15	16/17	16/17				16/17				12/13
	Estonia	16/17		18/19	14/15	14/15		16/17			18/19	16/17		18/19	18/19	12/13
	Finland	16/17	14/15	18/19	14/15	14/15					18/19	16/17	12/13	18/19	18/19	12/13
	France	16/17		18/19			16/17	16/17			18/19			18/19	18/19	
	Germany	16/17	14/15	18/19	14/15	14/15	16/17	16/17		14/15	18/19	16/17	12/13	18/19	18/19	12/13
	Greece	16/17	14/15	18/19		14/15	16/17	16/17		14/15	18/19		12/13	18/19	18/19	12/13
	Hungary		14/15	18/19		14/15	16/17	16/17			18/19	16/17	12/13	18/19	18/19	12/13
	Iceland		14/15	18/19		14/15	16/17			14/15				18/19		
	Israel		14/15	18/19		14/15	16/17	16/17		14/15	18/19	16/17		18/19	18/19	
	Japan		14/15	18/19		14/15				14/15			12/13	18/19	18/19	12/13
	Lithuania		14/15			14/15	16/17	16/17		14/15		16/17	12/13			12/13
	Moldova, Republic Of			18/19												
	Netherlands	16/17	14/15			14/15	16/17	16/17		14/15		16/17				
	Norway	16/17			14/15	14/15	16/17	16/17		14/15		16/17		12/13		12/13
	Poland	16/17		18/19			16/17	16/17			18/19	16/17		18/19	18/19	
	Romania			18/19							18/19		12/13	18/19	18/19	12/13
	Serbia					14/15	16/17	16/17				16/17	12/13			12/13
	Slovakia		14/15			14/15				14/15			12/13			12/13
	Spain	16/17	14/15		18/19	14/15	16/17	16/17		14/15	18/19	16/17	12/13	18/19	18/19	
	Sweden		14/15	18/19		14/15	16/17	16/17			18/19	16/17	12/13	18/19	18/19	12/13
	Switzerland	16/17	14/15	18/19		14/15	16/17	16/17		14/15		16/17		18/19	18/19	
	United Kingdom		14/15	18/19		14/15				14/15			12/13	18/19	18/19	12/13
	United States	16/17		18/19		14/15	16/17	16/17			18/19	16/17		18/19	18/19	

		National Reports Submitted by Thematic Topic and CSD Implementation Cycle (Note that number corresponds to CSD cycle: 18/19=2010/2011, 16/17=2008/2009, 14/15=2006/2007, and 12/13=2004/2005)														
Region	Name	Africa	Atmosphere	Chemicals and Waste	Climate Change	Energy	Desertification, land degradation and drought	Food security and nutrition and sustainable agriculture	Forests	Industry	Mining	Rural Development	Sustainable cities and human settlements	Sustainable consumption and Production	Sustainable transport	Water and Sanitation
Eastern Asia	China						16/17	16/17				16/17	12/13			12/13
	Korea, Republic Of	16/17	14/15	18/19		14/15	16/17	16/17		14/15	18/19	16/17	12/13	18/19	18/19	12/13, 14/15
	Mongolia			18/19							18			18/19	18/19	
Latin	Chile			18/19							18/19					
American	Argentina			18/19					16/17		18/19			18/19	18/19	
and the	Barbados			18/19			16/17	16/17			18/19	16/17	12/13	18/19	18/19	12/13
Caribbean	Colombia			18/19			16/17				18/19				18/19	
	Costa Rica			18/19										18/19	18/19	
	El Salvador						16/17					16/17				
	Guatemala			18/19							18/19			18/19	18/19	
	Mexico	16/17		18/19			16/17	16/17			18/19	16/17			18/19	
Northern Africa	Morocco	16/17					16/17	16/17				16/17				
Oceania	Fiji		14/15	18/19		14/15	16/17	16/17			18/19	16/17		18/19	18/19	
	Nauru						16/17	16/17				16/17				
South- Eastern Asia	Cambodia		14/15	18/19		14/15	18/19						16/17			
Southern Asia	Iran						16/17	16/17				16/17	12/13			12/13, 16/17
Sub-Saharan	Ghana			18/19			16/17				18/19		12/13	18/19		12/13
Africa	Mali			18/19			16/17	16/17			18/19	16/17		18/19	18/19	
	Mauritius			18/19		14/15				14/15	18/19		12/13	18/19		12/13
	Mozambique			18/19							18/19			18/19	18/19	
	Senegal	16/17	12/13	18/19	12/13	12/13	16/17	16/17		12/13	18/19	16/17		18/19	18/19	
	South Africa	16/17	14/15	18/19		14/15	16/17			14/15	18/19	16/17	12/13	18/19	18/19	12/13, 16/17
	Togo			18/19							18/19			18/19	18/19	
	Zambia						16/17	16/17				16/17				
Western Asia	Jordan					14/15	16/17	16/17		14/15		16/17				
	Turkey		14/15	18/19		14/15					18/19	_	12/13	18/19		12/13
Total Natio	nal Reports by Topic	20	24	41	7	29	39	34	2	19	34	34	25	37	34	26

2.2 Summary of National Sustainable Development Assessment Reports

A summary of 69 national sustainable development assessment reports generated for the Rio+20 is presented in **Annex B**. A number of additional sustainable development reports were identified during the inventory and are catalogued in **Annex A**. This section provides a summary of assessment documents and a summary of Rio+20 assessment reports. The summary in this section is organized into 10 world regional groupings used for Millennium Development Goal reporting program which is shown on **Figure 2.2**.

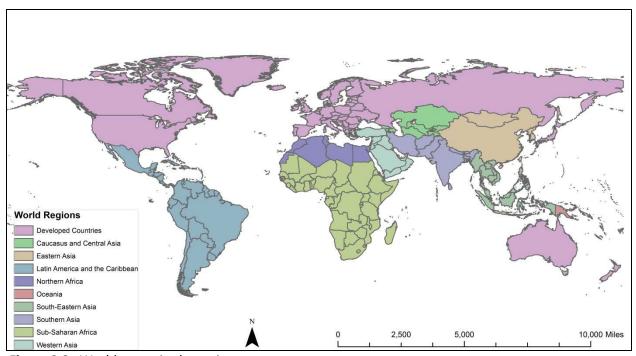


Figure 2.2. World countries by region

2.2.1 Developed Countries

A total of 50 countries have been identified as developed countries. Eight of the countries are spread throughout the world and the remaining countries are located in Europe (see **Figure 2.2** above). All 28 European Union (EU) countries are listed as developed and the 14 remaining are non-EU countries located in Europe.

Non-European countries. The eight non-European countries include Australia, Bermuda, Canada, Israel, Japan, New Zealand, Russian Federation, and the United States. To date, none of these countries have posted a Rio+20 assessment report. However, progress on sustainable development has been underway in most of these non-European countries, including Australia, Canada, and the Russian Federation. A summary of sustainable development documents available for these nations is included in the inventory table presented as **Annex A**.

<u>European Union Nations</u>. There are 28 European-Union countries (Croatia will be member in July 2013 and is included in this accounting) (**Figure 2.3**). To date, none of these countries have

posted a sustainable development assessment report in preparation for Rio+20. However, these nations as a whole under the European Union and as individual countries has made progress on sustainable development. Countries such as Austria, Belgium, France, Germany, Italy, and the United Kingdom have government departments specific to sustainable development which have lead the way in addressing sustainable development issues (see **Annex A** for in inventory of sustainable development activity).

Non-EU aligned European Nations. The 14 non-EU European countries are included in the developed country groupings (Figure 2.3). Of these, only four (4) of these countries have submitted sustainable development assessment reports were produced for Rio+20 from non-EU aligned developed countries. They are: Albania, Belarus, Moldova, and Serbia. Each report was produced from desk analysis of national documents and policies along with input from stakeholders. The reports from Albania and Serbia, while different, each provided reviews of current progress toward developing sustainability and green economy initiatives that can be benchmarked against international standards.

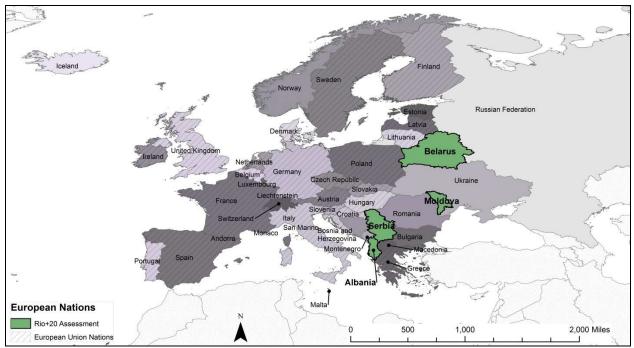


Figure 2.3. European Union and other European Nations with Rio+20 National Sustainable Development Assessment Reports (in green)

The reports for Belarus and Moldova have similar types of information, but differ in that they have defined their needs very differently. Belarus provides a different definition of sustainability as traditionally viewed as supported by the three pillars of environment, equity, and economy. They add a fourth pillar: spirituality. This is a unique approach and one that we have not seen in any other definitions. Spirituality, if it is included, is often addressed within the social aspects of sustainability in most sustainability assessments.

The sustainability issues in Moldova are very different from those in other parts of Europe. Moldova is among the poorest countries in terms of GDP in the continent and therefore has significant problems in its economic and social setting that are clearly identified and discussed in the report.

2.2.2 Northern Africa

Five UN-member states have been identified in the northern Africa region. Two submitted reports for Rio+20 were reviewed for North Africa: Algeria and Morocco. The results are summarized on **Annex B** and **Figure 2.4** shows the location of Northern countries. In summary, the two northern African countries each had very different approaches toward the construction of the report and the overall evaluation of sustainability within their borders. Morocco completed an extensive review of a variety of approaches toward sustainability that included a large number of indicators that included MDG and Agenda 21 themes. They also included a number of indicators pertinent to their unique geographic setting and culture. In contrast, Algeria's report focused on key initiatives that have been undertaken in the country to address sustainable development within the three pillars. However, they did not utilize many indicators to benchmark or evaluate their progress.

Algeria did however express concerns over the role of least developed countries (LDCs) in the overall approach to sustainable development and the growth of the green economy. They noted a need to take into consideration the special role of the LDC's in the world and the need to eradicate poverty and manage inequalities. Their report also focused considerably on the outcome of a national conversation on sustainable development and the green economy where concerns were expressed over the role of wealthy countries in the promotion of green growth.

The two reports provide an interesting contrast by which to view the sustainable development and green economy movement: one has moved considerably to measure and assess sustainable development and the green economy. The other reviewed some accomplishments, but raised concerns over the intent of sustainable development and the move toward a green economy.

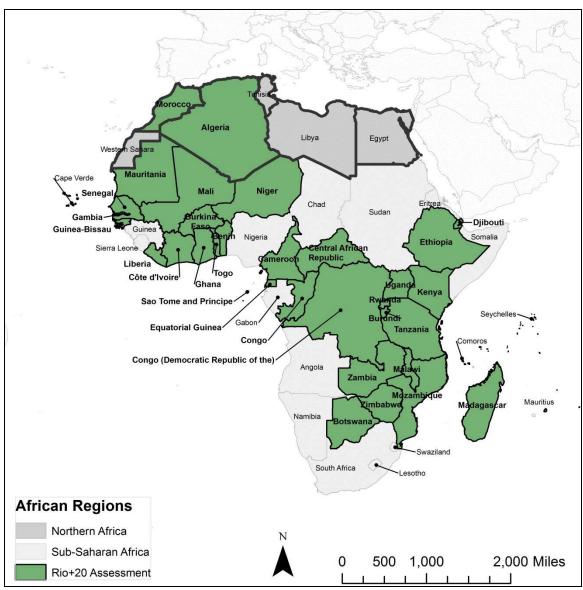


Figure 2.4. Northern and Sub-Saharan African nations with Rio+20 National Sustainable Development Assessment Reports (in green)

2.2.3 Sub-Saharan Africa

Forty-seven (47) UN-member countries have been identified in the sub-Saharan region. The submitted reports for Rio+20 from 34 Sub-Saharan African countries (Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central Africa Republic, Comoros, Democratic Republic of the Congo, Republic of the Congo, Cote D'Ivoire, Djibouti, Equatorial Guinea, Ethiopia, Gambia, Ghana, Guinea-Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Niger, Nigeria, Rwanda, Senegal, Seychelles, Tanzania, Togo, Uganda, Zambia, and Zimbabwe) were reviewed. The results are listed on **Annex B**, and **Figure 2.4**

shows the location of Sub-Saharan countries and the 35 countries that have completed an assessment.

This body of reports provides one of the most detailed examinations of any of the major world regions. What is fascinating about the reports is the variety of ways that nations have elected to measure sustainable development. While most of them utilize some aspects of the MDGs and Agenda 21, many nations (Rwanda for example) have developed their own indicators that are suitable for their own needs. Some nations (Kenya and Liberia for example) have extensive long-term plans that encompass some aspects of sustainable development.

There is also a degree of tension between the notion of sustainable development and overall development of the economy and national infrastructure. Many of the nations have significant poverty and rank low on the MDG's. Thus, the main focus of many of the nations is on strategies to improve national infrastructure and health, and the reduction of poverty.

Some of the nations have very unique problems and concerns. For example, Mali has a variety of vulnerable environments and is very focused on the impacts of climate change. While it produces small amounts of greenhouse gases, it is impacted by overall global climate change due to its transitional environmental setting. Some of the island countries are also concerned about climate change, but also highlight broader economic and resources issues associated with the SIDS. In addition, some suggest that there needs to be different types of sustainability indicators for SIDS separate from the MDGs.

There are also divergent opinions about the role of the green economy in sustainable development. Many nations have embraced the concept for years and have been involved with green growth activities prior to the development of the term. However, some countries find the term new and not widely accepted within their stakeholder population. There are also concerns over how to measure green economy activities and how to assess its impact within broader economic goals.

All of the countries noted the variety of international and regional agreements that are in place that address sustainable development. Some countries have created national offices that specifically focus on advancing sustainable development. However, many countries note a lack of organizational capacity, knowledgeable personnel, and funding to implement the agreements. There is also broad concern over the funding of the initiatives.

2.2.4 Caucasus and Central Asia

Eight UN-member states are included in the Caucasus and Central Asia Region (**Figure 2.5**). Three of these countries submitted Rio+20 reports: Armenia, Tajikistan, and Uzbekistan. These are summarized in **Annex B**. Each report highlighted individual efforts toward sustainability and approaches toward measuring sustainable development. However, Tajikistan reported on their unique approach toward advancing the green economy through the development of renewable energy resources, particularly hydroelectric.

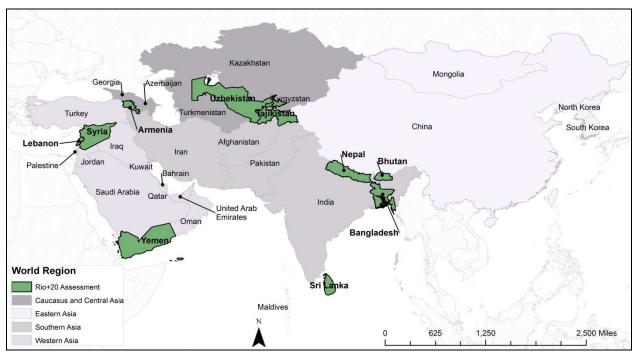


Figure 2.5. Caucasus and Central Asian, Southern Asian, Western Asian, and Eastern Asian nations with Rio+20 National Sustainable Development Reports (in green)

2.2.5 Eastern Asia

Four UN-member states are included in the Eastern Asian Region (**Figure 2.5**). None of these countries submitted reports for Rio+20; however, China, Republic of Korea, Mongolia, and Vietnam have made progress related to sustainable development (see **Annex A** for an inventory of documents from each country). It must be noted that China produces a sustainability report every year since 1999 that includes an assessment of indicators and overall sustainable development. This report will be discussed in the next section.

2.2.6 Western Asia

Thirteen countries are included in the Western Asia Region (**Figure 2.5**). Three of these countries submitted reports for Rio+20: Lebanon, Syria, and Yemen and are summarized in **Annex B**. Lebanon and Syria highlighted unique problems (such as water and land use) to sustainable development in their region.

2.2.7 Southern Asia

Eight UN-member states are included in the southern Asian region (**Figure 2.5**). We reviewed the submitted reports for Rio+20 produced by four South Asian Countries (Bangladesh, Bhutan, Nepal, and Sri Lanka). India did not submit a report for Rio+20, but has instituted a variety of national initiatives and laws independently, and India also regularly measure progress (see **Annex A** for an inventory of documents). India will be discussed in the next section as a case study.

Each Rio+20 report detailed extensive internal activities and international agreements associated with sustainable development in their country. Sri Lanka established a national council for sustainable development which produced a national action plan. The plan has a green reporting system for industries. Bangladesh also has a national plan for sustainable development called Vision 2021. Bhutan and Nepal also have a number of policies in place for sustainable development. Interestingly, Bhutan has developed a unique sustainability index called the Happiness Index that they believe is a better indicator of sustainability or development than the MDGs.

2.2.8 South-Eastern Asia

South-Eastern Asia has 11 UN-member states, of which four produced reports for Rio+20 (**Figure 2.6**). These are Cambodia, Lao People's Democratic Republic, the Philippines, and Timor-Leste. Thailand and Vietnam has also addressed sustainable development, but did not submit Rio+20 reports (see Appendix A for a summary of documents for other South-Eastern Asian countries.

Each Rio+20 assessment report, except for the one produced by the Philippines, involved document and information review and stakeholder work in the development of a final report. Each country has a distinct unique trajectory toward managing sustainable development. Cambodia largely focuses on national indicators and the Cambodia Millennium Development Goals (slightly modified from the MDGs). They are also working with the Global Green Growth Institute to manage some sustainability planning and green economic development. The Lao People's Democratic Republic developed a series of internal goals in all aspects of sustainability. In 1996, the Philippines developed Philippines Agenda 21, a program that focused on bringing sustainability to the archipelago nation. Their report for Rio+20 focuses heavily on evaluating the outcome of this plan.

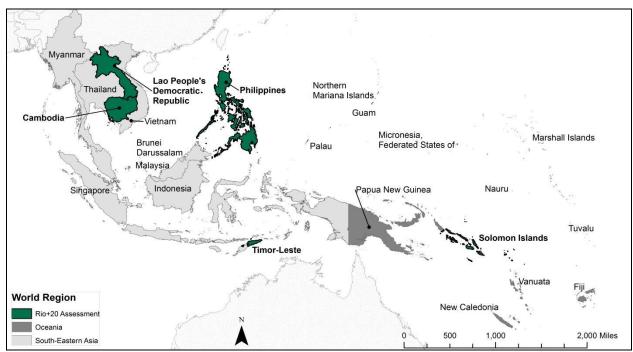


Figure 2.6. South-Eastern Asian and Oceania nations with Rio+20 National Sustainable Development Assessment Reports (in green)

Timor-Leste, as a new nation, brought sustainable development tenets within the process of nation building. They used the MDG's as well as other international agreements as a basis for evaluating their overall efforts for sustainability. Finally, Vietnam has a range of planning activities associated with sustainable development. They have a national council for sustainable development that integrated with the local level. It also has a business council for sustainable development. Varieties of plans have been developed local benchmarking strategies.

2.2.9 Oceania

Thirteen UN-member states are identified in the Oceania region most of which are Small Island Developing States (SIDS) (**Figure 2.6**). Only the Solomon Island submitted a Rio+20 assessment report which is summarized in **Annex B**. Additional information and documents are catalogued on the SIDS network at http://www.sidsnet.org/resources.

2.2.10 Latin America and the Caribbean

A total of 34 UN-member states have been identified as Latin American and the Caribbean with 21 countries located in central and South America, and 13 located in the Caribbean (Figures 2.7

and 2.8, respectively). The reports for seven Caribbean countries (Antigua and Barbados, Dominica, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, and Saint Lucia) and eight Latin American Countries (Belize, Costa Rica, Ecuador, El Salvador, Guyana, Paraguay, and Uruguay) were reviewed. The results of the review are listed in **Annex A**.

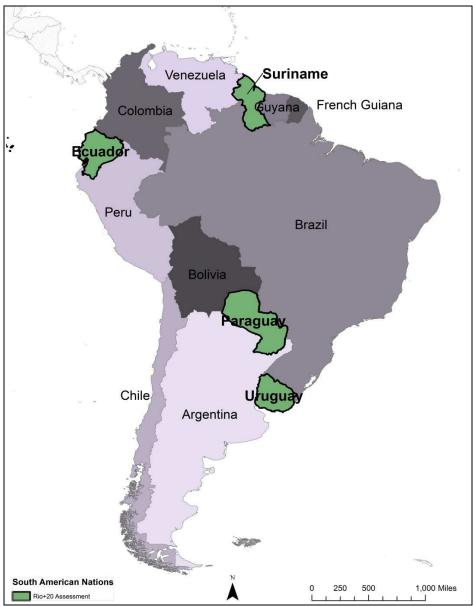


Figure 2.7. South American countries with Rio+20 National Sustainable Development Assessment Reports (in green)

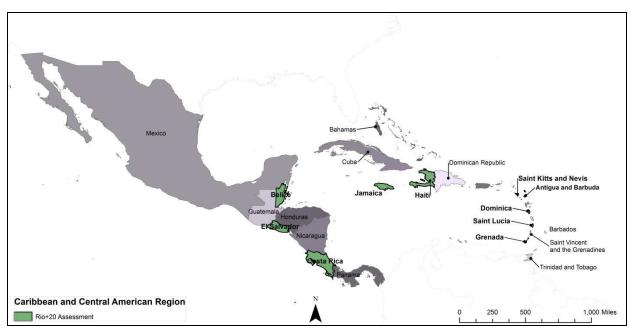


Figure 2.8. Central American and Caribbean with Rio+20 National Sustainable Development Assessment Reports (in green)

There are some striking variations and similarities. First, it is worth noting that most of the reports used document review, interviews, and stakeholder input for the development of the report. Two countries, Ecuador and Paraguay, provided more of a commentary on overall sustainability approaches by the UN and other nations. These two reports were critical of the paradigm of the capitalist development model and the overall conceptualization of green economic development as defined. They also provided concerns over social and economic equity as well as unequal resource trade. They asserted the need for the inclusion of culture and cultural diversity within the three pillars of sustainability: environment, economy, and equity. They also highlighted that they have concerns over the current models of consumption and production.

The remaining countries completed reports that provided some type of reflexive review of their sustainability initiatives. What is clear from the assessment is that there are some unifying concerns among some countries. For example, the island states of the Caribbean highlighted their concerns over their unique vulnerability due to climate change, economic fluctuations, limited natural resources, and food security. They also have concerns over the role of tourism as the main source of economic development options and the high cost of energy in their region.

Many of the countries that conducted reflexive reviews discussed the difficulty of assessing sustainable development absent clear indicators, data, and organizational bureaucracy or ability. However, some provided benchmarks against the MGD's or other international indicators. In addition, some provided analysis of change over time. Many also discussed specific projects underway such as water infrastructure improvement, educational initiatives, or

environmental improvements. However, none of the reports were unified in their approach to measuring or assessing sustainable development. Each reported some degree of coordination required to complete the assessment by reaching out to key informants and stakeholders. In other words, sustainable development is not regularly coordinated in most of the countries.

It is worth mentioning that some of the countries reported some unique situations associated with their natural setting. For example, Guyana noted that it has one of the largest intact undeveloped forests in the world and that the forest provides tremendous ecosystem services for the rest of the world. Belize, with its extensive coastal reefs, focuses heavily on environmental education and tourism.

2.2.11 Overview of Rio+20 Reports

This section provided an analysis of the Rio+20 reports in Section 2.2; however, it is worth noting that there is a great deal of variety in the content of the reports. Some provided distinct indicators with descriptions of progress, while others provided a broader overview of their situation and concerns about sustainable development. The next section takes a deeper look into national sustainability indicators and highlights the current status of indicator usage in some key nations. It is important to note that not all countries utilize indicators.

2.3 Summary of National Sustainable Development Indicators

There are dozens of different approaches to measure sustainability using sustainability indicators. Our purpose is not to review all of them. However, it is worth discussing several case studies to demonstrate how sustainability is measured by different countries. The following section reviews sustainable development indicators used by several countries. Prior to detailing the indicators that are used, it is worth listing several indicator schemes that have been developed by a variety of different institutions to compare and contrast sustainability across countries (**Table 2.4**). Thus, there are really two broad types of indicators that can be examined for their usefulness and efficacy. The first group is the internal measurements of sustainability utilized by countries to measure their own sustainable development using nationally derived indicators. Often, the indicators reflect specific concerns or issues within the countries. The second group is the external indicators that allow comparison of sustainability from one country to the other. The focus of this section is the indicator systems in the first group.

Table 2.4. List of sustainable development indicators for comparison

Name of Indicator Scheme	Comments
UNCSD Sustainable	This is a large list of indicators developed by the UN that can be used
Development Indicators	· · ·
•	by countries to develop indicators. They can also be compared
http://sustainabledevelopme	internationally as a composite index. The indicators focus on the three
nt.un.org/content/document	main pillars of sustainability.
s/guidelines.pdf	
Green growth indicators	A comprehensive database on green growth indicators for OECD
database	countries, BRIICS economies, Argentina and Saudi Arabia from 1990
	onwards, includes indicators for monitoring the natural asset base and
http://stats.oecd.org/Index.a	_
spx?DataSetCode=GREEN_GR	for monitoring economic opportunities and policy.
OWTH Millennium Development	The MDCs were not designed to measure sustainable development.
Goals and list of MDG	The MDGs were not designed to measure sustainable development; however, many nations are utilizing the MDGs as part of their overall
Indicators	
	sustainability measurement. Many MDGs and sustainability goals
http://mdgs.un.org/unsd/md	overlap, but the intent of the development of the goals are different.
g/Resources/Attach/Indicator	A list of indicators have been developed that can be used specifically
s/OfficialList2008.pdf	for countries to monitor progress toward the MDG goals.
Environmental Performance	This system was developed to evaluate environment and public health.
Index	It also tracks national policy and international agreements.
http://epi.yale.edu/	
Ecological Footprint	This indicator system focuses heavily on consumption and its impact
	on the environment.
http://www.footprintnetwor	on the environment.
k.org/en/index.php/GFN/	This index is a second of such that of life union life setime life
Happy Planet Index	This index is a measure of quality of life using life satisfaction, life
http://www.happyplanetinde	expectancy, and ecological footprint as overall broad indicators.
x.org/ International Resource and	This system utilizes resource consumption data, pollution discharge
Environmental Performance	, , , , , , , , , , , , , , , , , , , ,
	performance data, and economic indicators to measure eco-efficiency.
Index (REPI)	This indicator system was developed by Chinese Academy of Sciences
http://www.chinasd.csdb.cn/	for its national SD reports and is used comparatively to grade the
index.jsp	national efforts relative to other countries.
Sustainable Development	This system includes four broad categories of indicators:
Indicators in Germany	intergenerational equity (e.g. resource conservation, climate
https://www.destatis.de	protection, and government debt), quality of life, social cohesion, and
	international responsibility.

Source: authors' compilation. Note: the aim of this table is not to provide exhaustive list but rather an indicative one.

Prior to moving on to a review of several national indicator systems, it is worth taking a moment to discuss the external indicators that may allow international comparative analysis. **Table 2.4** summarizes the main indicators utilized to compare among countries. While it is not a complete list of all frameworks that have been developed, it is a useful starting point for those unfamiliar with comparative sustainability indicators. It must be noted that the

indicators utilized for international comparative analysis varies widely. However, they are all quantitative. Yet there is quite a range of theoretical variation within them. Some tend to accentuate sustainable development using quantitative measures that value the type of development in MDCs while others value the type of development in LDCs. In addition, it is worth noting that the quality of the data collected and its frequency of collection varies significantly across countries. This makes accurate comparisons questionable in some instances.

2.3.1 Summary of National Sustainability Indicators

Many countries have developed sustainability indicators to assess their overall progress toward sustainable development (a listing of countries with an indicator profile is included in **Annex A**). A subset of countries was selected to highlight some interesting trends and unique approaches and is summarized below. Following the summaries, an analysis of the indicators is provided.

2.3.1.1 Argentina

Argentina uses a complex set of indicators that break apart the concept of sustainability nearly 70 indicators within 16 main themes (**Table 2.5**). It is based on the Sustainability Assessment of Latin America and the Caribbean. The themes are unique in that the first eight are subsets of the standard three social, environmental, and economic pillars of sustainability with institutional metrics as a fourth. However, Argentina breaks these four indicator sets into two subsets that focus on sustainability and development to create the first eight subsets of indicators.

Following this, the scheme then addresses two unique categories: measures of global impact and energy use and efficiency. The scheme then looks at themes that overlap such as Measures of Economic and Environmental Condition.

All of Argentina's indicators are quantitative and can be assessed regularly assuming that there is data available. Their report provides abundant time-series information on the indicators and also provides some regional information in the form of maps and table. Argentina has completed four reports of the sustainability indicators (some of which changed between reports). The most recent report came out in 2009. The indicators appear very familiar to many who work with such data. Many of the measures are relatively standard measures of sustainable development.

Table 2.5. List of Argentina Sustainability Indicators

Table 2.5. List of Argentina Sus	tainability indicators	
Social - Development Indicators • Poverty (%) (three different	Measures of Economic and Environmental Condition	Measures of Social and Environmental Condition
 Poverty (%) (three different measures) Infant and child mortality Maternal mortality Life expectancy at birth Access to health care Completion of primary school Dropout rate of primary school Percentage of the Population aged 20 years and more to complete secondary school Percentage of the population between 18 and 24 years who neither work nor study Percentage of the population between 18-24 by sex 	Generation of solid waste Fertilizer use Pesticide sales volume Changes in agricultural land use in crops Changes in agricultural land use Variation of the volume of production as coupled with pollution potential Percent of companies that use environmental management and protection Renewables as a percentage of overall electrical production Production of industrial wood	Percentage of population with access to safe water Percentage of population with access to sewers Diarrhea, cholera, salmonella, and typhoid rate per 100,000 people under 5 Pneumonia and influenza rate per 100,000 people Measures of Social and Economic Condition Percent of households living in substandard housing Percent with difficulty in math and language in the 6 th year
between 10-24 by sex	Production of Firewood	in gange in the company
Social - Sustainability Indicator	Economic-Sustainable	Measures of Institutional and Social Condition
 Income distribution Population growth rate Dependency ratio 	 Investments as a percentage of GDP Profit as a percentage of GDP Employment rate Consumer Price Index 	 Public social spending Change in prison population Crimes per 100,000 people
Environmental - Development Indicators	Consumer Price Index Measures of Institutional and Economic Condition	Measures of Institutional and Environmental Condition
 Preservation of native forest Hydrocarbon reserves Water availability 	 Companies with ISO 1400 Certification Human resources involved with research and development Expenditures on research and development as a percentage of GDP 	 Public spending on environment and sanitation Protected lands as a percent of total Relationship between allowed fish catch and actual fish catch
Environmental - Sustainability	Institutional Measures for	Energy Use
Indicators • % of native forest coverage • % areas of soil erosion (by type) • Biodiversity • Use of renewable energy • Oil and gas reserves Economic - Development • GDP • Rate of Growth of GDP • Sectoral GDP	Sustainability Voter turnout Newspapers sold Infrastructure and cultural institutions Institutional Measures for Development Access to public information Evolution of organizations	 Energy use Greenhouse gas emissions relative to GDP Carbon dioxide emissions by MWh generated Water availability per person per basin Energy consumption per capita

2.3.1.2 *Canada*

Canada has two indices that measure sustainability: The Index of Wellbeing and the Environmental Indicators published by Environment Canada.

The Index of Wellbeing (https://uwaterloo.ca/canadian-index-wellbeing/) has been reported twice, but it can change as data becomes available day by day as it is a Web-based reporting system linked to databases. The system is complex in that it takes into account a wide variety of information within 8 domains: Community Vitality, Democratic Engagement, Education, Environment, Healthy Populations, Leisure and Culture, Living Standards, and Time Use. **Table 2.6** presents an overview of the index indicators. The indicators used within each domain include both raw ratios such as percentage of adults getting influenza injections, as well as external indices such as the Royal Bank of Canada Housing Affordability Index. Some of the values, such as the aforementioned housing affordability index or unemployment, can change rapidly, whereas other indicators are more stable with surveys that occur as a set number of interval years.

Many of the indicators that Canada selected for the Wellbeing Index are unique to Canada and were developed in consultation with experts and stakeholders. Nowhere else will one see indicators like: Average number of nights away per trip in the past year on vacation trips to destinations over 80km from home, or Percentage 3-5 year olds read to daily by parents. There is a distinctive "Canadianess" to the indicators that make them uniquely suited to Canada's national situation. But most of them are certainly not comparable with indicators in other countries. Many countries do not collect the type of data that Canada collects.

Environment Canada publishes a number of Environmental Indicators on their website: http://www.ec.gc.ca/indicateurs-indicators/. There are three broad categories of indicators: Air and Climate, Water, and Nature. There are subcategories of indicators for each of these, as listed on **Table 2.7**. Environment Canada has extensive web resources on their site that provide maps, data, and reports. These data are regularly updated with the most recent information dating to 2012. The values recorded are relatively standard such as percent of land protected or greenhouse gas emissions.

Table 2.6. List of Canadian Index of Wellbeing Indicators

- Percentage of voter turnout at federal elections
- Percentage that are not interested in politics
- Percentage that strongly agree it is every citizen's duty to vote in federal elections
- Percentage reporting being very/fairly satisfied with the way democracy works in Canada
- Percentage with a great deal or quite a lot of confidence in federal parliament
- Ratio of registered voters to eligible voters
- Percentage of women in Parliament
- Net official development aid as a percentage of gross national income

Time Use

- Percentage of labour force participants working more than 50 hours per week
- Percentage of 20-64 year olds reporting high levels of time pressure
- Percentage of 20-64 year olds giving unpaid care to seniors
- Percentage 65 years and older reporting daily active leisure activities
- Percentage 65 years and older reporting annual formal volunteering activities
- Mean workday commute time for individuals working for pay
- Percentage of individuals working for pay with flexible work hours
- Percentage 3-5 year olds read to daily by parents

Living Standards

- Ratio of top to bottom quintile of economic families, after tax
- After tax median income of economic families (2010\$)
- Percentage of persons in low income
- Scaled value of Centre of Living Standards (CSLS) economic security index
- Percentage labour force with long-term unemployment
- Percentage of labour force employed
- Canadian Imperial Bank of Commerce (CIBC) index of employment quality
- Royal Bank of Canada (RBC) housing affordability index

Healthy Populations

- Percentage of self-rated health as excellent or very good
- Percentage with self-reported diabetes
- Life expectancy at birth years
- Percentage of daily or occasional smokers among teens aged 12-19
- Percentage with probable depression
- Percentage rating patient health services as excellent or good
- Percentage of adults getting influenza immunization
- Average remaining years expected to be lived in good health, average Health Adjusted Life Expectancy (HALE)+15

Education

- Ration of childcare spaces to children aged 0-5 years
- Percentage of children doing well on five developmental domains
- Ratio of students to educators in public schools
- Average of five social and emotional competence scores for 12 to 13 year olds
- Basic knowledge and skills index for 13-15 year olds
- Percentage of Programme for International Student Assessment scores explained by socio-economic background
- Percentage of 20-24 year olds in population completing high school Percentage of 25 to 64 year olds in population with a university degree

Leisure and Culture

- Average percentage of time spent on the previous day in social leisure activities
- Average percentage of time spent on the previous day in arts and culture activities
- Average number of hours in the past year volunteering for culture and recreation organizations
- Average monthly frequency of participation in physical activity lasting over 15 minutes
- Average attendance per performance in past year at all performing arts performances
- Average visitation per site in past year to all National Parks and National Historic Sites
- Average number of nights away per trip in the past year on vacation trips to destinations over 80km from home
- Expenditures in past year on culture and reaction as a percent of total expenditures

Community Vitality

- Percentage reporting participation in organized activities
- Percentage with 6 or more friends
- Property crimes per 100,000 people
- Violent crimes per 100,000 people
- Percentage who feel safe walking alone after dark
- Percentage who feel that most or many people can be trusted
- Percentage who provide unpaid help to others on their own
- Percentage reporting very or somewhat strong sense of belonging to community

Environment

- Ground level ozone (ppm)
- Absolute GHG emissions (megatons of carbon dioxide per year)
- Primary energy production (petajoules)
- Water yield in southern Canada (cubic kilometers)
- Ecological footprint
- Viable Metal Reserves Index
- Canadian Living Planet Index
- Marine Tropic Index

Air and Climate National greenhouse gas emissions Ambient levels of air pollutants National air pollutant emissions Water Freshwater quality in Canadian Rivers Water availability in Canada Ecological integrity of National Parks

Status of major fish stocks

2.3.1.3 China

The People's Republic of China has been publishing annual sustainable development reports for the last fifteen years. They utilize the International Resource and Environmental Performance Index (REPI) that focuses on consumption, pollution discharge data, and economic indicators to measure eco-efficiency. There are two aspects unique to China. First, they are publishing a report annually. Second, their report uses a system that allows international comparison and benchmarking. There are five broad categories of indicators: Subsistence Support, Development Support, Environment Support, Social Support, and Human Capital and Governance. There are also subcategories of indexes as listed on **Table 2.8.** Chinese Academy of Sciences has developed a comprehensive web-based database with detailed time-series information at provincial and local levels. The overall assessment framework has focused on interactions between human activities and environmental sustainability. The main findings and emerging trends such as ranks among all provinces based on the indexes of the assessment framework are highlighted in the Annual Sustainable Development Strategy Report. The report has been submitted to national policymakers regularly for considerations, including to the National Development and Reform Commission.

2.3.1.4 The United Kingdom

The UK has produced two sustainable development indicator reports. They are currently in the process of revising the indicators that are utilized to assess sustainability. They utilize 68 national sustainability indicators that are within four themes. They are 1) sustainable consumption and production; 2) climate change and energy; 3) natural resource protection and enhancing the environment; and 4) creating sustainable communities and a fairer world. The indicators are also broken down into 15 sub-themes that are listed on **Table 2.9.**

The assessment focuses on time-series analysis to assess whether or not the Kingdom is making progress over time.

Like Argentina, many of the indicators are standard and include things like GDP, energy consumption, and pollution. However, the UK has developed several indicators that are unique to Great Britain such as measurements of homelessness and childhood obesity. Two indicators are still under development (measurement of sustainability education and measurement of social justice).

Table 2.8. List of Chinese Indicators for Assessing Sustainable Development Capacity

Subsistence Support	Development Support	Environment Support
 Land resource index Water resource index Climate resource index Biological resource index Agro-investment index Agro-capacity index Agro-efficiency index Rural production stability index Subsistence sustainability index 	 Ecological response cost index Economic openness index Human capital index Basic infrastructure index Economic scale index Economic potential index Economic structure index Industrial profitability index Business operation efficiency Product quality index Economic clusterizcion index 	 Emission and waste intensity index Atmosphere pollution index Water pollution index Geography fragility index Climate change index (frequency of natural disaster etc.) Land degradation index Environmental management index Ecological protection index
Social Support	Human Capital and Governance	
 Population development index Social structure index Living standard index Social fairness index Social security index Social protection index Society literacy index Society innovation capacity index 	 Education investment index Education scale index Education achievement index (change of adult literacy, ratio of colleague graduates ect.) Technology resources index Research and innovation output index Index of resource efficiency as the result of technology Local government efficiency index Economic and social adjustment index Environment management index 	

Source: China Sustainable Development Strategy Report (2013).

Table 2.9. List of United Kingdom Sustainability Indicators

Table 2.9. List of United Kingdo		
Greenhouse Gas Emissions Total emissions associated with UK consumption CO ₂ emissions by end user Aviation and shipping emissions Resource Use Domestic material consumption and GDP UK indigenous energy production and gross inland energy consumption Total abstractions from non-tidal surface and ground water, leakage losses and GDP Water consumption in liters per person per day	Electrical Generation Renewable energy as a percent of total energy Electricity generated, CO ₂ , NOx and SO ₂ emissions by electricity generators and GDP Natural Resources Bird population indices Biodiversity and conservation Land covered by environmental schemes Land use Redevelopment Housing density Sustainability of fish stocks Ecological impacts of air pollution	 Carbon Dioxide and Other Emissions Domestic CO₂ emissions, domestic energy consumption and household spending CO₂, NOx, PM10 emissions and GDP Private car CO₂ emissions, carkilometers and household spending Heavy goods vehicle CO₂ emissions, kilometers, tones and GDP Manufacture sector CO₂, NOx, SO₂, PM10 emissions and output Service sector CO₂, NOx, emissions and output Public sector CO₂, NOx, emissions and output
Water stress indicators	Air pollution emissionsRiver qualityProperty at risk of flooding	
WasteTotal wasteHousehold waste per person	 Contextual Indicators GDP Output per worker Total investment and social 	 Employment and Poverty People of working age in employment Population living in workless
SocietyCommunity participationCrime surveyFear of crime	 investment relative to GDP Population and population of working age Households, single person 	 households Percentage working age who are economically inactive Childhood poverty
Wellbeing	households and dwelling stock UK International Assistance	Young adults not in employment education or training
Wellbeing measure	Assistance as a percent of GNI and per capita	 Pensioners in low income households Proportion of working age people contribution to non-state pension
Number of trips per mode and distance travelled per year by purpose How children get to school Access to services Road accidents	Social Justice/ Environmental Equality Social justice (measures to be developed) Environmental equality Annual levels of ozone and particles and days when air pollution is moderate or higher Housing conditions Households living in fuel poverty Homelessness Local environmental quality Satisfaction with local area	Education 19 year-olds with Level 2 qualifications and above Measurement of knowledge of sustainability development (to be developed) Health Health inequality Healthy life expectancy Mortality rates Smoking Childhood obesity Diet

2.3.1.5 The European Union

While many European countries have developed individual national sustainable development indicators, the EU has a set that are in place for the member states at:

http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators/all indicators.

The indicators are highly quantitative and include relatively standard measures within ten categories: socio-economic development, sustainable consumption and production, social inclusion, demographic changes, public health, climate change and energy, sustainable transport, natural resources, global partnership, and good governance. Many of the indicators are used by many other countries, making the EU system relatively easy to compare across Europe and the world.

However, the EU system does not provide much local context. Thus, many EU nations have developed their own sustainability plans with indicators and goals that are locally significant. For example, in 2010, Germany set a target goal of achieving 35 percent of its electrical energy from renewable sources by 2020. It has also utilized a set of sustainable development indicators covering from interrogational equity, quality of life to international responsibility that have been evaluated four times. The Indicator Report (2012) has provided at-a-glance information on the status of the sustainability indicators, every indicator is assigned one of four possible "weather symbols". The Report is available at:

https://www.destatis.de/EN/Publications/Specialized/EnvironmentalEconomicAccounting/Indicators201 2.pdf? blob=publicationFile

2.3.1.6 The United States

The United States does not have any national policy on the development of sustainability indicators. While initial attempts were made under the Clinton Presidency, all national efforts were dropped after he left office in 2000. Since then, the USEPA developed community based indicators that can be used, but it is strictly voluntary.

However, it is worth noting that the US has many local, state, and regional indicator that are utilized. Perhaps the best known of these is PlaNYC that is in place for New York City http://www.nyc.gov/html/planyc2030/html/home/home.shtml. It is considered by many one of the best examples of an urban-based sustainability measurement system.

It is important to note that the bottom-up approach to sustainability assessment has positives and negatives associated with it. On the positive side, highly localized indicators can be constructed that have real meaning to localized environments and individual communities. On the negatives side, it is difficult to benchmark the localized systems due to the wide variation in indicators and data collection

2.3.1.7 *Morocco*

Morocco developed a set of indicators in the mid 1990's that have been evaluated at least three times. The most recent evaluation process was completed in 2007. Like many of the nationally derived indicators we have seen, there are several major indicators that are common to most indicator schemes (GDP, greenhouse gas pollution, and educational metrics) (**Table 2.10**). However, Morocco too developed their own set of unique indicators that provide opportunities for assessing conditions of concern to national stakeholders. In Morocco's case, there was interest in tourism, number of Agenda 21 communities, and access to large supermarkets.

Table 2.10. List of Moroccan Sustainability Indicators

ıar	ie 2.10. List of Mo	oroccan Sustainability	indicators
Po	oulation and Society	Planning and Land Use	Economic Measures Environmental Measures
•	Population growth	 Loss of agricultural 	GDP by sector Annual water use
•	Fertility rate	land due to	Per capita GDP Index of water quality
•	Percent below	urbanization	Foreign direct investment Sewage access
	poverty line	 Percentage slums 	 External debt/GDP Siltation of dams
•	Women as a percent	 Urbanization rate 	Fertilizer and pesticide Areas impacted by soil
	of workforce	 Area of green space 	use per hectare erosion, salinity, and
•	Employment rate	per capita	Percent irrigated farmland desertification
•	Illiteracy rate	Rate of	Percent pastoral land use Changes in land use
•	School enrollment	achievement of	Value and volume of fish Protected areas
•	Percent of budget	integrated	products • Species threatened with
	spent on vocational	programs in rural	Industrial waste water extinction
	training	areas	Number of restored mines Management of solid waste
•	State spending on	Total area of forest	and quarries • Greenhouse gas emissions
	education	lost annually	Number and size of large Sulfur and nitrogen oxides
•	State spending on	Forest area and	supermarkets pollution
	conservation and	afforestation rate	Energy balance by source Use of ozone depleting
	cultural heritage	Rate of	Share of renewable chemicals
•	Life expectancy at	reforestation	energy resources • Accidence of limits for
	birth	Population density	• Structure, volume, and ozone, SO ₂ , NO ₂ , and lead
•	Infant mortality	in coastal areas	rate of increase in • Flooded areas
•	Access to clean	Coastal erosion	transport mode • Number of organizations
	drinking water	Areas of coastal	Number of tourist nights focused on the environment
•	Maternal deaths per	preserve	per 100 inhabitants or sustainable development
	100,000 live births	Oil tanker traffic	Number of hotel beds per Public expenditure on
•	Mortality due to	Coastal water	100 inhabitants environmental protection as
	waterborne and	quality	Number of international % of GDP
	infectious diseases		tourists per 100 • Existence of national
			inhabitants environmental plans and
			strategies for sustainable
			development
			Number of Agenda 21
			communities

2.1.3.8 South Africa

In many ways, the South Africa situation is very similar to the Canadian example. South Africa developed a range of environmental sustainability indicators in 2002 (revised in 2008) that focus on air quality, biodiversity, land, marine systems, freshwater systems, groundwater, air pollution, ecosystem stress, population pressure, waste and consumption, water stress, human sustenance, environmental health, eco-efficiency, and environmental governance. While they do have some overlap with economic and social indicators, they are not as extensive as the more holistic Argentine, the UK or EU approach in placing all indicators within one wide quantitative system. Instead, like Canada, a separate set of indicators reflect the social and economic situation. In South Africa, these are known as Development Indicators and are within the areas of: economic growth and transformation, employment, poverty and inequality, household and community assets, health, education, social cohesion, safety and security, international relations, and good governance.

2.3.1.9 India

As far as could be ascertained, India does not utilize on single set of indicators to measure sustainability, but has a range of indicators for different sectors such as energy, forestry, and human health. However, some Indian scientists have suggested a new form of sustainability measurement because they believe that the standard forms of measuring sustainability do not take into consideration the complex nature of indicators or their collection http://www.indiaenvironmentportal.org.in/files/equity.pdf.

2.3.2 Analysis of Reviewed Sustainability Indicators

In our review of national approaches to sustainability indicators, we have found that there is a tremendous variation in approach from top-down to bottom-up approaches. This leads to several key questions that need to be addressed in order to assess their efficacy and effectiveness:

- 1. <u>Timing</u>. Most of the nations have produced more than one report, but the completion of reports does not seem to occur regularly (except in the case of the annual report by Chinese Academy of Sciences).
- 2. <u>Timing of Data Collection</u>. It is unclear from any of the reports how often data are collected. Some of the data are gathered in decadal scale or other long interval in national surveys and censuses. Other data changes rather quickly and can be updated on websites almost in real time (Canada). However, this timing calls into question the appropriateness of using different measuring intervals in the construction of indicators that are combined to represent national sustainability metrics.

- 3. <u>Funding of Data Management and Collection</u>. Many of the national indicators were developed by countries with a strong commitment to the issue of sustainable development. They have utilized precious public resources to conduct inventories, reports, and Websites. However, the funding for these initiatives varies significantly and thus the quality of data collection and overall effort varies based on funding and technical capacity.
- 4. Thematic variations of indicators. The indicators selected vary from country to country. Most countries utilize some basic indicators that are common to all (GDP, education, pollution, etc.). However, each country utilizes some unique indicators that reflect national concerns and values. Thus, these indicators are not always comparable. In addition, it is important to note that the indicator sets selected by nations reflect the unique history and political situation of each country.

3. Analysis of National Sustainable Development Assessments and Sustainability Indicators

This chapter included an inventory of sustainable development documents for countries around the world. We identified countries that have completed strategic planning documents, developed sustainability indicators, and completed national assessments. A more detailed summary of 69 national sustainable development assessment reports was conducted and a subset of nation's sustainability indicators was reviewed and analyzed. Below is a summary of key findings of this analysis. A regional review is also included, although it is difficult to fully interpret regional variations due to the small number of reports in some regions.

3.1 Comparison of National Assessment Report Format Produced for Rio+20

The reports varied considerably by format. Most provided an introduction that reviewed the human and physical geography of the nation. Following this, a summary of methods used to complete the report was highlighted. Next, the reports reviewed efforts for sustainable development since 1992. This was usually done with text, although some nations included tables of indicators. Following this, there was typically a discussion of movement toward a green economy. An executive summary or conclusion completed the report. Many reports also included appendices of data or ancillary documents.

However, several reports followed strikingly different formats. They provided broader evaluations of sustainable development efforts by the UN and critiques of overall approaches to sustainable development or green economies. Some provided distinct reports from stakeholder meetings. Many listed the stakeholders or agencies that provided inputs into the reports.

3.2 Methodological Approach Comparison of Reports Prepared for Rio+20

The reports were constructed using a desktop approach to document and data evaluation. Most of them included stakeholder work that may have included: interviews with key informants, focus groups, workshops, and meetings. The reports were sometimes modified from this input and sometimes stakeholder input was added as a separate section of the reports.

Countries varied widely in the approach to evaluating sustainable development and their efforts on green economy activities.

3.3 Existing Indicator Framework Comparison

Most of the countries provided some degree of evaluation of their efforts toward sustainable development and green economies in the Rio+20 assessment reports and overall sustainability planning documents. However, there was little agreement on approach. While many countries utilize their own form of sustainability assessment, by far the most common reported indicators were the MDGs and participation in Agenda 21 initiatives. However, there was no systematic approach utilized across the reports. Indeed, most countries developed a hybrid approach to reporting progress that included descriptions of individual programs or policy initiatives along with quantitative indicators such as MDG's, their own sustainability indicators, or other metrics of assessment. Some countries reported the difficulty in assessing sustainable development due to a lack of clear indicators useful for their circumstances.

3.4 Movement toward a Green Economy in Rio+20 Assessment Reports

The countries also varied considerably in their overall approach toward assessing green economies. Some expressed a clear embrace of the concept and noted that they have been involved in it for years prior to the development of the concept. Most embraced the idea and recorded specific efforts and indicators. A few, particularly some LDCs, expressed a tinge of distrust for the concept. They expressed concerns over the role of developed countries in promoting green growth for profit generation as opposed to broader support for LDC development.

3.5 Regional Variation and Thematic Issues Addressed

There is no doubt that there is some variation in the reports, but it is difficult to assess if the variation was regional due to the small sample population from some regions. However, some key themes emerged.

<u>Benchmarking.</u> Most countries evaluated their efforts relative to the MDG's and Agenda 21. Some opted to refer to other international agreements such as the UNFCCC and the

Convention on Biodiversity. Some of the island states expressed concern over the lack of specificity in indicators of interest for small island states.

<u>Energy and Global Climate Change.</u> Almost all reports expressed concern about climate change. This was especially true for countries with coastal systems and island states. However, countries such as Mali, with ecosystems and agricultural enterprises highly susceptible to climate change also expressed concerns and noted efforts. Many countries have embarked on green energy projects.

<u>The Environmental Pillar.</u> Many countries expressed significant improvement in environmental management and protection in the last 20 years since the last Earth Summit. However, there is a range of approaches and capacity. Some countries noted that they do not have the financial capacity or human capital to manage basic efforts on environmental policy and protection. Others, in contrast, have well established institutions, policies, and protections. Nearly all reports provided some degree of national context by describing particular projects, policy efforts, or improvements.

<u>Social and Economic Sustainability.</u> Most of the reports referenced a number of indicators within the MDG's to describe the improvements in social and economic sustainability. Some of the LDC's noted significant improvements in these indicators, while some did not report strong progress due to a variety of reasons such as broad poverty related issues, institutional capacity, or domestic conflict.

<u>Disasters and Conflicts</u>. Several countries noted the significance of natural disasters (in some cases exacerbated by global climate change) and conflict. These problems slow progress toward sustainable development.

3.6 Data Gaps

Many of the reports noted problem associated with developing indicators appropriate for measuring sustainability, and for assessing green economy related activities. While the MDG's and Agenda 21 are useful, they do not provide a full accounting of sustainability initiatives. Many countries developed their own indicators or used indicators from other sources.

As sustainable development moves forward across the globe, it will be important to develop a sound set of measurable outcomes that assess sustainability. Several have been developed (for example the Yale indicators http://epi.yale.edu/) but none have been widely accepted by the countries as evidenced in the report. It would be a useful exercise to promote a set of accepted indicators that could be modified for local conditions that could be compared and verified in the international community.

4. Conclusions and Policy Recommendations

The goal of this chapter was to inventory and review a number of different types of national reports on sustainability in order to evaluate the current status of national sustainable development assessment and sustainability indicators.

4.1 Sustainable Development Document Coverage

From analysis of UN documents, sustainable development report coverage varied depending on the region. In general, about half the developed countries have submitted CSD national reports, national sustainable development strategies, and sustainability indicators prior to Rio+20. Eastern Asia has a similar record with the CSD with about half of the countries represented. However, all Eastern Asian countries participate in MDG reporting while less than half of the developed countries are participating. Developed and Eastern Asian countries had the lowest percentage of reports submitted for Rio+20 (eight and zero percent of countries represented, respectively).

In contrast, the remaining regions, in particular African and Latin American countries, have not widely reported in CSD national reporting, but a high percentage of these countries submitted reports to Rio+20. Nearly all countries other than developed countries have been reporting progress under the MDG programme with between 85 and 100 percent participation across all countries; however, less than half of developed countries submit MDG progress reports.

The conclusion drawn from this inventory of sustainability reporting is that the majority of countries (almost 90 percent) have reported progress to the United Nations when considering both MDG progress reports and CSD reporting platforms. Over 20 countries have not participated in either MDG or CSD programmes beyond 2002 (i.e., WSSD), including Australia, Chad, Iraq, Ireland, Italy, New Zealand, and the Russian Federation.

4.2 Areas of Significant Progress

There is no doubt that some countries are making considerable progress toward sustainable development. Indeed, some are leading the way. Many nations and regions have developed indicators of sustainable development and measure them regularly (e.g., Canada, China, and Germany). There are some key regional leaders that are emerging that can serve as models or case studies for other countries in all regions.

Sustainable development has advanced since 2000 in a number of areas. The WSSD started assessment reporting in 2002 and CSD has continued with national reporting and the development of thematic sustainability initiatives. Many countries are utilizing the MDG as key indicators. While the MDGs and associated indicators are not specifically sustainable development indicators, the MDGs do set the stage for broader sustainability targets. As noted in this chapter and its accompanying tables, many individual countries report progress

and there is a strong understanding and embrace in most countries for the ideas represented in sustainable development.

In the developed world, the EU and Canada have distinct sustainable development programs with clear quantitative indicators for a number of economic, social, and environmental variables. The US stands unique in the developed world as largely not participating in sustainable development initiatives at the national level beyond programs that have been in place for some time. Many African nations have engaged their population in discussing sustainable development and setting goals and targets. Poverty and data collection and consistency remain challenges. In Asia, China developed an annual reporting system that is highly quantitative to measure annual progress as well as long-term goals. Other nations, such as India and Bhutan, have created their own form of internal reporting and evaluation. In Latin American and the Caribbean, there are a number of approaches to sustainable development ranging from broad acceptance and measurement of key indicators to robust critique of the process with little assessment or evaluation of sustainable development. It is difficult to assess progress in some of the other regions due to a lack of reporting or data.

4.3 Identified Key Themes and Indicators

There are several themes that are emerging as key issues in sustainable development. Those that emerged prior to Rio+20 are listed on Table 2.3. Many of them themes are focused on environmental issues including chemicals and waste; desertification, land degradation, and drought; and water and sanitation. Natural resources, specifically energy and mining, also proved significant. The most common sustainable development topics include sustainable transport, sustainable agriculture/food security, sustainable cities, and sustainable consumption and production.

Tables in Annex B include a summary of the Rio+20 reports some of which included a discussion of indicators used in countries. However, these reports were highly variable and it was difficult to assess if indicators are being used in some of the countries. From the Rio+20 assessments, it can be concluded that many nations report progress on MDGs, environmental pollution, development of sustainability rules and infrastructure, development of green energy, and a variety of other goals. However, it is difficult to assess long-term progress due to the relative newness of sustainable development initiatives and reporting and the lack of standardized reporting.

From the selected countries evaluated in Section 2.3 of this chapter, indicators vary significantly by country. Developing countries have been participating in MDGs and consistently utilize them to evaluate progress. They have used them in their sustainable development reports as one of the key indicators and there is an opportunity to build upon the MDGs as a cornerstone for assessing sustainable development in developing countries. While there are some indicators that are common to almost all nations (i.e., GDP, and education), some countries have developed indicators that are unique to their particularly economic, social and geographic

setting. For example, some of the developed countries are concerned with things associated with their unique economic and social setting (i.e. Canada's focus on health problems associated with obesity) while some of the developing nations are concerned about basic food, security, income, and health (i.e. Morocco's focus on rural development).

4.4 Areas of Significant Gaps

Although there has been significant progress made, it is uneven due to the lack of consistency in application of indicators, reporting, evaluation, and data collection. Not all nations have embraced sustainable development as a key approach to long-term success. The review highlighted that there are two key items lacking in national assessments, as described below.

- Lack of consistency in national reporting and indicator development. There are a number of approaches taken across the planet on sustainability that reflect unique economic, political, and geographic settings. While variation is healthy and appropriate, the range of reporting structure provides some difficulty for comparative analysis. There is also a lack of consistency in data collection and reporting which calls into question the appropriateness of international comparative analysis or regional assessment.
- Funding mechanism. Many developing countries do not have sufficient funding and/or human resources for sustained efforts for sustainability reporting or data collection for national purposes or international comparison. Often sustainability efforts are in-part funded by external agencies making the reporting, data collection, or assessment inconsistent. Many countries do not have institutions in place to manage sustainability efforts or assessments.

4.5 Recommendations

Based on review of sustainability documents in this chapter, it is clear that there is a lack of consistency in sustainable development reporting and indicator development. Not all countries are participating so it is difficult to assess broad global progress toward sustainable development. We recommend the following:

1. Development of standardized sustainable indicators to be used by nations regularly. The UN has 134 indicators that have been developed that could be utilized in a cafeteria style program of assessment. The MDGs and its 57 associated indicators have served as a proxy for sustainable development indicators in many cases. However, these do not provide a full measure of the sustainable development issues of concern and it would be helpful if a MDG-type of indicator set be developed and agreed upon by the UN for implementation for comparative purposes. Indeed, one recommendation from Rio+20 was to develop global sustainable development goals and their associated indicators that would be monitored at the national level. This

- chapter emphasizes the need for such goals due to the current lack of consistency that has been used leading up to Rio+20.
- 2. Development of standardized reporting and assessment of indicators will be crucial in monitoring SDG goals as discussed in item #1 above. The UN has a strong reporting system in place. However, not all nations are participating and not all reports contain comparative information that can be used to monitor national and global progress. Developing a system for collection and assessment of sustainable development goals will be an important item for the 2015 agenda.
- 3. It is also evident that there needs to be greater education about sustainable development. For example, not all countries agree on the definition or its application. In addition, not all countries have the capacity to conduct regular assessments or data collection. Greater emphasis must be placed on sustainability education at all levels of society.

It is worth noting that the concept and application of sustainability are relatively new for many practitioners and policy makers. Nevertheless, tremendous progress has been made and this progress is well represented in the dozens of reports that were reviewed in this chapter. It is also evident that the process of "doing" sustainability is in transition. We are becoming much more standardized in our approach to setting targets and developing indicators. Clearly, the UN shall play important roles in this regard. As time passes, it is likely that countries will develop indicators that provide greater comparative assessment while taking into account individual unique economic, geographic and cultural settings.

5. References Cited

We did not include a list of references here since we provide links to our work throughout the document. We would like some guidance on the reference format.

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)					
Afghanistan	Southern Asia						2010, 2008, 2005, 2004	National Strategic Development Strategy, http://www.undp.org.af/publications/ KeyDocuments/ANDS_Full_Eng.pdf						
Albania	Developed			Х		Х	2010, 2009, 2005							
Algeria	Northern Africa			Χ			2010, 2005							
Andorra	Developed						,							
Angola	Sub-Saharan Africa						2010, 2005, 2003							
Antigua And Barbuda	Latin American and the Caribbean			Х			2004							
Argentina	Latin American and the Caribbean				Х	X	2010, 2009, 2007, 2005							
Armenia	Caucasus and Central Asia			X		х	2010, 2005, 2001	Documents available, but not in English	National Council on Sustainable Development http://www.gov.am/en/councils/repor ts/9/					
Australia	Developed					Х		Website has numerous documents, most recent annual report was obtained for review	Department of Sustainability, Environment, Water Population and Communities http://www.environment.gov.au/index .html					
Austria	Developed	2009	2009		Х			Reports likely found in the two websites, but in German	Forum Sustainable Austria originated in 2002 (not in English) http://www.forum-sustainability.at/ & http://www.lebensministerium.at/					
Azerbaijan	Caucasus and Central Asia					Х	2006, 2005, 2003/2004							
Bahamas	Latin American and the Caribbean													
Bahrain	Western Asia					Х	2010, 2004- 2007, 2003							
Bangladesh	Southern Asia			Х		Х	2011, 2009, 2008, 2007, 2005, 2002		Sustainable Development Monitoring Council (established in 2009). No link to webpage					

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
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Barbados	Latin American and the Caribbean	2009	2009		Х		2007		National Commission on Sustainable Development – former					
Belarus	Developed			Х		Х	2010, 2005							
Belgium	Developed	2009	2009		х	х			Belgium Federal Council for Sustainable Development established in 1987 (Not in English) http://www.frdo-cfdd.be/ Limited English pages: http://www.cfdd.be/EN/publications.h tml					
Belize	Latin American and the Caribbean			Х			2010, 2005							
Benin	Sub-Saharan Africa			Х		Х	2010, 2003							
Bhutan	Southern Asia			Х			2010, 2008, 2007, 2005, 2002							
Bolivia	Latin American and the Caribbean					Х	2010, 2008, 2006, 2004, 2002, 2001		Bolivian Council on Sustainable Development (Ministry for the Environment and Water) established in 1996 http://www.mmaya.gob.bo/ (dead link)					
Bosnia and Herzegovina	Developed					Х	2010, 2004, 2003		,					
Botswana	Sub-Saharan Africa			Х		Х	2010, 2004							
Brazil	Latin American and the Caribbean						2010, 2007, 2005, 2004							
Brunei Darussalam	South-Eastern Asia													
Bulgaria	Developed	2005, 2007	2003, 2007		Х	Х	2008, 2005		National Advisory Council for Sustainable Development, Ministry for the Environment and Water established in 2006 http://www3.moew.government.bg/					
Burkina Faso	Sub-Saharan Africa			Χ		Χ	2010, 2003		National Council on Environment and					

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
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									Sustainable Development in 1998 (No link to website)					
Burundi	Sub-Saharan Africa			Х		Х	2010, 2004		·					
Cambodia	South-Eastern Asia	2002	2009	Х	Х	Х	2010, 2005, 2003, 2001							
Cameroon	Sub-Saharan Africa			Х		Х	2008, 2003, 2001		National Advisory Commission on Environment and Sustainable Development, Ministry of the Environment and Natural Protection (No link to website)					
Canada	Developed	2009	2009		X	X		Progress Report	Sustainable Development Advisory Council (SDAC) http://www.ec.gc.ca/dd-sd/					
Cape Verde	Sub-Saharan Africa			X			2010, 2009/2008, 2004							
Central African Republic	Sub-Saharan Africa			Х		Х	2010, 2007, 2004							
Chad	Sub-Saharan Africa													
Chile	Latin America				Х		2010, 2008, 2005		Advisory Council of the Ministry for the Environment http://www.mma.gob.cl/1304/w3-article-49186.html (in Spanish)					
China	Eastern Asia	Link (undated)		X	Х		2010, 2008, 2005, 2003	2013 Report (in Chinese)	http://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=858&menu=35					
Colombia	Latin American and the Caribbean	2007	2007		X		2011, 2008, 2005		National Council for Economic and Social Policy https://www.dnp.gov.co/CONPES.aspx (in Spanish)					
Comoros	Sub-Saharan Africa			Х		Х	2009, 2005, 2003							
Congo, Republic of	Sub-Saharan Africa			Х			2010, 2004							
Congo, The	Sub-Saharan Africa			Χ		Χ	2010, 2004		Inter-Ministerial Committee on					

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)					
Democratic Republic Of The									Environment, Nature Conservation, and Tourism. No link to website					
Costa Rica	Latin American and the Caribbean			Х	Х	Х	2010, 2004							
Cote D'Ivoire	Sub-Saharan Africa			Χ			2010							
Croatia	Developed	2009	2009		Х	Х	2010, 2006, 2004	Documents available	Sustainable Development and Environmental Protection Council, http://www.mzoip.hr/default.aspx?id=7916					
Cuba	Latin American and the Caribbean						2010, 2009, 2005							
Cyprus	Developed					Χ								
Czech Republic	Developed	2009	2009		Х	Х	2004		Czech Republic Government Council for Sustainable Development established in 2003, http://www.mzp.cz/en/sustainable_de velopment_at_the_national_level (two documents downloaded)					
Denmark	Developed	2007/20 09	2003, 2007		Х									
Djibouti	Sub-Saharan Africa			Х		Х	2010, 2005							
Dominica	Latin American and the Caribbean			Х			2006							
Dominican Republic	Latin American and the Caribbean			X? (wrong report)		Х	2010, 2008, 2005, 2004		National Council of Environment and Natural Resources. Link is dead					
Ecuador	Latin American and the Caribbean			Х			2007, 2005							
Egypt	Northern Africa						2010, 2008, 2004, 2002							
El Salvador	Latin American and the Caribbean	2007	2007	Х	Х	Х	2009, 2007, 2005, 2004							
Equatorial Guinea	Sub-Saharan Africa			Х			2009, 2005							

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Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)						
Eritrea	Sub-Saharan Africa						2005		·						
Estonia	Developed	2009	2009		Х	Х			Estonian National Commission on Sustainable Development No link to website						
Ethiopia	Sub-Saharan Africa			Χ			2010, 2004								
Fiji	Oceania	2003 <i>,</i> 2005	2003		Х		2010, 2004		National Committee on Sustainable Development (NCSD), No link to website						
Finland	Developed	2009	2009		Х	Х									
France	Developed	2009	2009, 2010*		Х		2004		National Committee for Sustainable Development and Environment Roundtable, http://www.developpement- durable.gouv.fr/-Le-Grenelle-de-l- environnement-dehtml (indicator report downloaded)						
Gabon	Sub-Saharan Africa						2010, 2007, 2003								
Gambia	Sub-Saharan Africa			Х		X	2010, 2005, 2004, 2003								
Georgia	Caucasus and Central Asia					Х	2007, 2005, 2004								
Germany	Developed	2009	2009, 2012		Х	Х		Sustainable Development in Germany Indicator Report 2012 posted on: https://www.destatis.de/EN/Publications/Specialized/EnvironmentalEconomicAccounting/Indicators2012.pdf?blob=publicationFile	German Council for Sustainable Development. Webpage is in German (http://www.nachhaltigkeitsrat.de/)						
Ghana	Sub-Saharan Africa	2003, 2009	2009	Х	Х		2010, 2006, 2004								
Greece	Developed	2009	2007		Х										
Grenada	Latin American and the Caribbean			Х		Х									
Guatemala	Latin American and the Caribbean	2003		X (Dead)	Х		2010, 2008, 2006, 2002		National Council for Protected Areas http://www.conap.gob.gt/ (no reports seem to focus on sustainable						

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)					
									development)					
Guinea	Sub-Saharan Africa						2003							
Guinea-Bissau	Sub-Saharan Africa			Χ		Χ	2004							
Guyana	Latin American and the Caribbean			Х			2011, 2007, 2003							
Haiti	Latin American and the Caribbean			Х		Х	2008, 2004							
Honduras	Latin American and the Caribbean					Х	2010, 2007, 2005, 2004, 2003		National Council for Sustainable Development/National Council for Environment, http://www.serna.gob.hn/default.htm (Dead link)					
Hungary	Developed	2009	2009		Х	Х	2004		Hungarian National Council for Sustainable Development, http://www.nfft.hu/page.php?item=2 (not in English) (two reports in English in GNNCSDS)					
Iceland	Developed	2007	2007		Х				,					
India	Southern Asia			Х			2011, 2009, 2007, 2005							
Indonesia	South-Eastern Asia						2011, 2009, 2007, 2005							
Iran	Southern Asia				Х	Х	2004		2006 Report posted on: http://sustainabledevelopment.un.org/ index.php?page=view&type=400&nr=8 54&menu=35					
Iraq	Western Asia													
Ireland	Developed								National Economic and Social Council (NESC), http://www.nesc.ie/					
Israel	Developed	Not Dated	Not dated (2004 ?)		Х	Х			National Commission for Future Generations (2001-2006) – former, no link					
Italy	Developed								Interministerial Committee for					

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION														
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)						
									Economic Planning (no link)						
Jamaica	Latin American and the Caribbean			Х			2009, 2004								
Japan	Developed	2005	2003		Х	Х			Japan Council for Sustainable Development – former, No link						
Jordan	Western Asia	2009	2009		Х	Х	2010, 2004		Sustainable Development Networking Programme/General Corporation for Environment Protection, http://www.sdnp.jo/						
Kazakhstan	Caucasus and Central Asia				Х	Х	2010, 2007, 2005, 2002								
Kenya	Sub-Saharan Africa			Х		Х	2009, 2005								
Kiribati	Oceania						2007								
Korea, Democratic People's Republic Of	Eastern Asia						2004								
Korea, Republic Of	Eastern Asia	2007	2007		Х	Х	2005	Reports available	Presidential Commission on Sustainable Development, http://eng.me.go.kr/content.do?meth od=moveContent&menuCode=pol_pol edu gov presidential						
Kuwait	Western Asia						2010, 2005, 2003								
Kyrgyzstan	Caucasus and Central Asia					Х	2010, 2008, 2003								
Lao People's Democratic Republic	South-Eastern Asia			Х			2010, 2008, 2004								
Latvia	Developed					X	2005								
Lebanon	Western Asia			Х			2008, 2003								
Lesotho	Sub-Saharan Africa						2009, 2008, 2005								
Liberia	Sub-Saharan Africa			X											

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)					
Libya, Arab Jamahiriy	Northern Africa						2008							
Liechtenstein	Developed													
Lithuania	Developed	2003/ 2004, 2007	2007		Х	Х	2004, 2002		National Commission on Sustainable Development, http://www.am.lt/VI/en/VI/index.php					
Luxembourg	Developed								Luxembourg High Council for Sustainable Development, http://www.csdd.public.lu/fr/index.ht ml (not in English)					
Macedonia, The Former Yugoslav Republic	Developed					Х	2009 2005							
Madagascar	Sub-Saharan Africa			Х			2010, 2007, 2004, 2001							
Malawi	Sub-Saharan Africa		2011	Х		Х	2010, 2009, 2003		National Council for the Environment, ttp://www.malawi.gov.mw/index.php? option=com_content&view=article&id =64&Itemid=9					
Malaysia	South-Eastern Asia					Х	2010, 2005							
Maldives	Southern Asia						2010, 2007, 2005							
Mali	Sub-Saharan Africa	2009	2009	Х	Х	Χ	2007, 2004							
Malta	Developed								National Commission for Sustainable Development, No website link					
Marshall Islands	Oceania						2009, 2005							
Mauritania	Sub-Saharan Africa			Х		Х	2010, 2008, 2005, 2002							
Mauritius	Sub-Saharan Africa	2009	2009	Х	Х		2010, 2001		Maurice Ile Durable (MID) Commissions, http://www.gov.mu/portal/sites/mid/					

		AN	NEX A. IN	IVENTORY	OF NATION	AL SUSTAIN	ABLE DEVELOP	MENT DOCUMENTS, BY NATION	
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)
									MIDRole.htm, Six working groups (energy, environment, employment, education, equity) (papers on each one)
Mexico	Latin American and the Caribbean	2009	2009		Х	Х	2010, 2006, 2005		
Micronesia, Federated States Of	Oceania						2010		
Moldova, Republic Of	Developed	2003		Х	Х	Х	2010, 2005		
Monaco	Developed								
Mongolia	Eastern Asia				Х		2009, 2007, 2004		
Montenegro	Developed						2010, 2005, 2004	One document	National Council for Sustainable Development (NCSD) of Montenegro (No link to website)
Morocco	Northern Africa	2003	2003, 2007	Х	Х		2009, 2007, 2005, 2003		
Mozambique	Sub-Saharan Africa	2009		Х	Х	Х	2010, 2008, 2005, 2002		
Myanmar	South-Eastern Asia						2011, 2005		
Namibia	Sub-Saharan Africa					Χ	2008, 2004		
Nauru	Oceania	2007	2007		Χ		2012		
Nepal	Southern Asia			Χ			2008		
Netherlands	Developed	2009	2009		Х	Х		2007 Report on Council Website (in dutch)	The Councils for the Environment and Infrastructure, http://www.rli.nl/ (in dutch, 315 publications)
New Zealand	Developed					Х		2002 Assessment, 2007 Review	Parliamentary Commissioner for the Environment (PCE), http://www.pce.parliament.nz/
Nicaragua	Latin American and the Caribbean					Х	2010, 2004, 2003		National Council of Economic and Social Planning, No link to website

	ANNEX A. INVENTORY OF NATIONAL SUSTAINABLE DEVELOPMENT DOCUMENTS, BY NATION													
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Niger	Sub-Saharan Africa			Х		Х	2010, 2007, 2003							
Nigeria	Sub-Saharan Africa			Х			2010, 2007, 2006, 2005, 2004							
Northern Mariana Islands	Oceania													
Norway	Developed	2005	2003		Х	Χ								
Oman	Western Asia													
Palau	Oceania													
Palestine	Western Asia													
Panama	Latin American and the Caribbean					Х	2009, 2005, 2003		National Council for Sustainable Development, http://www.presidencia.gob.pa/ (in Spanish)					
Papua New Guinea	Oceania						2010, 2005							
Paraguay	Latin American and the Caribbean			Х		Х	2010, 2005, 2003							
Peru	Latin American and the Caribbean					Х	2010, 2008, 2004							
Philippines	South-Eastern Asia					Х	2010, 2007, 2005	State of Sustainable Development chapter in: http://pcsd.neda.gov.ph/publications/epa-21/	Phillipine Council for Sustainable Development, http://pcsd.neda.gov.ph/index.asp					
Poland	Developed	2007	2007		Х	Х	2002		State Environmental Council of Poland, http://www.mos.gov.pl/pros (In development and In Polish)					
Portugal	Developed						2004	Two documents	National Council on Environment and Sustainable Development, http://www.cnads.pt/en/					
Puerto Rico	Latin American and the Caribbean													

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Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)				
Qatar	Western Asia						2005	,	,				
Romania	Developed	Undated			Х	Х	2012, 2004						
Russian Federation	Developed					Х		Two documents (Green Economy and 2010 Annual Report)	Institute for Sustainable Development of the Civic Chamber of the Russian Federation, (http://www.sustainabledevelopment.ru/eng/index.php)				
Rwanda	Sub-Saharan Africa			Χ		Χ	2007, 2003						
Saint Kitts And Nevis	Latin American and the Caribbean			Х			2006						
Saint Lucia	Latin American and the Caribbean			Х		Х	2008						
Saint Vincent And The Grenadines	Latin American and the Caribbean												
Samoa, Western	Oceania						2010						
San Marino	Developed												
Sao Tome And Principe	Sub-Saharan Africa					Х	2008, 2004						
Saudi Arabia	Western Asia						2011, 2010, 2009, 2008, 2005						
Senegal	Sub-Saharan Africa		2009	Х	Х	Х	2011, 2010, 2009, 2008, 2003, 2001						
Serbia	Developed	2007	2007	Х	Х		2009, 2006, 2005, 2004 Kosovo 2006, 2004		National Council for Sustainable Development – former, No Link				
Seychelles	Sub-Saharan Africa			Х		X	2010						
Sierra Leone	Sub-Saharan Africa						2010, 2005						
Singapore	South-Eastern Asia												

		ANI	NEX A. IN	IVENTORY (OF NATION	AL SUSTAIN	ABLE DEVELOP	MENT DOCUMENTS, BY NATION	
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)
Slovakia	Developed	2005			Х	Х	2004 (no link)		
Slovenia	Developed					Х	2004		Slovenian Council for Environmental Protection, http://www.svo-rs.si/ (Dead link)
Solomon Islands	Oceania			Х			2010, 2004		
Somalia	Sub-Saharan Africa						2010, 2007		
South Africa	Sub-Saharan Africa	2003	2003	Х	Х		2010, 2007, 2005		
Spain	Developed	2008	2008		Х			2003 Report posted on: http://sustainabledevelopment.un.org /index.php?page=view&type=400&nr= 849&menu=35	Advisory Council for the Sustainable Development of Catalonia (this link is in Spanish), http://www15.gencat.cat/cads/AppPH P/index.php
Sri Lanka	Southern Asia			Х			2009, 2005		
Sudan	Sub-Saharan Africa						2010, 2004		
Suriname	Latin American and the Caribbean						2009, 2005		
Swaziland	Sub-Saharan Africa					Х			
Sweden	Developed	2003	2003		Х		2010, 2007, 2003		Environmental Research Council, http://www.framtidskommissionen.se/ om-oss/about-us (In Swedish)
Switzerland	Developed	2009	2009		Х	Χ			
Syrian Arab Republic	Western Asia			Х		Х	2010, 2005, 2003		
Tajikistan	Caucasus and Central Asia			Х		Х	2010, 2003		
Thailand	South-Eastern Asia			Х			2009, 2004	2006 Report posted on: http://sustainabledevelopment.un.org/ index.php?page=view&type=400&nr=8 55&menu=35	Office of the National Economic and Social Development Board (NESDB) http://eng.nesdb.go.th/Default.aspx?tabid=36
Timor-Leste	South-Eastern Asia			Х		Х	2009, 2004		
Togo	Sub-Saharan Africa	2009	2009	Χ	Χ	Х	2010, 2008,		

		AN	NEX A. IN	IVENTORY	OF NATION	AL SUSTAIN	ABLE DEVELOP	MENT DOCUMENTS, BY NATION	
Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)
							2003		
Tonga	Oceania					Χ	2010, 2005		
Trinidad And Tobago	Latin American and the Caribbean								
Tunisia	Northern Africa					Х	2004		
Turkey	Western Asia	2005		Х	Х	Х	2010, 2005	2012 Report posted on: http://sustainabledevelopment.un.org/ index.php?page=view&type=400&nr=8 53&menu=35	
Turkmenistan	Caucasus and Central Asia					Х	2004		
Tuvalu	Oceania						2010, 2006		
Uganda	Sub-Saharan Africa			Х		Х			
Ukraine	Developed					Х	2010, 2005, 2003		
United Arab Emirates	Western Asia						2007, 2004		
United Kingdom	Developed	2009	2009		Х	Х		Two documents identified	Sutainable Development Commission (abolished in 2011), http://www.sd- commission.org.uk/ & Sustain Wales
United States	Developed				Х				
Uruguay	Latin American and the Caribbean			Х			2009, 2003		
Uzbekistan	Caucasus and Central Asia			Х		Х	2006		
Vanuatu	Oceania						2010, 2005		
Venezuela	Latin American and the Caribbean						2010, 2004		
Vietnam	South-Eastern Asia			Х			2010, 2005, 2003, 2002	One document	National Council for Sustainable Development, http://www.monre.gov.vn/v35/default .aspx?tabid=673
Yemen	Western Asia			Х			2010, 2005, 2003		
Zambia	Sub-Saharan Africa			Х	Х	Χ	2011, 2008,		

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Nation	Region	NSSD Profile or Report Posted Date)	Indicator Profile (Posted Date)	Rio+20 Assessment and Global SD Report 2013 site	CSD National Reports (2004-2011)	WSSD National Assessment Report (2002)	MDG Progress Report Dates	Other Identified Reports (Not a comprehensive survey)	Government Agency of Sustainability (Not a comprehensive survey)	
							2005, 2003			
Zimbabwe	Sub-Saharan Africa			Х			2010, 2004			

			ANNEX B. SUMMARY OF RIO+20 NA	ATIONAL SU	STAINABLE DEVELOPN	MENT REPORTS, BY REGION
Region	Country	Publication Date	Title	Funding Agency	Methodology	Description
Caucasus and Central Asia	Armenia	2012	Rio+20 National Assessment Report	UN Armenia Office	Report + stakeholder input	National focus has been on economy and social issues. Provided a number of indicators used by the nation on a number of sustainability issues. Provided a number of examples of green economic development and specific sustainability projects.
	Tajikistan	2012	National Review Towards a Green Economy in Tajikistan	UNDESA, UNDP	Committees, stakeholder work, report	National action plan for climate change; strong focus on water; hydropower; looks at green energy as a key aspect of its future green economy
	Uzbekistan	2011	Uzbekistan on the Road to Sustainable Development	Unclear	Report	Reviewed a variety of challenges and opportunities. Benchmarks include some internal data and MDGs
Developed Nations	Albania	2012	A new path for the sustainable development: a green economy for Albania	UNDESA, UNDP	Report + input from multi- stakeholder input.	Global footprint network; Human Development Index, Environmental Performance Index. Strong focus on development of policy and environmental institutions. National sustainability planning process.
	Belarus	2012	Sustainable development of the Republic of Belarus Based on "Green" Economy Principles	Unclear	Report + input from stakeholders	Plan for sustainable socio-economic development using Agenda 21; development of a unique approach suitable to Belarus
	Moldova	2012	National Report for UN CSD 2012 Rio+20	UNDESA, UNDP, variety of other organiza tions and national entities	Report + input from stakeholders	Benchmark on MDGs. Created a number of reports that focus on themes of sustainable development including agriculture and energy.
	Serbia	2012	Study on achievements and perspectives towards a green economy and sustainable growth in Serbia	UNDP, UNEP	Report + input from stakeholders	Has a number of planning documents on sustainable development. Benchmarking on ecological footprint, MDG, and aligning policies to EU standards.
Eastern Asia	No reports subm	itted from East	ern Asia			
Latin America and the Caribbean	Antigua And Barbuda	No date provide. Probably 2012	Stock Taking Report Rio+20 Antigua and Barbuda	UNDESA	Stocktaking report (Note: this is the document reviewed), Stakeholder meetings, and development of the national report	The stocktaking report reviewed the current status of the nation. It 1) provided background on the region, 2) summarized policy, legal, and institutions framework for integrated Millennium Ecosystem Assessments (MEA) and Agenda 21, and 3) reviewed policy directives for development groups. Of special interest to Antigua and Barbuda are economic diversification; financial management, public indebtedness, and tax reform; poverty reduction; and alternative energy for economic security and greenhouse gas mitigation.

			ANNEX B. SUMMARY OF RIO+20 NA	ATIONAL SUS	STAINABLE DEVELOPM	1ENT REPORTS, BY REGION
Region	Country	Publication Date	Title	Funding Agency	Methodology	Description
	Dominica	Undated (2012?)	National Sustainable Development Report	UNDESA UNDP	Review of literature, Interviews with key informants, and Stakeholder input	Developed several key recommendations: 1) Achieve a collective agreement on the priorities for Dominica; 2) Achieve low carbon climate resilient development; 3) Pursue development of geothermal potential; 4) Information technology should be given a higher priority; 5) Reform of education system; 6) New and reliable financing mechanisms to support the implementation of Dominica's green economy; and 7) Dominica's vision of green economy should be seen as a comprehensive approach to sustainable development. No clear comparison of specific indicators.
	Grenada	Unclear 2012?	United Nations Conference on Sustainable Development (RIO+20) National Preparatory Process Background Paper and Workshop Report: Grenada	Unclear	Literature and document review, interviews with key informants, and stakeholder input with national stakeholders and policy makers	Concerns over vulnerability in current economic downturn, natural hazards, climate change. Extensive projects and government support for green projects and development. However, there are concerns over how to collect data for indicators. No indicator tool available. A number of challenges and responses to challenges are listed such as the challenge of availability of hybrids for agriculture is countered with an organic farming initiative. No clear comparison of specific indicators.
	Haiti	2011	Rapport de synthèsesur les progrès réalizés en matière développement durable en Haïti	UNDP; Haiti Minister of the Environ ment	Literature review; interviews; stakeholder meetings; a variety of financial and environmental indicators were used to benchmark Haiti against itself and against other nations	Recommendations: 1. continued support for reforestation efforts in developing countries; 2. the development and access to alternative sources of energy in developing countries; 3. the fight against land degradation and desertification and promoting conservation of biological diversity; 4. intensification of adaptation to climate change by creation of a compensation fund and a post-Kyoto agreement on greenhouse gas impacts; 5.the promotion of the most vulnerable social groups through the creation of green jobs green, the search for gender equality and the fight against poverty. Presented a number of indicators, although not clearly organized or compared.
	Jamaica	Report 1 was produced in 2011 and Report 2 was produced in 2012	Two reports: 1) Jamaica: Input to the compilation document to serve as a basis for the preparation of the Zero Draft of the Outcome Document for Rio+20; and 2) Stakeholder Report: National Consultation on State of the Agriculture and Fisheries Sector in the Context of the Green Economy and Institutional Framework for Sustainable Development in Preparation for the Rio+20 Earth Summit	Unclear	Review of documents; interviews; stakeholder work. Note: a special stakeholder report was produced.	Priority concerns are as follows: Over exploitation of fishing; invasive species; land management (especially degradation of watersheds and reefs); loss of agricultural land and food security; collection and accessibility of data management of environmental information; socioeconomic issues (especially unemployment and crime); youth; aging population; HIV/AIDS; environmental stewardship. Few indicators presented.

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Region	Country	Publication Date	Title	Funding Agency	Methodology	Description
	Saint Kitts And Nevis	Unclear (2012?)	United Nations Conference on Sustainable Development (Rio+20) National Preparatory Process, St. Kitts and Nevis Stocktaking Report	Ministry of Sustaina ble Develop ment and the UNDP	Review of documents and stakeholder interviews	The report had 4 recommendations: 1. Development of appropriate regulations and or guidelines to effectively support legislative provisions; 2. Development and implementation of a clearly articulated policy to govern sustainable development; 3. Monitoring and evaluation of institutional and capacity development interventions; and, 4. Development and implementation of integrated financing and programme strategies such as the PSIP. Few indicators presented beyond policy implementation.
	Saint Lucia	2012	United Nations Conference on Sustainable Development (Rio+20) National Preparatory Process National Synthesis Report: St. Lucia	Unclear	Document review, national multi stakeholder input	Utilized a political and policy benchmarking metric to measure success. Strong commitment to sustainable development. Enhancement of natural assets. Looks forward to the development of sustainable development goals.
	Belize	Undated. 2012?	Belize National Sustainable Development Report	Ministry of Forestry, Fisheries , and Sustaina ble Develop ment, Belize; UNDP	Stocktaking report, Literature review and interviews with key informants, and stakeholder input.	Strong focus on climate change mitigation, management of water supply, natural disasters (hurricanes), coastal and marine resources, tourism, biodiversity, waste management, energy, agriculture, and MDG's. It did address key challenges to sustainable development: environment and social vulnerability, natural disasters, climate change, economic vulnerability, and policy and institutional challenges. It also recognized opportunities for sustainable development: green economy and integration of sector policies.
	Costa Rica	2011	Primer Foro Nacional de Consulta Sobre el Proceso Hacia La Cumbre de Desarrollo Sostenible Rio+20	Unclear	Development of work group sector reports integrated into a whole report with stakeholder input	Strong focus on green jobs, social inclusion, energy, food security and sustainable agriculture, water resources, sustainable cities, and oceans. The report noted the absence of clear methodology for the construction of measurable sustainability indicators. It noted that Costa Rica is one of the leading green economies in the world and that reports do not always recognize the results of key advances in sustainability efforts.
	Ecuador	Unclear 2012?	Ecuador Hacia Rio +20	Unclear	The report is more of a position paper than a reflexive review of Ecuador's sustainability initiatives/efforts.	Critical of the capitalist model of development and the general concept of the green economy. The report also highlights the importance of indigenous knowledge, the importance of economic and social equity, and the unequal transference of resources. They assert that a new development paradigm is needed: El Buen Vivir. They also suggest the addition of culture and cultural diversity within the three pillars framework of sustainable development. However, the report does not provide specific indicators about the country.
	El Salvador	2011	Informe Nacional de Síntesis: El Salvador	Unclear	Background research, input from key informants, and	Strong focus on environmental risk reduction, environmental assessment, environmental land use planning, ecosystems, pollution, climate change, solid waste management, and local and territorial environmental management. The report also recommends particular management

			ANNEX B. SUMMARY OF RIO+20 N	IATIONAL SU	STAINABLE DEVELOPN	MENT REPORTS, BY REGION
Region	Country	Publication Date	Title	Funding Agency	Methodology	Description
					input from stakeholders.	strategies for the implementation of sustainability. Indicators focus on policy development.
	Guyana	2012	Rio+20 National Report: A Green Economy and Institutional Framework for Sustainable Development: The Guyana Context	Unclear	Review of documents; stakeholder meetings	Some interesting issues: irregular enforcement of rules; financial and human resource constraints; more integrated planning needed; climate variability and climate change; energy; strengthening of communities; creating of new jobs; improving water safety, health, and housing; significance of Guyana forests (ecosystems services). Indicators: interior plans, MDG's, international agreements.
	Paraguay	Unclear	Documento Paraguay	Unclear	Position paper on Paraguay's views on sustainable development; not reflexive on its own initiatives.	Raises concerns on the following: - Rio 92 commitments, including Eradication of poverty, ensuring social inclusion, and reducing inequalities; Respect the sovereign rights of States over their natural resources; the recognition of the need to generate green employment; Respect for the Rights of Indigenous Peoples and local communities; The non-implementation of "green protectionism" that disguised restrictions on trade, particularly against exports from developing countries; the fulfillment of commitments to change production and consumption patterns; the design of a process that ensures a true transfer of technology and capacity building; the definition of ambitious targets for reducing emissions under enforcement mechanisms; the recognition and respect of the biophysical limits and life cycles of nature, its importance to life and promoting a harmonious relationship with it; the orientation of the efforts in building a new international economic order; the recognition of the high vulnerability of developing landlocked countries; and, the reduction of trade barriers and the establishment of balanced rules for developing countries. No indicators presented.
	Uruguay	Unclear (2012?)	Documento del proceso nacional hacia Rio+20. Several other documents produced by Uruguay for preparation of the meeting were reviewed as well.	Ministrie s of Housing, Land and Environ ment, and Foreign Affairs; UNEP; UNDESA	Document review and key stakeholder input	Reviewed progress toward various goals including the MDGs and Agenda 21. Several priorities were identified.
North Africa	Algeria	2012	Journee Nationale D'Information sur la Conference des Nations Unies sur le Developpement Durable (Sommet de Rio+20)	UNDP	Report + input from a National Information Day Stakeholder event.	Reviewed various national efforts. No benchmarking for MDGs or Agenda 21. However, strong concern stated for the impact of sustainable development and green economy efforts on LDC's.
	Morocco	2012	Sustainable Development in	Unclear	Document report.	Developed a national office with legal authority on sustainable

Daria		Dublication	ANNEX B. SUMMARY OF RIO+20 NA			,
Region	Country	Publication Date	Title	Funding Agency	Methodology	Description
		Dute	Morocco Achievements and Persepectives from Rio to Rio+20	Agency		development. Development of land management and planning. Strong focus on water given the region's arid character. Also used hybrid indicators including MDGs. However, extensive benchmarking and evaluation. Also wide acceptance of movement toward a green economy.
Oceania	Soloman Islands	2011	Solomon Islands National Assessment Report	Unclear	Report + stakeholer	Reviewed current national status and challenges and barriers to SD and green economy.
Southern Asia	Bangladesh	2012	Bangladesh Rio+20: National Report on Sustainable Development	Unclear	Plan developed by national committee	Protection of the environment within the constitution. Set targets for development in a document called Vision 2021. Described a variety of challenges. Reviewed policy development.
	Bhutan	2012	Bhutan: In Pursuit of Sustainable Develpoment	Unclear	Desk review	Developed the happiness index. Seeks to be the first all organic country by 2020. Strong focus on sustainability in all areas of planning.
	Nepal	2011	Nepal Status Paper United Nations Conference on Sustainable Development 2012 (Rio+20) Synopsis	UNDP, ICIMOD (Internat ional center for Integrat ed Mountai n Develop ment)	Desk review + stakeholder work	Reviewed a number of policies, and provided a variety of internal benchmarking statistics. Suggests special needs for mountain nations.
	Sri Lanka	2012	Sri Lanka's Middle Path to Sustainable Development through 'Mahinda Chintana – Vision for the Future'	UNDP	Desk review + stakeholder work	Establishment of a national council for sustainable development and a national action plan for sustainable development. The plan has a green reporting system for industries. A number of national rules and international agreements.
South- Eastern Asia	Cambodia	2012	The Cambodian Government's Achievements and Future Direction in Sustainable Development	UNDESA, UNDP	Document review and stakeholder meetings	Member GGGI, Uses Cambodian Millennium Development Goals (CMDG) which are the same as the MDGs but with one additional goal that focuses on the remnants of war; other mixed indicators. Possible carbon sinks. Provides a list of agreements that it abides by as related to sustainability.
	Lao People's Democratic Republic	2012	National Rio+20 Report for Lao PDR		Document review and stakeholder work.	Provides a summary of key national initiatives with internal goals and a summary of key internal constraints and challenges.
	Philippines	Unclear (2012?)	Assessment of the Philippine Agenda 21, The Prospects for a Green Economy, and the Institutional Framework for Sustainable Development	Unclear	Desk document	Development of Philippines Agenda 21 planning document; variety of international agreements for external benchmarking. However, conditions have worsened since Agenda 21 was developed in 1996. Numerous measurable outcomes.
	Timor-Leste	2012	Sustainable Development in Timor Leste	Unclear	Report + stakeholder input	Sustainable development was part of Timor-Leste's nation building initiatives. Seeks to develop a new national organization focused on SD.

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						MDG's and international agreements main benchmarking. Provided extensive list of activities.
Sub- Saharan Africa	Benin	2002	Document D'information Sur Le Developpmement Durable Au Benin	UNDESA and UNDP	Document review, interviews, stakeholder input	Used a variety of indicators to measure sustainability including governmental approaches, water, waste, habitat, agriculture, biodiversity, production, energy, education, research, healthcare, tourism, agenda 21 benchmarks
	Botswana	2012	Botswana National Report for the United Nations Conference on Sustainable Development (Rio+20)	Unclear	Document review	Green economy initiatives: tourism; natural resources; low-carbon energy, infrastructure and transport; sustainable food, water, and sanitation; biodiversity and environmental justice; environmental accounting; policy reform. Measurement of MDG; housing; employment; water; energy; protected areas; tourist data; and, agricultural data.
	Burkina Faso	2012	Rapport National Sur le Developpement Durable Au Burkina Faso 1992-2012	Unclear	Committees efforts, document evaluation, stakeholder input	Variety of national goals evaluated related to population, development, equity, environment, and economic development.
	Burundi	2012	Elabore dans le Cadre du Processus de Preparation de la conference des Nations Unies sur le Developpement Durable au Burundi	Unclear	Status report/synthesis of documents	A general review of a variety of sustainability themes of importance to the nation. Some internal benchmarking data presented.
	Cameroon	2012	Preparation Nationale a La Conference des Nations Unies sur le Developpement Durable (Rio+20) Rapport du Cameroun		Status report/synthesis of documents	Key areas of interest to Camaroon: agriculture, forestry, fisheries, biodiversity, energy, transportation, health, waste management, water, and education. Reference to Agenda 21 and Johannesburg qualitative and quantitative benchmarking as well as regional and national evaluations.
	Cape Verde	2012	Cabo Verde no Contexto do Desenvolvimento Sustentável	Unclear	Status report/synthesis of documents	Cape Verde uses a number of internal measuring systems and has a number of internal planning documents that support benchmarking and evaluation of efforts in economic growth and poverty reduction, food and agriculture, and tourism. Assessment of efforts on the MDG is also presented.
	Central African Republic	2012	Rapport National Sur Le Developpement Durable République Centrafricaine	Unclear	Review of reports, input from a variety of stakeholders, workshops	Economy impacted by armed conflict since 1992 with recovery after 2004. Use of many internal benchmarking systems for economic development, environment, and social factors. Report stresses need for policies and strategies for: conservation and management of natural resources for sustainable development; the preservation and management of ecosystems; the fight against the degradation of forests and lands; protection of the atmosphere and water management in order to improve the quality of the environment and promote sustainable socio-economic development; green energy development; tourism; and gender equity.

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	Comoros	Unclear (2012?)	Preparation Nationale de la Conference des Nation Unies Developpement Durable Comoros	Unclear	Status report/synthesis of documents	Benchmark against internal indicators, Human Development Indicators; Identified several constraints for sustainable development; constraints and challenges of the national framework for Sustainable Development, including the following. The weakness of communication and exchange of information between national and local institutions; The lack of monitoring and implementation of the recommendations of international conventions; The lack of human resources (Specialized) and financial institutions responsible for the implementation of conventions; Limited access to new technologies; Information and Communication Technology (ICT); The lack of technical capacity of associations and NGOs involved in sustainable development actions (Climate change, desertification, restoration and conservation of soil management, coastal management, waste). Comoros also highlights emerging issues: terrorism, violence, emerging diseases, and HIV/AIDS.
	Congo	2012	Rapport Diagnostic de La Republique du Congo	Unclear	Status report/ synthesis of documents/comm ittee/stakeholder	The report reviews conventions the nation is part of and summarizes key areas. The report does not provide quantitative summaries. The report also notes the significance of the various continental agreements.
	Congo, The Democratic Republic Of The	2012	Rapport National Synthese Sur Le Developpement Durable République Centrafricaine	Unclear	Status report/synthesis of documents	A key challenge has been conflict and limited funding for the environment. However, the nation has made a major commitment to forest protection. MGD, Agenda 21
	Cote D'Ivoire	Unclear (2012?)	National du Developpement Durable Cote D'Ivoire dans la Perspective de Rio+20	Unclear	Literature review/synthesis of documents/intervi ews	Used Agenda 21 to benchmark, signatory on a number of international agreements. Identified 7 strategic directions in 2011 for consideration by the government: 1) information, awareness, participation and governance; 2) education and training; 3) sustainable development; 4) cities, local authorities and sustainable land management; 5) regulatory and institutional environment; 6) represent the nation in a green economy in the world; 7) Regional and international cooperation. Also developed strategic priorities for UNCSD: 1) Information education, participation; 2) Education for sustainable development training and research; 3) State forefront on sustainable development; 4) Cities, local authorities, and sustainability planning; 5) Policy, institutional, and legal development; 6) Development of a green economy
	Djibouti	Unclear (2012)	Rapport National Sur Le Developpement Durable Rio+20 Republique de Djibouti	UNDESA, UNDP, Ministry of Housing, Town Planning , Environ ment	Status report/synthesis of documents	Benchmarking: National Initiative Social Development, the Strategic Framework for the Fight against Poverty, the Millennium Development Goals, the Plan economic and social development 2001-2010 and other sectoral documents. Challenge is improving poverty situation.

Region	Country	Publication	Title	Funding	Methodology	Description
	,	Date		Agency		
				and Spatial		
				Planning		
	Equatorial Guinea	2012	Informe Nacional de Guinea Ecuatorial para la Conferencia de las Naciones Unidas sobre Desarrollo Sostenible, Rio+20	Unclear	Status report/synthesis of documents	Benchmarking: national policies, MDG, and Agenda 21. Several other agreements in place which require reporting.
	Ethiopia	2012	National Report of Ethiopia	Unclear	Steering committee, stakeholders, document review.	Ethiopia has a growth and transformation plan in place to address a number of sustainability initiatives. "The Sustainable Development Goals should not serve as substitutes but rather complement the ICPD Programme of Action and the MDGs"
	Gambia	2012	Republic of the Gambia National Report 2012	Unclear		Gambia developed a benchmarking system that encompasses a variety of indicators (including MDG): PAGE Program for Accelerated Growth and Employment
	Ghana	2012	National Assessment Report on Achievement of Sustainable Development Goals and Targets for Rio+20 Conference	UNDP	Development of indicators, compilation of report, stakeholder input	Used nationally selected sustainability indicators including World Bank World Development Indicators, MDG, Overseas Development Institute's Millennium Report Card, and 2010 Environmental Performance Index of Yale University.
	Guinea-Bissau	2012	Cimeira Mundial Sobre O Desenvolvimento Sustentavel Rio+20	UNDP, UNDESA	Steering committee, stakeholders, document review	Focus on achieving goals articulated in Agenda 21.
	Kenya	2012	Sustainable Development in Kenya: Stocktaking in the run up to Rio+20	Unclear	Steering committee, stakeholders, document review	New national plan: Kenya Vision 2030 aimed at creating a globally competitive and prosperous country with a high quality of life by 2030 with MDG met by 2015. Wide variety of benchmarking, international agreements, and policy initiatives.
	Liberia	2012	Republic of Liberia 2012 National Sustainable Development Report	UNDP UNDESA	Steering committee, stakeholders, document review	New national plan: Liberia Rising, Vision 2030 seeks to develop the country into a middle income nation by 2030 prioritizes green and environmental initiatives.
	Madagascar	2012	Madagascar Rapport National	UNDP UNDESA	Steering committee, stakeholders, document review.	Strong focus on Agenda 21
	Malawi	2012	Malawi's Progress towards Achieving Sustainable Development Goals 20 Years Since the 1992 Earth Summit in Rio	UNDP	Steering committee, stakeholders, document review	Developed Malawi Growth and Development Strategy with key priority areas: Agriculture and Food Security, Transport Infrastructure &Nsanje World Inland Port, Green-Belt Irrigation &Water Development, Energy, Mining &Industrial Development, and Integrated Rural Development
	Mali	2012	Rapport National sur le Developpement Durable au Mali Dans la Perspective de Rio+20	Unclear	Document review	Strong concern for climate change due to unique vulnerabilities. Benchmark against MGD and a variety of other internal and external targets. Little local work on Agenda 21 targets.

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	Mauritania		Rapport National sur le Developpement Durable 2012			Highlighted a variety of environmental and social challenges. However, the country recently created national organizations focused on sustainable development.					
	Mauritius	2012	Republic of Maritius National Synthesis Report	Unclear	Document review and stakeholder meetings	Plan: Maurice lle Durable: long term vision for sustainable development in five themes: energy, education, environment, equity, and employment. Also suggests the MDG be modified for SIDS					
	Mozambique	2012	National Report to the United Nations Conference on Sustainable Development (Rio+20)	Unclear	Gathering of information, stakeholder meetings and expert meetings, presentation to expert council	Some basic indicators such as GDP presented; strong focus on details of current situation; developed an Environmental Strategy for Sustainable Development focused on: 1) protection and management of ecosystems and biodiversity; 2) good management of the growing urban environment; 3) control of atmospheric pollution and climate change; and 4) population and welfare.					
	Niger	2012	Rapport National Conférence de Rio+20	Unclear	Document review and stakeholder meetings	Agenda 21, MDG, and a number of other initiatives/agreements. Stressed the role of regional efforts and cooperation.					
	Rwanda	2012	National Report for Rwanda	UNDESA	Document review and stakeholder meetings	Notes lack of baseline data and data collection. Has developed indicators through its economic development and poverty reduction strategy.					
	Senegal	2012	Conference des Nations Unies Sur le Developpement Durable (Rio+20) Rapport National du Senegal	UNDESA, UNDP	Document review, interviews, and stakeholder meetings	Agenda 21, MDG. Has a national commission for sustainable development, but it is unfunded					
	Seychelles	2012	National Report Republic of Seychelles	Unclear	Document review, interviews, and stakeholder meetings	Constitution states that sustainable economic and social developments are significant as well as judicious use and management of resources. MDG. Developed a "Seychelles Sustainable Development Outlook" chart that ranks indicators as positive, welcome, or warning.					
	Tanzania	2012	National Report for the United Nations Conference on Sustainable Development, Rio+20	UNDP	Document review, interviews, and stakeholder meetings	Developed a number of institutions that address sustainable development; many unique recommendations. One that stands out: There is need to promote programmatic cooperation and coordination in the UN system including pooling of resources; establishing a common monitoring and evaluation scheme; enhancing cooperation in capacity building and technical assistance; and facilitating the exchange of relevant information between the technical and scientific bodies. Developed national indicators benchmarking system.					
	Togo	2011	Preparation Nationale de la Conference des Nations Unies sur le Developpement Durable (rio+20) Rapport de Synthese	Unclear	Document review, interviews, and stakeholder meetings	Developed a series of sustainable development indicators: 1. Indicators of Poverty (Poverty Index, Gini index); 2. Comprehensive indicators (HDI MDGs); 3. Economic indicators (economic growth, trade); 4. Social indicators unemployment, life expectancy); 5. Environmental Indicators Index (Environmental Sustainability (FDI), Ecological Footprint); 6. Results of Public Opinion Polls. 7. Results Indicators (correlation between the					

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				3 ,		indicators of change economic, social, and environmental); 8. Institutional indicators (use of integrated strategies, establishment of coordination mechanisms); 9. Engagement indicators (fiscal or other support for programs integrated sustainable development); and, 10. Indicators related to information (development of analytical tools and assessment, collection of data, investment in research)				
	Uganda	2012	National Report on Progress on the Implementation of the Rio Commitments on Sustainable Development in Uganda	UNDP, UNDESA	Document review, interviews, and stakeholder meetings	Agenda 21, MDG; has developed Vision 2040 targets using their own indicators, some of which overlap with MDG and others.				
	Zambia	2012	The National Report Zambia	Unclear	Document review, interviews, and stakeholder meetings	MDG's and Agenda 21 progress noted. Absence of an appropriate sustainable development framework is noted as is poor sustainable development coordination. The report also notes that there is an inadequacy of indicators to measure sustainability and green economy.				
	Zimbabwe	2012	The Future We Want: A Report by the Government of Zimbabwe to the United Nations Conference on Sustainable Development		Document review, interviews, and stakeholder meetings	Developed their own indicators/goals; Highlighted development projects;, and, Strongly embraced the green economy initiative				
Western Asia	Lebanan	2012	Sustainable Development in Lebanon: Status and Vision	UNDP	Report + stakeholder	Variety of internal statistics reviewed, Yale Environmental Index; Reviewed a number of national policies and initiatives				
	Syria	2012	National Report of the Syrian Arab Republic to the United Nations Conference on Sustainable Development (RIO+20), June 2012	Unclear	Report + stakeholder	Reviewed a number of national initiatives and international agreements. Highlighted particular problems associated with Syria's unique geographic setting.				
	Yemen	Could not red	Could not read.							