United Nations Conference on Sustainable Development (Rio+20)

National Report of Ethiopia

Environmental Protection Authority

2012

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Federal Democratic Republic of Ethiopia

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UNDESA

RIO+20 United Nations Conference on Sustainable Development

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Foreword

The Federal Democratic Republic of Ethiopia submits this national report in the hope that it will contribute to sharing of experiences among participants of the United Nations Conference on Sustainable Development, at the Rio+20 Conference scheduled to be held in Rio de Janeiro, Brazil in June 2012. Ethiopia has unveiled its sustainable and integrated development planning documents, the 5-year Growth and Transformation Plan and the Climate Resilient Green Economy Strategy that shaped the content of this report.

The major thrust of the report is a critical assessment of sustainable development efforts and achievements during the past two decades and provides a brief account of Ethiopia's planned path of green economy development. We believe Ethiopia's experience in integrated development planning and the green economy path of development that it is committed to pursue shall contribute to the outcome of the UNCSD.

Federal Democratic Republic of Ethiopia
Environment Protection Authority

Acronyms and Abbreviations

ADLI	Agriculture Development Led Industrialization
AGP	Agricultural Growth Project
ATA	Agricultural Transformation Agency
BAU	Business as Usual
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CO2e	Carbon dioxide equivalent
COP	Conference of Parties
CRGE	Climate Resilient Green Economy
EFAP	Ethiopian Forestry Action Plan
EIAR	Ethiopian Institute of Agricultural Research
EPA	Environmental Protection Authority
EPCO	Ethiopian Electric Power Corporation
GA	General Assembly
GDP	Gross Domestic Product
GERDP	Grand Ethiopia Renaissance Dam Project
GHG	Green House Gases
GoE	Government of Ethiopia
GTP	Growth and Transformation Plan
GWh	Giga Watt hour
HDI	Human Development Index
HPR	House of Peoples Representatives
IBC	Institute of Biodiversity Conservation
IBRD	International Bank for Reconstruction and Development
ICPD	International Conference on Population and Development
IEG	International Environment Governance
IFAD	International Fund for Agricultural Development
LDCs	Least Developed Countries
MDGs	Millennium Development Goals
mMSRr	Mechanism to Motivating, Supporting and Rewarding Results
MoFED	Ministry of Finance and Economic Development
MRV	Monitoring, Reporting and Verification
MW	Mega watt
NAPA	National Adaptation Programme of Action

NBSAP	National Biodiversity Strategy and Action Plan
NCS	National Conservation Strategy
NGO	Non –Government Organization
NSC	National Steering Committee
OFWE	Oromia Forest and Wildlife Enterprise
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PFM	Participatory Forest Management
PMO	Prime Minister's Office
POPs	Persistent Organic Pollutants
PRSP	Poverty Reduction Strategy Paper
REDD+	Reducing Emissions from Deforestation and Forest Degradation
R-PP	REDD Preparation Proposal
SDPASE	Sustainable Development of Protected Area System of Ethiopia
SDPRP	Sustainable Development and Poverty Reduction Program
SLMP	Sustainable Land Management Program
SREP	Scaling-up Renewable Energy Program
TNA	Technology Needs Assessment
TVET	Technical and Vocational Education and Training
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Conventions to Combat Desertification
UNCLOS	United Nations Convention on the Law of the Sea
UNCSD	United Nations Conference on sustainable Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
WBISP	Woody Biomass Inventory and Strategic Planning Project
WSSD	World Summit on Sustainable Development

United Nations Conference on Sustainable Development, Rio+20
National Report of Ethiopia

Executive Summary

The United Nations General Assembly has called (in GA 64/236) for a United Nations Conference on Sustainable Development (UNCSD) in 2012. The objectives of the Conference is to secure renewed political commitment for sustainable development, assess the progress to date and the remaining gaps in the implementation of sustainable development, and address new and emerging challenges. The themes of the UNCSD are (a) a green economy in the context of sustainable development and poverty eradication; and (b) institutional framework for sustainable development

This national report is prepared on the basis of the guidance note on supporting national preparations for the United Nations Conference for Sustainable Development (UNCSD), issued by the Environment Protection Authority (EPA), the United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Development Programme (UNDP), and through a national process that was guided by a Steering Group and consultations with relevant sectors and NGOs.

The 1992 Rio Conference and decision to follow sustainable development path coincided with a new era of social-economic and political changes in Ethiopia. After years of management under command economy, protracted civil war and recurring drought, the Transitional Government of Ethiopia was formed in 1991 and began a broad spectrum of reform measures to address both the immediate need of economic recovery and reconstruction to jump start the economy, while addressing the long-term structural problems of underdevelopment.

Right after the 1992 Rio Conference Ethiopia finalized a National Conservation Strategy also referred to as Conservation Strategy of Ethiopia (CSE)); was adopted in 1993 a Population Policy with a goal to harmonize the rate of population growth and the capacity of the country for the development and rational utilization of natural resources to the end that the level of welfare of the population is maximized over time, which was reinforced later on by the Government's commitment to the ICPD Programme of Action adopted in 1994, whose objectives on the interrelationships between population, sustained economic growth and sustainable development were to ensure that population, environmental and poverty eradication factors are integrated in sustainable development policies; plans and programmes, and to reduce both unsustainable consumption and production patterns as well as negative impacts of demographic factors on the environment in order to meet the needs of current generations without compromising the ability of future generation to meet their own needs; followed by an Environment Policy in 1997 that again encapsulated sustainable development principles. Since 1992 Ethiopia has instituted a series of medium to long term plans and focused policies such as the Agriculture Development Led

Industrialization (ADLI), Poverty Reduction Strategy Paper (PRSP), a Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) 2005/6 - 2009/10/. In 2010 Ethiopia unveiled a Growth and Transformation Plan (GTP) for the period 2010/11-2014/15. At the same time a Climate Resilient Green Economy Strategy (CRGE) was developed in 2011 and launched at the 17th Conference of the Parties to the United Nations Framework Convention on Climate Change in Durban, in 2011.

Understanding and internalization of the concepts of sustainable development has substantially improved as witnessed by the refinement of successive plans over the years, initially focusing on social and economic development and improving integration of the environment as the economy began to grow faster.

Among all of the medium and long-term plans prepared in Ethiopia, the GTP is the most ambitious and is a plan that has the hallmark of an integrated plan incorporating sustainable development principles and objectives.

The GTP envisages that the country's GDP per capita would grow from 378 USD in 2010 to 1271 USD in 2025. Besides, the CRGE strategy projects that the contribution of agriculture will diminish from 42% to 29%, indicating migration of jobs from the agriculture sector to industry and services (MoFED, GTP, 2010). The GTP explicitly recognizes that environment is a vital and important pillar of sustainable development, and states that *"building a 'Green Economy' and ongoing implementation of environmental laws are among the key strategic directions to be pursued during the plan period" (GTP,2010,p.119).* Appreciating the strong interrelationship between development and population, the need to give serious attention to population issues in the process of development planning so as to improve the socio-economic development of the Country is also duly acknowledged in the GTP.

Ethiopia recognizes that sustained political will, leadership and commitment by all stakeholders, are required to realize the 5-year GTP, while integrating implementation the CRGE within all key sectoral GTP. The country also expects the international community to support its exemplary initiative of a green economy agenda that is based on a well thought out strategy. The success of Ethiopia's CRGE will have far reaching impact and positive influence among developing nations.

The GTP recognizes that sustainable development in Ethiopia can only be achieved if development is pursued in the social, economic and environmental areas in a balanced manner and ensuring that benefits accrued are equitably shared among the citizens of the country. Ethiopia aims to achieve middle-income economy as of 2020-2023 while developing a green economy (FDRE, CRGE, 2011). This is the vision set in Ethiopia's Growth and Transformation Plan (GTP) 2010/11-2014/15, and reinforced by the CRGE. The main agenda of the GTP is the eradication of poverty and transformation.

The total fertility rate was 6.7 children per woman of reproductive age in 1994, and it declined to 5.9 in 2000; 5.4 in 2005, and 4.8 in 2011. An effective countrywide

population information and education programme has been mounted for addressing issues pertaining to large family size and its relationships with human welfare and environmental security. Furthermore, Population and Family Life Education (POP/FLE) has been integrated into the curricula of elementary and secondary schools, particularly in subjects such as science, geography, biology, civic education and other courses. In general, the trend of population growth has shown a decline in the period.

Ethiopia has identified six priority areas among the reproductive health components of the ICPD Programme of Action. There are significant achievements over the last decade in the areas of: family planning; maternal and newborn health; reproductive health of young Sustainable Development Goals people; HIV/AIDS and STIs; harmful traditional practices that relate to the social and cultural factors that affect women's reproductive health; and other reproductive health issues. The percent of women aged 15-49 who received antenatal services has increased from 17 to 34 percent during 2000-2011. Infant mortality declined from 97 deaths in 2000 to 59 deaths per 1,000 live births in 2011. Similarly, under-five mortality decreased from 166 deaths in 2000 to 88 deaths per 1,000 live births in 2011.

Gender equality and women empowerment have also shown progress. Moreover, youth empowerment and adolescent sexual and reproductive health is also top on the agenda, and various interventions and plans are in place.

In 1995/96 the poverty head count ratio was 45.5% and decreased to 29.2% in 2009/10. Ethiopia aims to achieve the Millennium Development Goals (MDGs) of halving extreme poverty and hunger by 2014/15 (MoFED, GTP, 2010).

Life expectancy at birth was declining in the 1980s, and dropped from sharply from 52 years in 1984 to 46.4 years in 1991, probably because of the HIV/AIDS pandemic, civil war and recurrent famine (Forum for the Environment, 2009.). It has improved over the last two decades, increasing from 46.4 years in 1991 to 59.3 for 2011, according the UNDP Human Development Report of 2011.

In the 1980s and early 1990s, the Ethiopian economy was on a down-ward trend, with an average GDP growth of 2.3% and per capita GDP growth of -0.4%. With economic reforms following social and political transformations, the 1990s and early 2000s have registered positive growth, with an average real total and per capita GDP of 3.7% and 0.7% per annum, respectively (MoFED 2002). The country began implementation of the integrated development plan in 2002, the first being the Sustainable Development and Poverty Reduction Program (SDPRP), which covered the three years, 2002/03-2004/05. During SDPRP, the country began to register better economic performance, with average GDP growth of 6.7% per year (and an average annual per capita income growth rate of 3.65%). The 2nd and 3rd years of SDPRP period actually registered double digit economic growth, with annual rates of 11.9% and 10.6%, respectively. Since then, the country has maintained high growth rates. (MoFED 2006). In 2012, the Ethiopian economy is estimated to be the third fastest growing economy in the world,

and the first fastest growing economy in Africa (CRGE, 2011). The country has registered such encouraging economic performances through formulation of policies and implementation of programs and putting in place appropriate institutional arrangements.

Ethiopia has sustained a record of strong economic growth during the last decade, contributing significantly to the sustainable development agenda: GDP has nearly tripled since 1992 with a corresponding reduction in head count poverty from 56 percent in 1992 to 29.5 percent in 2011 (MoFED 2012).

The International Monetary Fund forecasts for Ethiopia a real gross domestic product (GDP) growth of more than 8% per annum over the next five years. Foreign investment has increased from less than820 million USD in 2007/08 to more than 2 billion USD in the first half of the 2010/11 fiscal year. (CRGE, 2011)

With regard to the environmental pillar, Ethiopia has developed and implemented a range of legal, policy and institutional frameworks on environment, water, forests, climate change, and biodiversity, as enumerated in Section 3.2 of this report. The Environment Protection Authority was established in 1994. The Institute of Biodiversity and the Ethiopian Wildlife Conservation Authority have also been strengthened with more power and mandate in conservation of biodiversity and sustainable use.

Ethiopia has submitted the First National Communication in 2001 and the National Adaptation Program of Action (NAPA) to UNFCCC in 2007, and conducted the Technological Needs Assessment (TNA) in 2008. The country has also completed the preparation of a new work program for action, the "Ethiopian Program of Adaptation to Climate Change (EPACC), that updated the 2007 NAPA. It has also completed developing an overarching framework and national strategy, the "Climate Resilient Green Economy" (CRGE). The **Green Economy** Strategy has been completed for seven sectors that offer the highest greenhouse gas abatement potential: Power Supply; Buildings and Green Cities; Forestry (REDD+); Agricultural/Soil-based Emissions; Livestock; Transport; and Industry. Implementation of the CRGE strategy requires investment of $150 billion up to 2030.(CRGE, 2011).

Ethiopia faces the following challenges that the country plansto address in the medium and long term timeframe:

The greatest challenge of all is posed by climate change. Unfortunately this challenge cannot be addressed by the effort of one country alone. Although Ethiopia is poised to do whatever is necessary and within its capacity through its CRGE strategy, climate change requires global response. The major challenges in different sectors include the following:

Social

- Population growth, expected to be over 120 million in 2030
- Reduced quality of education that transpires due to the rapid growth of the sector

- Cultural barriers to achieve desired goals in girls education
- Urban squalor and supply of housing which is not commensurate with the urban population growth.
- Scattered rural settlement
- Slow progress in the provision of sanitation services
- Unemployment in urban areas

Economic

- Increasing agricultural production while attaining green economy
- Shortage of skilled human resources for the planned industrial development
- Meeting the growing needs of the urban population
- Lack of infrastructure in remote areas
- Inflation

Environment

- Pollution in industrial and urban areas
- Land degradation, fragmentation and impacts on rural-urban migration
- Lack of skilled human resources in planning and implementation of green economy strategy

Finance

- Slow and declining flow of new and additional financial resources from developed countries to developing countries.

Opportunities

The last two decades have witnessed tremendous growth in infrastructure development in Ethiopia. This will form the basis for rapid socioeconomic growth and coupled with environment protection, progress towards sustainable development shall be enhanced.

Natural resources of the country such as water, geothermal, solar and wind resources offer opportunities for developing clean energy development needed to meet demand of the expected rapid economic growth.

Political commitment and leadership that is provided by the Prime Minister of Ethiopia at the national, regional and international levels shall promote and enhance the implementation of the CRGE strategy that is a cornerstone for sustainable development in Ethiopia.

Ethiopia has taken a bold and ambitious decision to set its vision to achieve middle-income status by 2025 while developing a green economy. Ethiopia's Climate-Resilient Green Economy (CRGE) vision and strategy emanated from the Constitution of Ethiopia and the Environment Policy of Ethiopia approved in 1994 and 1997 respectively.

The CRGE strategy focuses on four pillars that will support Ethiopia's developing green economy:

1. Adoption of agricultural and land use efficiency measures

2. Increased GHG sequestration in forestry, i.e., protecting and re-establishing forests for their economic and ecosystem services including carbon stocks

3. Deployment of renewable and clean power generation

4. Use of appropriate advanced technologies in industry, transport, and buildings.

In general four initiatives for fast-track implementation have been selected under the CRGE: (i) exploiting Ethiopia's vast hydropower potential; (ii) large-scale promotion of advanced rural cooking technologies; (iii) efficiency improvements to the livestock value chain; and (iv) Reducing Emissions from Deforestation and Forest Degradation (REDD).

The government has also created institutional arrangements for CRGE strategy implementation. A CRGE facility has been put in place within the Ministry of Finance and Economic Development. The facility is responsible for resources mobilization and disbursement. The EPA shall develop a system for monitoring, reporting and verification. The UNDP, as interim trustee, is responsible to manage the CRGE fund and/ resources. On the other hand, each sector shall have an environmental unit, and are tasked with preparing their respective strategy for resilience.

Ethiopia fully supports the African Consensus Statement with regards to IEG issued at the Africa Regional Preparatory Conference for the United Nations Conference on Sustainable Development (Rio+20) Addis Ababa, Ethiopia 20-25 October 2011, including the identified characteristics of the strengthened UNEP.

In line with the African Consensus Statement, the following need to be emphasized:

- The United Nations Environmental Programme (UNEP) should be strengthened and transformed into an international specialized institution for the environment based in Nairobi, Kenya, with a view to fully address Africa's needs in matters of the environment, sustainable development and climate change,

- The strengthened UN environment organization should have increased authority to bring coordination and coherence to the range of multilateral environmental agreements, by promoting synergies while respecting the legal autonomy of the conferences of the parties to those agreements.

- The strengthened UN environment organization should have the capacity to provide technical and financial support to developing countries, such as Ethiopia that have taken bold steps in climate resilient green economy.

Ethiopia also supports the draft Rio+20 outcome document with emphasis on the following aspects:

1. For a green economy to succeed, finance, investment, technology transfer and capacity building are all crucial. In our view, the outcome document should address these issues in an unequivocal manner. Ethiopia has launched its climate resilient green economy

strategy along with a comprehensive institutional framework and CRGE facility that is designed to be a central funding mechanism for all CRGE programs and projects. The outcome document should contain statements that encourage and support the CRGE initiative put in place by Ethiopia and other similar climate related initiatives. Specific attention should be given to the provision of additional and scaled up sources of financing to developing countries.

2. The means of implementation should incorporate key deliverables that would help developing countries, particularly Africa and LDCs to make important strides in their development endeavors.

3. The Sustainable Development Goals should not serve as substitutes but rather complement the ICPD Programme of Action and the MDGs, which are not only yet to be met but need to be strongly stated in the outcome document along with post 2015 development agenda as important tools to address issues of poverty, hunger, infant as well as maternal mortality in many of the poor nations of the world.

4. Ethiopia urges the Conference to adopt concrete measures, supported by adequate means of implementation and the international community to accelerate and increase support to Africa, to enable it to enhance implementation of its sustainable development commitment.

5. Ethiopia believes that sustainable land-use in agriculture and hydropower for sustainable energy development are cornerstones of the green economy for sustainable development and poverty eradication.

6. Ethiopia stands by the statement in the draft outcome document that states, “We reiterate that the green economy should not be used as a trade barrier or to impose conditionalities on developing countries; neither should it be used by developed countries as a pretext for not fulfilling their pledges and commitments towards developing countries. The green economy should be based on the Rio principles, including the principle of common but differentiated responsibilities, and respect the policy space of each country.”

7. Ethiopia has embraced a sustainable energy development goal and has embarked on ambitious and grand renewable energy projects that are in harmony with the UN Secretary General’s global initiative of “sustainable energy for all”. The Rio+20 outcome document needs to come up with concrete strategies and an action plan to operationalize the “sustainable energy for all” initiative of the UN Secretary General.

1. Background

During June 20-22 2012, the UN Conference on Sustainable Development will take place in Rio de Janeiro Brazil, 20 years since the 1992 Rio Conference on Environment and Sustainable Development that charted an agenda for sustainable development for the 21st century and 40 years after the 1972 Stockholm World Summit on Sustainable Development.

In June 1992, the first UN Conference on Environment and Development (UNCED) was held in Rio de Janeiro and adopted an agenda for environment and development in the 21st Century. Agenda 21: A Programme of Action for Sustainable Development contains the Rio Declaration on Environment and Development, which recognizes each nation's right to pursue social and economic progress and assigned to States the responsibility of adopting a model of sustainable development; and, the Statement of Forest Principles. Agreements were also reached on the Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC). UNCED for the first time mobilized the Major Groups and legitimized their participation in the sustainable development process. Agenda 21 further reaffirmed that sustainable development was delimited by the integration of the economic, social and environmental pillars.

Ethiopia has actively participated in the 1972 United Nations Conference on the Human Environment (UNCHE), often referred to as the Stockholm Conference, the Mar del Plata World Water Conference held in Argentina in 1977, the 1992 United Nations Conference on Environment and Development, the International Conference on Population and Development (ICPD) in 1994 held in Cairo, and the World Summit on Sustainable Development convened in Johannesburg, South Africa in 2002. These global initiatives have influenced national policies and increased public awareness with regards to sustainable development.

The United Nations General Assembly has called (in GA 64/236) for a UN Conference on Sustainable Development (UNCSD) in 2012. The objectives of the Conference are to secure renewed political commitment for sustainable development, assess the progress to date and the remaining gaps in the implementation of sustainable development, and address new and emerging challenges. The themes of the UNCSD are (a) a green economy in the context of sustainable development and poverty eradication; and (b) institutional framework for sustainable development

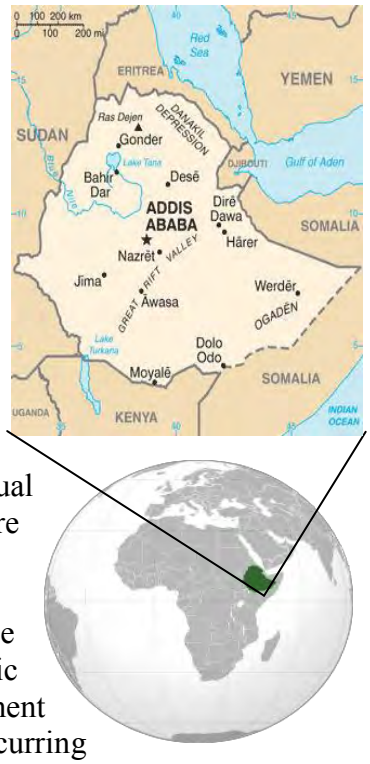
This national report is prepared on the basis of the guidance note on supporting national preparations for the United Nations Conference for Sustainable Development (UNCSD), issued by the Environmental Protection Authority (EPA), the United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Development Programme (UNDP).

The approach used in the preparation of the report is based on desk study/literature review, limited face to face interview with authorities in government institutions, discussions

with the EPA, UNDP, and UNDESA representatives. Questionnaires were used to gather information on progress towards sustainable development from eight sectors but the purpose was not to perform statistical analysis and solely focused on acquiring information on performance of the selected sectors and their respective views on various aspects of sustainable development. The draft report was circulated to members of the steering group and other stakeholders and was discussed at a one day validation workshop in the presence of representatives from Environment Protection Authority, Ethiopian Development Research Institute, Addis Ababa University, Ministries of Agriculture, Industry, Urban Development and Construction, Water and Energy, Science and Technology, Mines, Women, Children and Youth, international organization: UNDP, the World Bank, World Food Program, FAO, WHO, and NGOs and the private sector including Forum for Environment, Christian Children Fund, Environment and Coffee Forest Forum, Horn of Africa Regional Environment Center, Chamber of Commerce and Green Vision plc. (See Annex 3: workshop proceedings)

Section 2 provides country background information; **Section 3** outlines the roles of political commitment and integrated planning in achieving sustainable development in Ethiopia, **Section 4** outlines the efforts exerted to achieve sustainable development in Ethiopia during the period 1992 to 2012, **Section 5** describes Ethiopia's Climate-Resilient Green Economy (CRGE) vision and strategy and the link between the CRGE and poverty eradication in Ethiopia, **Section 6** deliberates on the institutional framework for sustainable development put in place in Ethiopia, **Section 7** outlines Ethiopia's position on international environment governance and **Section 8** outlines Ethiopia's position on the Conference's main document entitled "The Future We Want".

2. Introduction



Ethiopia is a country of more than 1.1 million square kilometer, located in the Horn of Africa between approximately 4° and 15° north latitude and 32° and 49° east longitude. Ethiopia's base of natural resources is the foundation of any economic development, food security and other basic necessities of its people. Smallholder agriculture is the dominant sector that provides over 85 percent of the total employment and foreign exchange earnings and approximately 55 percent of the Gross Domestic Product (GDP). As of recently the industry and service sectors are taking more share of the GDP.

With more than 80 million inhabitants (2010), Ethiopia is the second-most populous nation in Africa after Nigeria. The average age of the population is 17 years. With an annual population growth of more than 2%, Ethiopia will have more than 120 million people by 2030 (FDRE, CRGE 2011,p.8).

The 1992 Rio Conference and decisions to follow sustainable development paths coincided with a new era of social-economic and political changes in Ethiopia. After years of management under a command economy, protracted civil war and recurring drought, the Transitional Government of Ethiopia was formed in 1991 and began a broad spectrum of reform measures to address both the immediate need of economic recovery and reconstruction to jump start the economy, while addressing the long-term structural problem of underdevelopment.

In 1992/93, the government began its first series of economic reform programs. The reform programs aimed at reorienting the economy from a command to market economy, rationalizing the role of the state and creating legal, institutional and policy environments to enhance private sector investment. Different sectoral policies, strategies and plans were developed and implemented in the 1990s. The country began implementation of integrated development plans, the first being the Poverty Reduction Strategy Program (PRSP) of 2002-2007 and began implementation of the first phase, the Sustainable Development and Poverty Reduction Program (SDPRP), which covered 2002/03-2004/05. SDPRP focused primarily on the economic and social development. The adoption of Agricultural Development Led Industrialization Strategy (ADLI) provided a long-term development framework for economic transformation.

The Environmental Policy of Ethiopia, was approved on April 2, 1997 by the Council of Ministers. The Environmental Policy of Ethiopia has embraced the concept of sustainable development. As its goal, the Environment Policy of Ethiopia states "to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs."

Ethiopia aims to achieve middle-income country status by 2025 while developing a green economy. This is the vision set in Ethiopia's Growth and Transformation Plan (GTP) 2010/11-2014/15 and the main agenda of the GTP is the eradication of poverty. .(FDRE, CRGE 2011,p.8)

The biggest killer disease in Africa is neither malaria nor HIV/Aids. Poverty is the biggest killer disease in our continent.

H.E Meles Zenawi, Prime Minster of the Federal Democratic Republic of Ethiopia, 2010.

3. Political Commitment, Integrated Planning and Sustainable Development in Ethiopia, 1992-2012.

3.1. Integrated Planning

Ethiopia has a long history and experience in integrated medium and long term planning starting with the three consecutive 5-year plans of the 1956-1962 period followed by the ten year plan of 1980-1990 period.

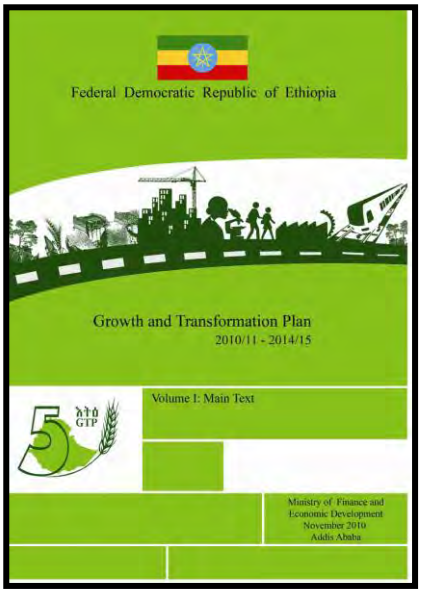


Figure 1: Two Landmark Sustainable Development Documents: The GTP and the CRGE Strategy

Right after the 1992 Rio Conference, Ethiopia finalized a National Conservation Strategy (NCS) followed by an environment policy in 1997 that encapsulated sustainable development principles. The country has also developed development programs in key economic and social sectors like roads, education and health in 1997, implementing them since then, in different phases. Since late 1990s and early 2000s, Ethiopia has instituted a series of medium term plans and focused policies such as the Agriculture Development Led Industrialization (ADLI), Poverty Reduction Strategy Paper (PRSP), a Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) 2005/6 - 2009/10/. In 2010, Ethiopia unveiled a Growth and Transformation Plan for the period 2010/11-2014/15. At the same time a Climate Resilient Green Economy Strategy was developed in 2011 and launched at the 17th UNFCCC in Durban, in 2011.

Understanding and internalization of the concepts of sustainable development has substantially improved as witnessed by the refinement of successive plans over the years. The 1990s and early 2000s development plans focused on the economic and social development pillars, and integration of the environment pillar began in during PRSP in 2002/03, as the country's economic began double digit

growth rate. PASDEP integrated the environment in the development plan with clear indicators and targets.

Among all of the medium and long term plans prepared in Ethiopia, the GTP is the most ambitious and has the hallmark of an integrated plan incorporating sustainable development principles and objectives.

The current development plan, GTP, envisages the country's GDP per capita to grow from 378 USD in 2010 to 1271 USD in 2025. It also projects that the contribution of agriculture will diminish from 42% to 29% indicating migration of jobs from the agriculture sector to industry and services, which are expected to contribute 32% and 39% of the GDP.(FDRE, CRGE, 2011). The GTP explicitly recognizes that environment is a vital and important pillar of sustainable development, and states that "*building a 'Green Economy' and ongoing implementation of environmental laws are among the key strategic directions to be pursued during the plan period"(GTP 2011; p.119).*

Ethiopia recognizes that sustained political will, leadership and commitment by all stakeholders, are required to realize the 5-year GTP and integrating the CRGE within all aspects of the GTP. The country also expects the international community to support its exemplary initiative of the green economy agenda that is based on a well thought out strategy. The success of Ethiopia's CRGE will have far reaching impact and positive influence among developing nations.

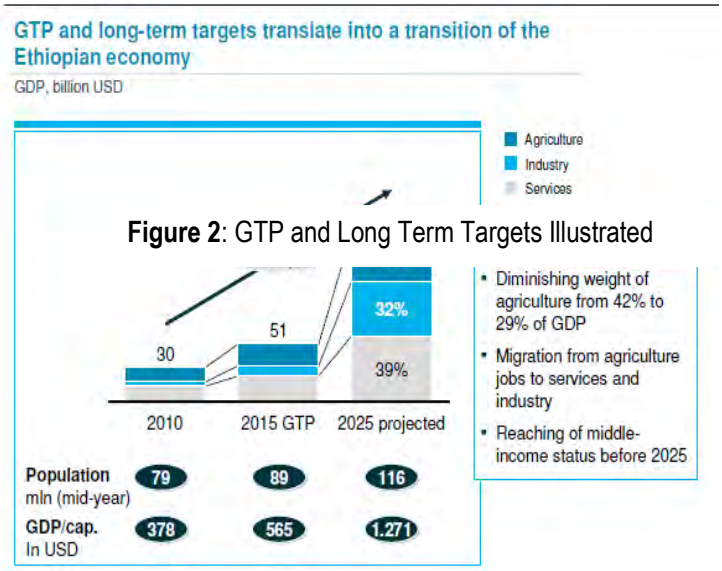


Figure 2: GTP and Long Term Targets Illustrated

Figure 2: GTP and Long Term Targets Illustrated (Source: FDRE 2011. CRGE. P 10)

The sustainable development efforts of the country are supported by a number of national policies, strategies and laws. Ethiopia also makes serious follow up in the implementation of multilateral agreements.

3.2. National policies, strategies and laws

Over the last two decades, the Ethiopian government has put in place a number of policies, strategies and laws that are designed to support sustainable development. The following list provides the policies, strategies and legal instruments that are closely related to the implementation of the sustainable development agenda:

1. The Conservation Strategy of Ethiopia (April 1997) including 9 Regional States' Conservation Strategies;
2. Agricultural Development Led Industrialization
3. The Environment Policy of Ethiopia (April 1997)
4. National Policy on Ethiopian Women (1993)
5. The National Population Policy of Ethiopia (April 1993);
6. The National Agricultural Research Policy and Strategy (October 1993);
7. The National Science and Technology Policy (December 1993); which is now replaced with the National Science and Technology Innovation Policy (2012)
8. The Health Policy (1993),
9. The Energy Policy (1993),
10. Education and Training Policy (1994)
11. The National Health, Science and Technology Policy (June 1994);
12. The National Drug Policy (September 1994);
13. The National Policy on Disaster Prevention and Management (1997);
14. The National Policy on Biodiversity Conservation and Research (1998);
15. The Ethiopian Water Resources Management Policy (1999); and
16. The National Fertilizer Policy (1999).
17. Rural Development Policy and Strategies (MoFED, 2003).
18. National Biodiversity Strategy and Action Plan (2005)
19. Radiation Protection: Proclamation No 571/2008
20. Development, Conservation and Utilization of Wildlife: Proclamation No 541/2007
21. Ethiopian Wildlife Development and Conservation Authority Establishment: Proclamation No 575/2008

22. Urban Planning: Proclamation No 574/2008
23. Forest Development, Conservation and Utilization Policy (2007)
24. Forest Development, Conservation and Utilization Proclamation No 542/2007
25. Environmental Impact Assessment Proclamation 299/2002
26. Pollution Control Proclamation 300/2002
27. Prevention of Industrial Pollution: Council of Ministers Regulation No 159/2008
28. Environmental Organs Establishment Proclamation;
29. Guidelines on Technology Selection and Transfer;
30. Guidelines on Enforcement and Compliance in Industrial Pollution;
31. Guidelines on the Procurement of Environment Friendly Goods;
32. Guidelines on Integrated Pollution Prevention and Control;
33. Guidelines on Pollution Release and Transfer Registry
34. Guidelines on Industrial Waste Handling and land filling and Managemen
35. Guidelines for undertaking sector specific Environmental Impact Assessment on development projects in 21 sectors.

3.3. International Agreements

Ethiopia is signatory to a number of multilateral agreements that have bearing on the sustainable development efforts of the country. Ethiopia has signed and/or ratified many of the international conventions and protocols and some of the important MEAs are briefly discussed below:

The United Nations Framework Convention on Climate Change (UNFCCC) (1994):

The UNFCCC was signed by Ethiopia during the 1992 Rio Conference in Brazil and was ratified on 31 May 1994 and Proclamation 97/1994 was put in place to provide a legal basis for its implementation.

UNDP has supported Ethiopia to prepare its First National Communication in Response to its Commitments to UNFCCC. As stated earlier Ethiopia has now embarked on an ambitious climate resilient green economy. Under the UNFCCC, the UNDP supported the preparation of the National Adaptation Programme of Action (NAPA), Coping with Drought and Climate Change and Climate Change Enabling Activity (additional financing for capacity building in priority areas), and Promoting Autonomous Adaptation at the community level in Ethiopia.

UNEP supported the conduct of the Climate Change Technology Needs Assessment (TNA) of Ethiopia. The IBRD also supported the Renewable Energy Project under the UNFCCC.

The Convention on Biological Diversity (1994);

Ethiopia ratified the Convention on 31 May1994 through Proclamation 98/1994.

The UNDP supported Ethiopia to prepare the National Biodiversity Strategy, Action Plan, and its participation in Clearing House Mechanism for CBD, including the preparation of the Country Report to the COP of UNCBD.

Under the UNCBD, the UNDP also supported a Dynamic Farmer-Based Approach to the Conservation of African Plant Genetic Resources, Sustainable Development of the Protected Area System and Mainstreaming Agro-biodiversity Conservation into the Farming Systems of Ethiopia. UNEP provided support for Capacity Building for Access and Benefit Sharing and Conservation and Sustainable Use of Medicinal Plants. IBRD also supported a project on the Conservation and Sustainable Use of Medicinal Plants.

The United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (known as the Desertification Convention – adopted in 1994)

The Government of Ethiopia signed the Convention to Combat Desertification (CCD) in October 1994 and ratified it in June 1997. As a first step in the implementation of the Convention, the Government of Ethiopia designated the Environmental Protection Authority (EPA) as the Focal Point to coordinate the implementation of the Convention in Ethiopia. To carry out this mandate, EPA established a National Steering Committee (NSC) for the formulation of a National Action Programme to Combat Desertification and Mitigate the Effects of Drought (in short, NAP) as well as formed a task force for the formulation of a National Desertification Fund (NDF).

Under the UNCCD, GEF partly financed two projects: "Country Program for Sustainable Land Management (ECPSLM)" and "Community-Based Integrated Natural Resources Management in Lake Tana Watershed" that are currently implemented through the IBRD and IFAD, respectively.

The Cartagena Protocol on Bio-safety to the Convention on Biological Diversity (known as the Bio-safety Protocol – adopted in 2000)

UNEP provided support for the Implementation of Cartagena Protocol on Bio-safety through a conduct of a study on Effective Implementation of National Bio-safety Framework. Ethiopia has now developed a bio-safety law and a number of directives to implement it.

The Stockholm Convention on Persistent Organic Pollutants (known as the Stockholm Convention– adopted in 2001)

UNIDO provided support for "Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs)"

Ethiopia has accepted, acceded and /or ratified the following MEAs at different times and with the provision of the necessary legal instruments: The Kyoto Protocol; The Vienna Convention for the protection of the ozone layer, including the Montreal Protocol on Ozone Depleting Substances (1994); The Basel Convention, its amendment and the Protocol to the Basel Convention on Liability and Compensation for Damage Resulting from the Transboundary Movements of Hazardous Wastes; Convention on the Ban of the Import into Africa and the Control of Transboundary Movements and Management of Hazardous Wastes within Africa (Bamaako Convention); United Nations Convention on the Law of the Sea(UNCLOS); World Heritage Convention; The Convention on International Trade in Endangered Species of Wild Fauna & Flora (CITES); International Treaty on Plant genetic Resources for Food and Agriculture, 2003; The Stockholm Convention on Organic Pollutants (2002); The Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (known as the Rotterdam Convention – adopted in 1998); International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

4. Sustainable Development in Ethiopia, 1992-2012

In December 1991 the Transitional Government of Ethiopia prepared a national report on environment and development to the 1992 Rio Conference that outlined the country's development trends during 1972-1992 and beyond. Since then the government has produced the Rio+5, Rio+10, ICPD+5, ICPD+10, and ICPD+15 progress reports and has actively participated in all preparatory and major conferences related to environment and development.

Ethiopia's expectations of the 1992 Rio de Janeiro Conference included a critical review of the past two decades, recognition of the specific environmental and development problems of developing countries, a consensus building forum, additional financial resources to developing countries, as well as technology and knowledge transfer to developing countries. These concerns were very well covered in the conference's action plan for the 21st century, Agenda 21. However these expectations were not fully realized in the past two decades to a large extent due to unfulfilled commitments of the international community.

The GTP recognizes that sustainable development in Ethiopia can only be achieved if development is pursued in the social, economical and environmental areas in a balanced manner and ensuring that benefits accrued are equitably shared among the citizens of the country.

4.1. Social Development

With regard to the social pillar of sustainable development, conventional indicators that include life expectancy, infant and under-5 mortality, primary and secondary schools enrolment ratios, access to health facilities and improved water supply are discussed briefly. A composite indicator, the UNDP HDI s also provided.

Population and Development: The total fertility rate was 6.7 children per woman of reproductive age in 1994, and it declined to 5.9 in 2000, 5.4 in 2005, and 4.8 in 2011. An effective countrywide population information and education programme has been mounted for addressing issues pertaining to large family size and its relationships with human welfare and environmental security. Furthermore, Population and Family Life Education (POP/FLE) has been integrated into the curricula of elementary and secondary schools, particularly in subjects such as science, geography, biology, civic education and other courses. In general, the trend of population growth has shown a decline in the period.

Ethiopia has identified six priority areas among the reproductive health components of the ICPD Programme of Action. There are significant achievements over the last decade in the areas of: family planning; maternal and newborn health; reproductive health of young Sustainable Development Goals people; HIV/AIDS and STIs; harmful traditional practices that relate to the social and cultural factors that affect women's reproductive

health; and other reproductive health issues. The percent of women aged 15-49 who received antenatal services has increased from 17 to 34 percent during 2000-2011. Infant mortality declined from 97 deaths in 2000 to 59 deaths per 1,000 live births in 2011. Similarly, under-five mortality decreased from 166 deaths in 2000 to 88 deaths per 1,000 live births in 2011.

Gender equality and women empowerment have also shown progress. Moreover, youth empowerment and adolescent sexual and reproductive health is also top on the agenda, and various interventions and plans are in place.

In 1995/96 the poverty head count ratio was 45.5% and decreased to 29.2% in 2009/10. Ethiopia aims to achieve the Millennium Development Goals (MDGs) of halving extreme poverty and hunger by 2014/15 (FDRE, GTP.2010. p.32.).

Ethiopia has made impressive developments in the health sector and expected to achieve the MDG goals related to health care. The progress made during the five years of PASDEP alone is quite impressive. The number of health posts and health centers increased from 4,211 and 644 to 14,416 and 1,787, respectively while the number of public hospitals increased from 79 to 111 during the same period. Over 33,000 health extension workers were trained and deployed in the rural areas.(FDRE, GTP, 2010.) The UNDP Human Development Index (HDI) has improved over the years as follows: in 1991, 0.166; in 2000, 0.274; in 2005, 0.313; in 2009, 0.352 and in 2011, 0.363 (UNDP, HDR 2011)

Life expectancy at birth declined sharply in the 1980s, from 52 years in 1984 to 46.4 years in 1991, probably because of the HIV/AIDS pandemic (Forum for the Environment, 2009), civil war and famine. Health care services and development measures taken by the government of Ethiopia since early 1990s has improved life expectancy from 46.4 years in 1991 (EPA/MoFED. 1997,CSE) to 59.3 in 2011 (UNDP HDR, 2011). The health service coverage increased from 30% to 89% during PASDEP and the HIV prevalence rate dropped from 3.%% to 2.4% in 2009/10. Access to safe water in rural areas increased from under 11.8 percent in 1990 to 65.8 percent in 2010. The indicators demonstrate that the health sector has recorded encouraging results in the last decade.

The government developed the Education and Training Policy in 1994, and launched the Education Sector Development Programme (ESDP) in 1996/7, which is currently in the 4th phase. Over the past 15 years of ESDP implementation, commendable achievements were made in the education sector. To note, number of public universities has increased from 2 to 22 till 2010 and is expected to reach 33 when new universities under construction are completed. The public Technical and Vocational Education Training (TVET) colleges reached 253, while the number of primary schools increased from 11,780 in 2000/01 to 25,217 by the end of 2009/10. Primary school gross enrollment rates increased from 20.3% in 1993 to 51% in 2000 and more than quadrupled to 94.2% in 2010. The disparity in enrollment rates between male and

female gross enrollment ratio narrowed from 0.75:1 in 1997 to 0.93:1 in 2010 (MoFED, PASDEP, 2006) and (FDRE, GTP, 2010)

The average expenditure on education in the1980s and early 1990s was around 2.3% of the GDP. With shifts in government priorities to the pro-poor sectors, it started changing. In 1992, it was increased to 3.6% and reached as high 5% of the GDP by 2003/4. The government maintained the high level of spending, always above 4% of the GDP since then. The overall government expenditure in education has been maintained at around 20% of the total public expenditure during the last decade (MoFED, SDPRP, 2002).

In Ethiopia, women and children who collectively constitute about 70% of the population are among the most disadvantageous groups. The government of Ethiopia made various commitments that have enabled women and children concerns to become the priority focus. Such commitments include enacting a constitution that guarantees the rights of women and children, formulation of a national women's affairs policy with its implementation mechanism- women affairs structure, formulation of a national social welfare development policy which treats women and children as its components. Besides, international agreements like CEDAW, CRC, Beijing Declaration on Gender Equality and Advancement of Women, the Millennium Declaration, etc are ratified and made part of the national laws.

Since 2005/06, the Government has moved decisively to advance the agenda on the gender dimensions, and created the Ministry of Women Affairs, which was reorganized as Ministry of Women, Children and Youth Affairs in 2010/11. The National Action Plan on Gender (NAP), which formed the core of the gender strategy under PASDEP, was developed and implemented. The NAP is intended to mainstream gender into policies and programs for more gender equitable poverty reduction outcomes. Currently 26% of national parliament seats are occupied by female members.(UNDP, 2011 Human Development Report)

The Ministry of Women, Children and Youth affairs has now formulated a 20- years Development Plan. The plan is made with the aim of securing appropriate position for women and children in 2027/28, the time when Ethiopia envisions to be transferred in to a middle-income country.

4.2. Economic Development

In the 1980s and early 1990s, the Ethiopian economy was on a down-ward trend, with average GDP growth of 2.3% and per capita GDP growth of -0.4%. With economic reforms following social and political transformations, the 1990s and 2000s have registered positive growth, with an average real total and per capita GDP of 3.7% and 0.7% per annum, respectively (MoFED, 2002). The country began implementation of the integrated development plans in 2002, the first being the Sustainable Development and Poverty Reduction Program (SDPRP), which covered the past three years, 2002/03-2004/05. During SDPRP, the country began to register better economic performance, with an average GDP growth of 6.7% per year (and an average annual per capita income growth rate of 3.65%). The second and third years of SDPRP period actually registered double digit economic growth, with annual rates of 11.9% and 10.6%, respectively. Since then, the country has maintained high growth rates (MoFED, 2011). In 2012, the Ethiopian economy is estimated to be the third fastest growing economy in the world, and the first fastest growing economy in Africa (FDRE, CRGE, 2011) The country has registered such encouraging economic performances through formulation of policies and implementation of programs and putting in place appropriate institutional arrangements.

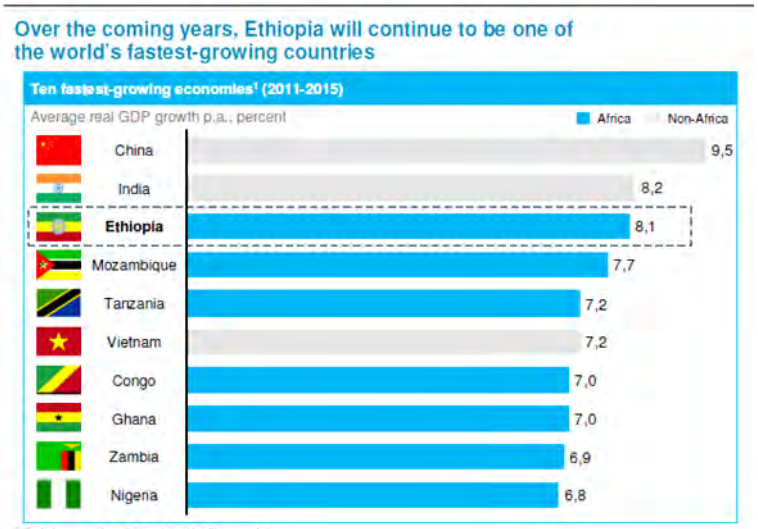


Figure 3: Ethiopia's fast growing economy compared to other countries (Source: IMF; The Economist, quoted from CRGE)

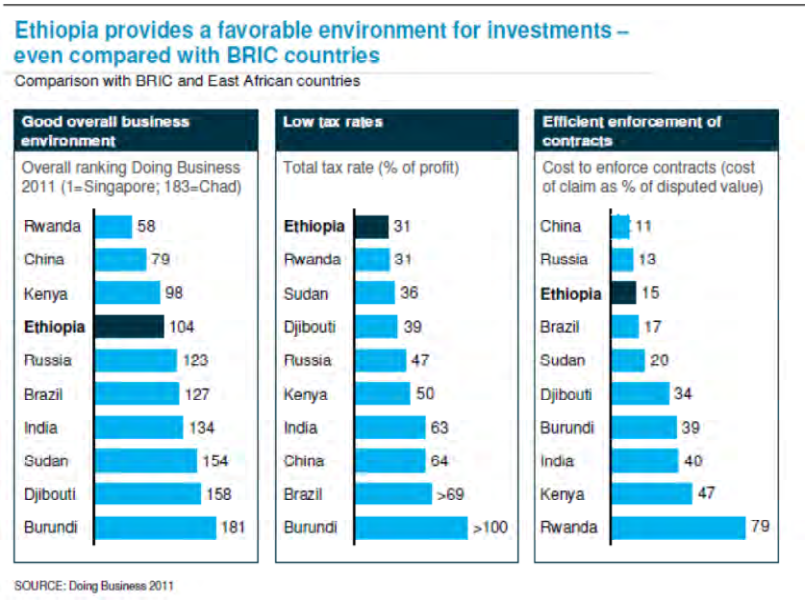


Figure 4: Ethiopia's favorable environment for investment demonstrated (FDRE, CRGE, 2011)

Ethiopia has sustained record of strong economic growth, during

the last decade contributing significantly to the sustainable development agenda: GDP has nearly tripled since 1992 with a corresponding reduction in head count poverty from 56 percent in 1992 to 29.5 percent in 2011 (MoFED 2012).

The International Monetary Fund forecasts for Ethiopia a real gross domestic product (GDP) growth of more than 8% per annum over the next five years. Foreign investment has increased from less than 820 million USD in 2007/08 to more than 2 billion USD in the first half of the 2010/11 fiscal year (FDRE, CRGE, 2011).

As indicated in the Figure 4, the World Bank's 2011 Doing Business Report ranks Ethiopia's overall business environment as better than many countries.

Sustainable Energy Development and Access in Ethiopia

Ethiopia has embraced sustainable energy development goal and has embarked on ambitious and grand renewable energy projects that are in harmony with the UN General Secretary's global initiative of "sustainable energy for all".

The Ethiopian Climate Resilient Green Economy strategy has adopted the following strategies based on the GTP's vision of achieving a middle income status by 2025:

1. Deployment of renewable and clean power generation
2. Expanding electricity generation form renewable energy for domestic and regional markets.

Table 1. Hydropower capacity developed before and after Rio 1992

Hydropower capacity developed up to 1992= 373 MW				Hydropower capacity developed during 1992-2012 = 1534 MW			
No	Power station	Capacity (MW)	Year Completed	No	Power station	Capacity (MW)	Year Completed
1	Koka	43.2	1960	1	Tis Abay II	73	2001
2	Tis Abay I	11.4	1964	2	Gilgel Gibe I	184	2004
3	Awash II	32.0	1966	3	Tekeze	300	2009
4	Awash III	32.0	1971	4	Gilgel Gibe II	420	2010
5	Fincha	134.0	1973	5	Tana-Beles	460	2010
6	Melka Wakana	153.0	1988	6	Fincha-Amerti Nesh	97	2012
	Total	**373.6**		7	Gilgel Gibe III	1870	Under construction
				8	Grand Ethiopian Renaissance Dam	6000	Under construction
					Total	**9404**	

Source: EEPCO

The strategy envisages expanding electric power by 14% per year, requiring an estimated investment of 38 billion USD over 20 years. It also plans to save an estimated 19 TWh through efficient energy use by 2030 from a projected demand of 70 TWh. This will release extra power that can be exported to generate foreign exchange and at the same time replace fossil fuel use in neighboring countries (FDRE, CRGE, 2011)

Access to electric power has increased to 47% in 2011 from about 8% in the 1990s. The per capita energy consumption increase from 20KW to 100KW and 6000 towns and rural areas have been electrified during the same period. (The Ethiopian Herald, 22 May 2012). Ethiopia's clean hydropower development has shown a marked growth in the last decade as indicated in Tables 1 and 2.

Current installed capacity from wind and geothermal sources are 45 and 7.3 megawatts respectively. The Adama I (Oromia Region) and Ashegoda (Tigray Region) wind power projects are near completion with capacities of 51 MW and 120 MW and soon the construction of Adama II wind power project will start with a capacity of 153MW. The planned power mix by 2015 is envisaged to be Hydro 9000MW, Wind 890MW, Geothermal 70MW and Solar 30 MW. Currently Ethiopia is exporting 35 MW to Djibouti, and in the near future 100MW to Sudan and 400MW to Kenya (Addis Zemen Daily, April 24, 2012). In addition to the generation of foreign exchange to the country, the conversion of fossil fuel based power generation to renewable energy in the neighboring countries has profound positive impact with regards to climate change.

The UN General Assembly last year unanimously endorsed a resolution designating 2012 as "The International Year of Sustainable Energy for all". The Secretary-General has set three ambitious but achievable objectives by 2030:[1]

- Ensuring universal access to modern energy services.
- Doubling the global rate of improvement in energy efficiency.
- Doubling the share of renewable energy in the global energy mix.

Ethiopia's CRGE strategy on sustainable energy development is in harmony with the Secretary General's objectives and Ethiopia has already been taking practical measures in line with these objectives. Electric power has now reached more than 47% of the population, a four-fold growth from what was seen in the early 90s and Ethiopia aims to provide 75% of its population access to modern energy by 2030. The country has taken energy efficiency measures by planning to disseminate 9 million improved cook stoves by 2015, replacing all incandescent lamps with energy efficient light bulbs, and transforming its transport and industry sectors into efficient systems through modern and efficient technologies.

[1] The Secretary-General's High-level Group on Sustainable Energy for All January 2012 Sustainable Energy for All :A Framework for Action

Agricultural Development

Agriculture is the backbone of the Ethiopian economy. It employs over 80% of the population, and still dominates GDP contribution. Its growth, like the country's economic growth, was stagnant for decades. The Ethiopian Government began taking different policy measures and development interventions since the 1990s. The overarching development policy of the country is Agricultural Development Led Industrialization (ADLI). The country has trained tens of thousands of extension workers and assigned a minimum of three extension agents (crop, livestock, and natural resources management) to each Kebele.[2] The agricultural sector has performed strongly over the last 10 years, registering an average of 8% growth. However, there is high potential to improve productivity, production and market linkages. The government has made strong commitment to the sector through allocation of more than 15% of the total budget (MoFED, PASDEP, 2006).

Agricultural Development Led Industrialization (ADLI).

Since the 1990s, the Government of Ethiopia followed the Agricultural Development Led Industrialization (ADLI) strategy. The ADLI's distinctive features include: (i), commercialization of smallholder agriculture through product diversification; (ii) a shift to higher-valued crops; (iii) promotion of niche high-value export crops; (iv) support for the development of large-scale commercial agriculture; (v) effective integration of farmers with domestic and external markets; and (vi) tailoring interventions to address the specific needs of the country's varied agro-ecological zones. ADLI remains to be at the government policy, at least for the next 5 years.

Development in the sector since 2002, during the implementation of SDPRP and PASDEP was encouraging, with over 8% annual growth. Based on the progresses during the last two plan phases success, the government developed the current Growth and Transformation Plan (GTP) (2010/11-2014/15), building a Climate Resilient Green Economy (CRGE) by 2025, and Agricultural Sector Policy and Investment Framework (PIF) for 2010-2020.

In order to achieve the goals set for the agricultural sector, the country has started additional new programs and created additional institutions that help to transform the sector. The Agricultural Growth Project (AGP) is a program focusing on selected high potential Woredas[3]. Beside the ministry, the government has also created Ethiopian Agricultural Transformation Agency (ATA).

[2] Kebele- the lowest level of government administrative unit, like municipality

[3] Woreda is an administrative division with several Kebeles and managed by a local government, equivalent to a district.

Agricultural Growth Project - AGP

The Agricultural Growth Project (AGP) of Ethiopia aims at increasing agricultural productivity and market access for key crop and livestock products in targeted woredas with increased participation of women and youth. It has three components: (i) agricultural production and commercialization; (ii) small-scale rural infrastructure development and management; and (iii) AGP management and monitoring and evaluation (M&E).

The AGP focuses on areas that are relatively rain-and food-secure and, given the right support, hold considerable potential for agricultural growth. It helps to scale up best practices in agricultural production and post-harvest value addition, with due emphasis on natural resource conservation and rehabilitation. A total of 83 woredas in 20 clusters in the four regions of Amhara, Oromiya, SNNPR, and Tigray have been selected.

Ethiopian Agricultural Transformation Agency (ATA) [4]

Based on the successes of the past 10 years, the Government of Ethiopia has created the Agriculture Transformation Agency to transform the agriculture sector and realize the interconnected goals of food security, poverty reduction, and human and economic development. The ATA is one of the measures taken by the government, in order to achieve the targets set in Ethiopia's current Five Year Growth and Transformation Plan (GTP). The targets focus on enhancing the productivity and production of smallholder farmers and pastoralists, strengthening marketing systems, improving participation and engagement of the private sector, expanding the amount of land under irrigation, and reducing the number of chronically food insecure households (FDRE, GTP, 2010).

Agricultural Sector Policy and Investment Framework (PIF) 2010-2020

The Policy and Investment Framework (PIF) provides a strategic framework for the prioritisation and planning of investments that will drive Ethiopia's agricultural growth and development. With continued strong commitment of the Government to finance agriculture and rural development over the next decade, the agricultural sector budget shall also grow from around 0.75 billion USD in 2010/11 to as much as 2.74 billion USD per annum by the end of the PIF period. On this basis the total budget over the ten-year PIF would be around 16.6 billion USD, of which around 2.5 billion USD is already committed under existing programmes and projects. Most (80 per cent) of the additional 14 billion USD of funding will be required during the second half of the PIF period (MoRAD, 2010).

[4] Source: www.ata.gov.et

Rural Development Policy and Strategies (MoFED, April 2003)

The objectives of the policy and its strategies emphasizes rural and agriculture-centered development strategy result in fast and continued economic growth, guarantee maximum benefits to the majority of the population, minimize dependency on foreign aid, and promote the development of a market-oriented economy in Ethiopia. The strategies which transform the policy into implementation include: The labor-intensive strategy; Proper utilization of agricultural land; Exploring and harnessing potential resources; Agro-ecological zone based approach; Integrated development path

Community Based Participatory Watershed Development:

The program aims to use existing natural resources and untapped potentials in both already degraded areas and in the remaining potential areas in the country by conserving soil, rainwater and vegetation effectively for productive uses.

In an effort to implement this program in many parts of the country, during the PASDEP (2004/05-2009/10) the following achievements were recorded. (MoA, The Agriculture Sector Five Year Development Plan, 2010)

- In order to rehabilitate eroded and degraded land and bring back to their previous productivity level, about 1,708,100 ha of land was treated under area closures.
- Appropriate physical and biological soil conservation methods were applied to 2,076,000 hectares of land.
- In rainfall deficit areas, various techniques to conserve and increase soil moisture and water availability were applied to 1.28 million hectares.
- About 122,430 hectares of land was irrigated by constructing small-scale reservoirs to promote household food security.
- Different watersheds covering an area of 1,958,000 hectares were covered with planting of multipurpose trees.

Sustainable Land Management Program:

This program has its objectives to support scaling up of best land management practices and technologies in sustainable land management and the adoption of these management practices and technologies by smallholder farmers in the “high potential/ food insecure” areas that are becoming increasingly vulnerable to land degradation and food insecurity.

Under this component, a total of 35 watersheds in 35 woredas in the six Regional States (i.e. Amhara, Oromiya, Tigray, SNNP, Beneshangul Gumuz, and Gambela) are covered. These watersheds, with an average size of about 8,500 ha, comprise 15 to 20 sub-watersheds. The program treats a total area of about 250,000 ha benefiting 500,000 households (MoA, SLM Project).

Productive Safety Net Program

The program has kick-started in 2005 by the GoE and a consortium of donors in response to chronic food insecurity in rural Ethiopia. The program operates as a safety net, targeting transfers to poor households in two ways—through public works (PW) and direct support (DS).

The PSNP reaches more than 7 million people and operates with an annual budget of nearly 500 million U.S. dollars.

Industrial Development

The industrial development of Ethiopia operates within the framework of the country's overarching economic development policy, ADLI. Industrial development during the implementation of past development plans like PASDEP, supported micro, small, medium and large industries, especially those using agricultural inputs. Encouraging developments were recorded over the past decade. For instance, around 1.5 million jobs were created during the five years implementation of PASDEP. Texitle and garments, and other industrial sectors, however, performed poorly during PASDEP. The share of industry in the GDP contribution remains low compared to the agriculture and service sector. In 2000/01, industry contributed 11% of the GDP. Its share has increased to 13.0 % in 2009/10, 15% in 2010/11 and is projected to reach 19% of the GDP by 2014/15, growing by 20% per year, twice growths recorded in the past. By 2025, industry is expected to overtake agriculture in GDP contribution, with 32% contribution, as compared to 29% in agriculture.(MoFED, GTP, 2010;FDRE,CRGE,2011) To achieve these goals, the government has created an independent ministry for the industry sector in 2010/11. The industrial development strategy shall follow the green economy development path. During the first year of GTP implementation, industry development performance has shown improvement, with 15% growth in 2010/11.(Ethiopian News Agency, 19 April 2012).

Mining development

The main goal of the mining sector development is to create environment for private investors for exploration and development of the mineral resources. In this regarding impressive progresses were recorded in generating basic geological data useful in the mining, water resources, agriculture, and infrastructure development specifically dams, tunnels and highways. During the PASDEP period alone, the regional geological mapping coverage increased from 38% in 2004/05 to 53% in 2009/10, and targeted to reach 100% by the end of the GTP, 2014/15. Similarly, hydro geological mapping coverage increased from 27% in 04/05 to 42% in 09/10 and is expected to reach 83.7 in 2014/15. Annual investment in the mining sector has increased from ETB 62 million in 2004/05 to ETB 12.7 billion in 2009/10, with the GTP target of reaching ETB 20 billion in 2014/15. (MoFED,GTP, 2110)

Infrastructure development

Road transport is the dominant transport system in Ethiopia, connecting urban-rural areas, and the country to regional ports. In the early 1990s, classified road network in Ethiopia was limited to about 23,000 km, of which about 75% was rated as in poor condition. The Government has set out a Road Sector Development Program (RSDP) in 1997, with the aim of speeding up the improvement and expansion of the road network. The first three phases of the RSDP has seen significant improvements in the restoration and expansion of Ethiopia's road network.

As a result of the RSDP investment, the total road network in Ethiopia has increased on average by about 4.2% each year. By June 2010, the total classified road network had increased to 48,793 km (excluding community roads). This is an increase of some 22,243 km since the launch of the program in June 1997, giving a road density of 44.4 km per 1000 km2 and 0.58 km per 1000 population. By the end of GTP period, the road network is expected to reach 136,004 km, increasing the proportion of road in acceptable condition to 86.7% in 2014/15. (MoFED, GTP, 2010)

The **railway sector** is not developed in Ethiopia. The existing railway connecting Addis Ababa with neighbouring Djibouti is out of function. The Government has initiated the railways network development during GTP. The network planning using GIS and satellite images have been completed and awarding construction contracts already started. The target is to construct 2,395 km of national railway network by 2014/15, of which around 1,808 km will be completed. Additionally, 34 km light railway network shall be constructed in Addis Ababa. The development of national and light railways shall play an important role in cost effective and time efficient means of transporting bulk inputs, produce and people. It is also a low or carbon neutral means of transport since it uses the hydropower electric grid powered energy for locomotion.(MoFED, GTP, 2010)

The **telecommunication sector** development was stagnant for several decades, though the country is one of the early users, with introduction in 1890s. The number of fixed line subscribers was 175,000 in 1990/91. The government has been implementing Universal Telecommunication Access Programme. Commendable achievements were made during the past two decades. Under PASDEP, about 10,000 km fiber optic cable was installed, connecting major telecommunication infrastructures; a National Network Operation Center was put in place, enabling the central administration to control service quality standard and management of service failures. The number of fixed line subscribers has reached 1.2 million in 2010, and is targeted to reach 3.05 million by 2014/15. Similarly, mobile subscribers increased from 0.411 million in 2004/05 to 6.52 million in 2009/10, and targets at reaching 40 million subscribers by the end of 2014/15. During GTP implementation, the Universal telecommunication Access Programme shall be expanded and extended to include additional social services in order to enhance the sector's role in the implementation of development strategies and plans of other sectors. The management of the sector is being transformed, with management contracts given to international private firm (MoFED, GTP, 2010).

Urban development

The key strategic areas of urban development in Ethiopia are poverty and unemployment reduction, sustained and integrated development through urban-rural linkages and participatory engagement of the public. The national Urban Development Policy was adopted in March 2005. During 2004/05-2009/10, 213,000 houses had been built in various regions and city administrations and as a result of the housing development program, 4306 small construction enterprises were established, while 176,000 permanent and temporary jobs were created. This low cost condominium building projects are continuing in all major cities of the country with support from communities and are essential undertakings for addressing the huge gap in the housing demand. Solid Waste Management Proclamation was passed in 2007 (FDRE, 2007) but much remains to be done for its implementation. Currently, there are programs like the National Biogas Program, that aim at fighting poverty, climate change, while contributing to solid waste management. There are different commendable urban development initiatives like coble stones road construction, solid waste management, landfill sites construction, industrial zones establishment, small and micro enterprises promotion and other labor intensive initiatives that employ urban youth. For instance, the ministry has prepared detailed sectoral GTP in which creating 3 million jobs in the construction sub-sector have been targeted by 2014/15. The slum areas were reduced from 70% in 2004/05 to 35% in 2009/10, and expected to be 20% by the end of GTP period, 2014/15. Unemployment has also declined from 40% in 2004/05 to 20% in 2009/10 (MoFED, GTP, 2010).

4.3. Environment Development

With regard to the environmental pillar, Ethiopia has developed and implemented a range of legal, policy and institutional frameworks on environment, water, forests, climate change, and biodiversity, as enumerated in Section 3.2 of this report. The Environment Protection Authority was created in 1994. The Institute of Biodiversity and the Ethiopian Wildlife Conservation Authority have also been strengthened with more power and mandate in conservation of biodiversity and sustainable use. Progresses made in different sub-sectors of the environmental development are presented in the section below.

Forestry

During the second half of the 20th century, the country has experienced severe deforestations and degradation. The EFAP report (1994) estimated the annual rate of deforestation to be 150,000 to 200,000 hectares annually. The major drivers are agricultural expansion, unsustainable harvest for timber and fuel wood extraction.

In the 1990s, government focused on generating information on the forest resources, strategic planning and establishing policy framework for sustainable development. The Ethiopian Forestry Action Programme (EFAP) was launched in the 1990s, in order to document the forest resource base of the county, identify major drivers and develop action plans to tackle the problems in the forestry sector. Based on desk review and stakeholders consultation, the EFAP has produced a national forestry strategy, the Ethiopian Forestry Action Plan (EFAP 1994). The regional states have also prepared their own forestry action plans. Furthermore, the forestry development was well integrated into different river basins master plans like Abay (the Blue Nile), Tekezie, Omo-Ghibe, Baro-Akobo, and Genale-Dawa, which cover most areas of the country.

Building on the EFAP, the country launched its Woody Biomass Inventory and Strategic Planning Project (WBISP), and covered the whole country in two phases during 1989-2005. The WBISPP project concluded inventory and up-to-date cover mapping of all forests and woodlands in the country by 2005 (WBISPP 2005). Other similar forest resource assessments include the natural high forest monitoring (Reusing 1998) and Forest Monitoring in South West Ethiopia (JICA 1997). These projects have generated reliable information on forest resources of the country, and laid the foundation for development planning in the sector.

The government also created spaces for NGOs' engagement in sustainable forest management, through participatory forest management (PFM) practices. A number of NGOs and bilateral programs launched PFM in the mid-1990s. Implementation of PFM laid ground for participatory forest management and benefit sharing required by sustainable forest management during the era of climate change.

Over the last decade, the country has made impressive progress in tree planting. During the PASDP implementation (2004/05-2009/10) alone, the forest cover of the country increased from 4.1 million ha (3.56%) to 8.8 million ha (6.0865) of the total area (MoFED, GTP, 2010). Most of the progress was made during the tree planting campaign to celebrate the Ethiopian Millennium in 2008. The four major regions, Oromia, SNNP, Amhara and Tigray alone planted 2.21 billion seedlings in 2009 and 4.4 billion propagules (3.8 billion seedlings and the remaining broadcasting and planting cuttings) in 2010 (EIAR 2011).

Some regional governments made efforts to make forestry as a viable economic sector. Oromia regional state has established forest enterprises with a supervising agency in 2007, and restructured it as "Oromia Forest and Wildlife Enterprise (OFWE)" since 2009. OFWE manages all state forests and protected areas, while taping the economic potentials of forests and parks. OFWE manages many natural forests through PFM arrangement. The Amhara Regional State also followed suite and established the Amhara Forest Enterprise in 2011.

Biodiversity

Ethiopia is endowed with rich biodiversity. Ethiopia has over 6,000 species of vascular plant (with 625 endemic species and 669 near-endemic species, and one endemic plant genus), 860 avian species (16 endemic species and two endemic genera), 279 species of mammal (35 endemic species and six endemic genera), 201 species of reptile (14 endemic species), 23 species of amphibians (23 endemic species), 150 freshwater fish (6 endemic species). (YOUNG.J. March 2012). Ethiopia's protected areas are increasingly degraded. Land is being converted for subsistence and commercial agriculture, timber used for fuel wood and construction. The loss of forests and other protected land is caused by a growing population, unsustainable natural resource management, poor enforcement of existing legislation.

The flora and fauna are rich in endemics, given the island nature of its highlands, and unique evolutionary history of the southeastern lowlands. The agricultural landscapes are also rich in crop genetic diversity. Ethiopia is one of the seven major Vavilov Centers of Crop Plants Origin and Diversity, and per haps the third most important after China and India.

As demanded by Article 6 of the CBD, Ethiopia has prepared its National Biodiversity Strategy and Action Plan (NBSAP) document. The NBSAP document "defines the current status of, pressures on, options for, and priority action to ensure the conservation, sustainable use, and equitable share of benefits accrued from the use of biological diversity of Ethiopia. The NBSAP serves as a roadmap for supporting the environmental component on Ethiopia's journey to sustainable development." (IBC 2005).

Throughout the country there are many designated protected areas of land including National Parks, Wildlife Reserves, National Forest Priority Areas, Biosphere Reserves and Community Conservation Areas. Parks, game reserves and sanctuaries cover 14% of the total area of the country. These protected areas systems, however, do not represent the montane forests of Ethiopia, wetlands and other key ecosystems of the country. Over the past 10 years, five new national parks, namely: Alatish in Amhara, Kafta Shiraro in Tigray, Yabello in Oromia, and Chebera-Churchura and Maze in SNNP were established, increasing the number of national parks to 15. Over 70 key conservation priority areas for birds have been identified and documented. Two UNESCO Biosphere Reserves have been established recently: the Yayu Coffee Forest Biosphere Reserve in Oromia (Tadesse W.G et.al., 2009) and the Kafa Biopshere Reserve in SNNP regional state (Denis Moss Partnership. 2009). The two biosphere reserve nominations were approved by UNESCO in 2010, and represent the monatne forest areas in southwestern Ethiopia. One more has been nominated in 2011 in the same region, with a fourth nomination on Lake Tana under preparation.

The Institute of Biodiversity Conservation has implemented "A Dynamic Farmer-Based Approach to the Conservation of African Plant Genetic Resources" project, which has

contributed to conserve crop genetic resources on farm. IBC is currently implementing a new project on "Mainstreaming Agro-biodiversity Conservation into the Farming Systems of Ethiopia ", addressing policy and market issues.[5]

Ethiopia is among the pioneer countries in *ex-situ* conservation. Crop genetic resources have been stored in cold room (Gene Bank) and field gene banks by the Institute of Biodiversity Conservation (IBC), since 1976. Currently, the Gene Bank at IBC holds more than 62,000 accessions of 166 plant species in cold storage. IBC also manages Field Gene Bank.

With the completion of gap-analysis and other studies by the GEF funded "Sustainable Development of the Protected Area System of Ethiopia (SDPASE)" project, more sites are expected to be identified and protected in order to conserve key biodiversity areas and meet the CBDs commitment of establishing a conservation target of 17% of terrestrial and inland water areas made during the 10th COP meeting at Nagoya [6]. Ethiopia has also been consistently reporting the National Reports to the CBD secretariat.

Pollution control

The Environmental Policy of Ethiopia has given due emphasis to the control of hazardous materials and pollution from industrial wastes, and adopted the "polluter pays" principle while endorsing the precautionary principle. The government has passed various laws to control pollution, such as the EIA[7] and pollution control[8] laws including Council of Minister's regulation to prevent industrial pollution in 2008[9].

Libreville Declaration on Health & Environment in Africa has been adopted in 2008 by ministers of health and environment in Africa. Ethiopia has made the necessary assessments and finalized a report on health and environment in 2010. EPA is also currently developing a project for GEF with the Ministry for Information and Communications on e-waste management and computer de-manufacturing. Besides, EPA is collaborating with BCRCs (Basel Convention Regional Coordinating Centres) in Africa.

Land degradation and Sustainable Land Management

Land degradation is the major environmental problem resulting in low and declining agricultural productivity in the country. The average annual soil erosion rate nationwide was estimated at 12 tonnes per ha, giving a total annual soil loss of 1,493 million tonnes. The soil erosion hazard is much higher for land under annual crops as compared to that under grazing, perennial crops, forest and bush.

[5] See www.ibc.gov.et
[6] CBD. 2010. COP 10 Decision X/2: Strategic Plan for Biodiversity 2011-2020: http://www.cbd.int/decision/cop/?id=12268
[7] Environmental Impact Assessment Proclamation No. 299/2002
[8] Pollution Control Proclamation No 300/2002
[9] Council of Ministers Regulation No 159/2008

Ethiopia has experienced food security problems due to land degradation. The country has implemented variuos strategies that deal with both food security and environmental rehabilitation. The northern parts of Ethiopia have been implementing area closure, physical and biological soil and water conservation measures since early 1990s, and registered success stories. For instance, the forest and woodland cover in Tigray has increased tremendously (ca. 26%). This was achieved through the food-for-work program, which was later scaled-up to all food insecure parts of the country through Safety Net programme during PASDEP and the current GTP.

During PASDEP, the area of land rehabilitated through soil and water conservation work has increased from 0.82 mln ha in 2004/05 to 3.77 million ha in 2009/10. By the end of the current GTP, total rehabilitated area through soil and conservation work is expected to reach 10.21 million ha. Additionally, a total of 7.78 million ha is expected to be developed through community based watershed development (MoFED, GTP, 2010). The government plans to achieve more than the GTP target, integrating the CRGE strategy during implementations. For instance, in 2011/2012 alone, around 6.8 million ha of degraded areas have been rehabilitated through community participation and the plan is to cover 15 million hectares with soil and water conservation activities.(Ethiopian Herald 2 May 2012)

Climate Change

Ethiopia has made important decisions and taken various measures to minimize the effects of climate change. It is party to both the UNFCCC (ratified in 1994) and the Kyoto Protocol (ratified in 2005). The Environmental Protection Authority (EPA) and the National Meteorological Agency (NMA) have been designated as DNA and Focal Points, respectively. His Excellency Prime Minister Meles Zenawi has represented the country and the AU on climate change related negotiations since 2009, and has been co-chairing the UN Secretary-General's High-level Advisory Group on Climate Change Financing in poor countries since 2010.

Ethiopia has submitted the First National Communication in 2001, and the National Adaptation Program of Action (NAPA) to UNFCCC in 2007, which identified 11 priority areas. The government has also conducted Technological Needs Assessment (TNA) in 2008, prioritizing the technology needed for mitigation and adaptation. Ethiopia has also submitted its Nationally Appropriate Mitigation Action (NAMA) plan to the UNFCCC in 2010.

The country has completed the preparation of the "Ethiopian Program of Adaptation to Climate Change" (EPACC), which replaces the NAPA. It has also completed developing an overarching framework and national strategy, the "Climate Resilient Green Economy Strategy" (CRGE). The **Green Economy** Strategy has been completed for seven sectors that offer the highest greenhouse gas abatement potential: Power Supply; Buildings and Green Cities; Forestry (REDD+); Agricultural/Soil-based Emissions; Livestock; Transport; and Industry. The Green Economy Strategy

has been approved in 2011, and is being integrated in the implementation of the current Growth and Transformation Plan as of 2012. Climate Resilient Strategy is under development, and expected to be completed in July 2012. The Government is has set-up a national financial mechanism called the CRGE Facility, to support the implementation of the priorities set out in the CRGE Strategy.

Ethiopia is part of two major REDD (reduced emissions from deforestation and forest degradation) schemes: the Forest Carbon Partnership (PCPF) of the World Bank and the UN-REDD. In the PCPF scheme, Ethiopia submitted R-PIN in 2008, and the REDD Readiness Preparation Proposal (R-PP) in 2010. The R-PP has been approved in 2011, and started attracting initial funds for pilot projects implementation. Feasibility studies for potential REDD+ projects have been conducted for the Bale Eco-Region and the Yayu Coffee Forest Biosphere Reserve. The Bale Eco-Region REDD+ Project is advancing to PDD development with the support of two NGOs, FARM-Africa and SOS Sahel. The government and other development partners are also implementing climate change adaptation projects at community level. These include GEF funded projects like Coping with Drought and Climate Change, Community-Based Integrated Natural Resources Management in Lake Tana Watershed, and Promoting Autonomous Adaptation at the community level in Ethiopia.

4.4. Challenges and Opportunities

Measuring progress towards sustainable development

Assessment of progress in the implementation of Agenda 21 and achievement of sustainable development in the country should not be a one-time event in five or ten years. There should be a mechanism for repeated measuring of indicators to establish trends and make proper follow up on implementation.

Indicators of sustainable development are not available in Ethiopia and international and regional institutions have been grappling with the development of sustainability indicators for a long time. With the exception of some guidelines and frameworks there are no concrete proposals that can assist countries to develop monitorable sustainable development indicators.

The development and use of sustainable development indicators at the national level must closely relate to the conditions and priority areas of the countries. The indicators should be able to gauge changes in the well-being of the residents of the country as well as the well-being of the ecosystem. These indicators should be developed by the relevant country level institutions taking into consideration their capacity to measure and interpret the indicators.

Challenges

Ethiopia faces the following challenges, which the country hopes to address in the medium and long term timeframe:

The greatest challenge of all is posed by climate change. Unfortunately this challenge cannot be addressed by the effort of one country alone. Although Ethiopia is poised to do whatever is necessary and within its capacity through the Country's CRGE strategy, climate change requires a global response.

The major challenges facing sustainable development efforts of the country in different sectors are outlined as follows:

Social

- Poor quality of education at all levels, from primary to higher learning institutions, due to the focus on infrastructure and quantity to meet MDG goals
- Achieving education coverage in remote, scattered and underdeveloped pastoralist areas due to lack of schools and teachers/ trained human resource
- Possibility of leaving out the marginalized poor members of community in poverty reduction programs and initiatives
- Despite efforts and commitments of the government, cultural barriers still hinder reaching the desired achievement in girls education, eradication of harmful practices and early marriage that affect health, economic and social life at adulthood.
- Population growth: the total population of Ethiopia is expected to be over 120 million in 2030. Although there are ongoing population and family planning programs, and marked decreases in the population growth rate over the years, population growth still poses challenges in employment, education and health care services provision, pollution and housing, especially in urban areas.
- Urban squalor and supply of housing which is not commensurate with the urban population growth.
- Poor services provision and infrastructure development due to scattered rural settlement
- Slow progress in the provision of sanitation services
- Increasing unemployment in urban areas

Economic

- Keeping the trends of increasing agricultural productivity to meet food security while attaining the green economy strategy and desired economic transformation
- Skilled human resources demanded by the emerging development in the industry sector
- Job creation, provision of housing and pollution control that cops up with the desired urban areas transformation and population growth
- Poor infrastructure in remote and areas with high potential for development
- Inflation

- Pollution in industrial zones, rivers and urban areas
- Land degradation, habitat fragmentation and loss of threatened species and habitats as a result of developments in the agriculture, industry, construction, mining and urban development activities
- Skilled human resources for iPlans development in the key sectors and prioritized initiatives; monitoring, reporting and verification (MRV) of various abatement measures implementation
- Coordination and integration of the different development initiatives and their implementation

Finance

- Securing external funding may undermine the development in environment pillar of the SD and implementation of key CRGE initiatives.
- External factors such as the slow and declining flow of new and additional financial resources from developed countries to developing countries (as promised by the international community) is also affecting progress towards sustainable development in Ethiopia. However Ethiopia has embarked on many development programs and projects by committing its own financial sources. In this context the country's ambitious five year Growth and Transformation Plan may face financial constraints if not adequately supported by development partners.

Opportunities

The last two decades have witnessed tremendous growth in infrastructure development in Ethiopia. This will form the basis for rapid socioeconomic growth and coupled with environment protection, progress towards sustainable development shall be enhanced.

Natural resources of the country such as water, geothermal, solar and wind resources offer opportunities for developing emission free electric power to meet the energy demand by the expected rapid economic growth.

Political commitment and leadership that is provided by the Prime Minister of Ethiopia at the national, regional and international levels shall promote and enhance the implementation of the CRGE strategy that is a cornerstone for sustainable development in Ethiopia.

Specifically, the following opportunities are worth mentioning

- Expansion of education infrastructure all over the country at all levels, from schools, TVETs and universities, and civil services focused training institutions
- Continuous supply of trained personnel for the expanding schools and health care centers throughout the country
- Strong commitment, institutional arrangement, policy and legal instruments to ensure gender equality

- Diverse agro-ecology, ranging from hot and desert areas below sea level to humid and temperate highlands, presence of biodiversity (wild and domesticated), suitable for most economic activities.
- The growing trends in regional and sub-regional economic and political integration
- Increasing technical and financial south-south cooperation and trade
- The country's readiness to follow the green economy development path, its environmental benefits and carbon trading opportunities
- Suitable policy and legal environment to attract foreign direct investment
- Massive human resources development investment to implement the ambitious GTP and CRGE strategies.

"Uncertainty about the exact nature of future climate change must not be interpreted as uncertainty in the need to act now to minimize future damage." CRGE, 2011

5. Green economy in the context of sustainable development and poverty eradication[10]

Ethiopia has taken a bold and ambitious decision to set its vision to achieve middle-income status by 2025 while developing a green economy. Ethiopia's Climate-Resilient Green Economy (CRGE) vision and strategy emanated from the Constitution of Ethiopia and the Environment Policy of Ethiopia approved in 1994 and 1997 respectively.

Global circulation models predict a 1.7-2.1ºC rise in Ethiopia's mean temperature by 2050. This could cause food insecurity, outbreak of diseases such as malaria, dengue fever, cholera and dysentery, malnutrition, land degradation and damage to infrastructure. To protect its citizens from such impending catastrophe and to attain its vision of becoming a middle income country by 2025 the government of Ethiopia has adopted a climate resilient green economy strategy.

Box 1: National Improved Cook stoves Program in Ethiopia:

National Improved Cook Stoves Program in Ethiopia: Implementers: Ministry of Water and Energy in partnership with UNDP, BARR Foundation, Global Alliance for Clean Cook stoves and others.

Objective: to support the dissemination of 9 million improved cook stoves in Ethiopia up to 2015 through building sustainable and vibrant market for improved cook stoves and institutional capacity.

Outcomes: adoption of 9 million ICS by 4.5 million households resulting:

- Save ca. 2.1 tons woody biomass per year per household;
- A total abatement potential of 14MTof CO2 e ;
- Avoidance of 1000-2000 deaths per year due to; indoor pollution
- Creating 5000 private sector jobs largely in rural areas.

The CRGE strategy focuses on four pillars that will support Ethiopia in developing green economy:

1. Adoption of agricultural and land use efficiency measures
2. Increased GHG sequestration in forestry, i.e., protecting and re-establishing forests for their economic and ecosystem services including carbon stocks
3. Deployment of renewable and clean power generation
4. Use of appropriate advanced technologies in industry, transport, and buildings.

In general four initiatives for fast-track implementation have been selected under the CRGE: (i) exploiting Ethiopia's vast hydropower potential; (ii) large-scale promotion

[10] The content of this section is mainly quoted from Ethiopia's Climate Resilient Green Economy Strategy document.

of advanced rural cooking technologies; (iii) efficiency improvements to the livestock value chain; and (iv) Reducing emissions from deforestation and Forest degradation (REDD).

The CRGE strategy is briefly outlined under the selected eight priority sectors (the eighth, health sector strategy is under development).

1. Agriculture-Soil/ crop

a. Intensify agriculture through usage of improved inputs and better residue management resulting in a decreased requirement for additional agricultural land that would primarily be taken from forests;
b. Create new agricultural land in degraded areas through small-, medium-, and large-scale irrigation to reduce the pressure on forests if expansion of the cultivated area becomes necessary;
c. Introduce lower-emission agricultural techniques, ranging from the use of carbon and nitrogen-efficient crop cultivars to the promotion of organic fertilizers. These measures would reduce emissions from already cultivated areas.

Box 2: REDD PROJECT IDEA NOTE and CDM Project

Bale Mountain Eco-region Emission Reduction Assets: A large scale community based Carbon Finance project for the voluntary carbon market reducing emissions from forest degradation and deforestation. The project covers an area of 0.5 million ha and surrounds the Bale Mountains National Park that covers 0.2 million ha. Until 2017 the project will sequester 21 million tCO2 by i) reducing the current deforestation rate, ii) rehabilitating the forest and related carbon stocks and by introducing sustainable forest management practices.

Humbo Assisted Natural Regeneration Project (Afforestation and Reforestation)

The project was developed by World Vision Australia and is supported by the World Bank Bio Carbon Fund. It is one of the 1st registered CDM forestry projects in Africa, covering 2728 ha. The project is aiming to sequester 0.4Mt CO2 by 2020, and is already generating income from carbon finance for the community.

2. Livestock

a. Increase animal value chain efficiency to improve productivity, i.e., output per head of cattle via higher production per animal and an increased off-take rate, led by better health and marketing,
b. Support consumption of lower-emitting sources of protein, e.g., poultry. An increase of the share of meat consumption from poultry to up to 30% appears realistic and will help to reduce emissions from domestic animals,
c. Mechanise draft power, i.e., introduce mechanical equipment for ploughing/tillage that could substitute around 50% of animal draft power, which – despite burning fuels – results in a net reduction of GHG emissions.
d. Manage rangeland to increase its carbon content and improve the productivity of the land.

3. Forestry

a. Reduce demand for fuelwood via the dissemination and usage of fuel-efficient stoves and/or alternative-fuel cooking and baking techniques (such as electric, LPG, or biogas stoves) leading to reduced forest degradation,

b. Increase afforestation, reforestation, and forest management to increase carbon sequestration in forests and woodlands. These initiatives would result in increased storage of carbon in Ethiopia's forests, provide a basis for sustainable forestry, and even allow the forestry sector to yield negative emissions, i.e., store more carbon in growing forests than are emitted from deforestation and forest degradation.
c. Promoting area closure via rehabilitation of degraded pastureland and farmland, leading to enhanced soil fertility and thereby ensuring additional carbon sequestration.
d. Boxes 1,2 and 3 demonstrate some of the on-going projects in line with Ethiopia's CRGE.

Box 3: The Grand Ethiopian Renaissance Dam Project (GERDP).

Source: EPCCO

The GERD project site is located on the Abay River some 20 km upstream of the Ethiopia – Sudan border. The GERD is a Roller Compacted Concrete (RCC) dam with a dam height of 145 meters. With installed capacity of 6000MW, the expected average energy production per year is more than 15,000 GWh.

The project will greatly contribute to access to renewable energy both in Ethiopia and neighboring countries, reducing the use of fossil fuel for energy generation, ensuring reliable water supply for Ethiopia and downstream countries, reducing flooding hazards in downstream countries.

"

4. Energy

Generation of clean and **renewable electric** power: Expanding electricity generation from renewable energy for domestic and regional markets.

5. Transport

a. Introduce stricter fuel efficiency standards for passenger and cargo transportation and promote the purchase of hybrid and electric vehicles to counter the low efficiency of the existing vehicle fleet
b. Construct an electric rail network - powered by renewable energy - to substitute road freight transport
c. Improve urban transport in Addis Ababa by introducing urban electric rail, and enabling fast and efficient bus transit
d. Substitute imported fossil fuels with domestically produced biodiesel and bioethanol.

6. Buildings

a. Accelerated transition to high efficiency light bulbs for residential, commercial, and institutional buildings
b. Use of landfill gas management technologies (e.g., flaring) to reduce emissions from solid waste
c. Reduction of methane production from liquid waste.

7. Industry

a. Improved energy efficiency processes by converting the technology used from preheaters to precalciner kilns, from rotary to grate coolers and by introducing computerized energy management and control systems, which can decrease the energy demand and hence the cost of and emissions from cement production

b. Reducing the ingredient share of clinker by increasing the pumice and fly ash content, leading to a decrease in both variable production costs and emissions.
c. Increased share of biomass in the mix of energy for production in cement factories, potentially decreasing costs and emissions.

Building the green economy requires an estimated total expenditure of around 150 billion USD over the next 20 years. By developing a green economy, the GHG emissions reduction could be exchanged for climate finance to fund some of the required investments.

Implementation of CRGE could lead to a decrease in GHG emissions of up to 64% compared to business as usual (BAU) in 2030. Given the projected population growth, emissions on a per capita basis would decrease from 1.8 t of CO2e to 1.1 – a decrease of around 35% – while multiplying GDP per capita from 380 USD to more than 1,800 USD. To achieve this goal, over 60 Green Economy initiatives have been identified for their potential to ensure that Ethiopia's 2030 greenhouse gas (GHG) emission levels do not exceed the current 150 megatonne CO2 equivalent.

More than 80% of the abatement opportunities cost less than 15 USD per ton of CO2e, and 16 initiatives have 0 or negative costs of abatement, i.e., economically attractive initiatives albeit a significant initial investment. About 55% of the total abatement potential can be captured by 5 initiatives: low emitting techniques in agriculture, fuelwood efficient stoves, afforestation/ reforestation, yield increasing and power exports.

The agriculture and forestry sectors received particular attention as they contribute around 45% and 25% respectively to projected GHG emission levels under business-as-usual assumptions and together account for around 80% of the total abatement potential.

Implementation Arrangements

Since 2009, several components of Ethiopia's Climate Resilient Green Economy Initiative have been under development. These components are outlined in Ethiopia's CRGE Vision document and they include a CRGE Strategy, an integrated planning process dubbed iPlan under which CRGE programmes and investment plans, CRGE institutions (e.g. CRGE units in line ministries and in regional states), a national Monitoring, Reporting and Verification (MRV) system will be developed and a CRGE Facility as a financial mechanism to support the implementation of the CRGE. Currently, iPlans are being developed for the prioritized initiatives, including REDD+ in forestry, Wind, Geothermal Energy, livestock, cooking stoves and soil sub-sectors. The country has finalized its REDD Readiness Preparation Plan (R-PP) for the World Bank's Forest Carbon Partnership Facility (FCPF), and has joined the UN-REDD. Ethiopia is one of the few countries that have made progresses in both FCPF and UN-REDD schemes. With regard to renewable energy, Ethiopia's iPlan for Scaling - Up Renewable Energy Program (SREP) has been approved by the Climate Investment

Fund in March 2012. The SREP focuses on development of wind and geothermal energy projects in central rift valley parts of the country.

Institutional Arrangements

The government has also created institutional arrangements for CRGE strategy implementation. CRGE Facility has been put in place within the Ministry of Finance and Economic Development. The Facility is responsible for resource mobilization, and disbursement. The EPA shall develop a system for monitoring, reporting and verification. On the other hand, each sector shall have a CRGE Unit. They are also requested to draw their own sector specific strategies that are aggregated to form a national Climate Resilience Strategy. Work is still in progress.

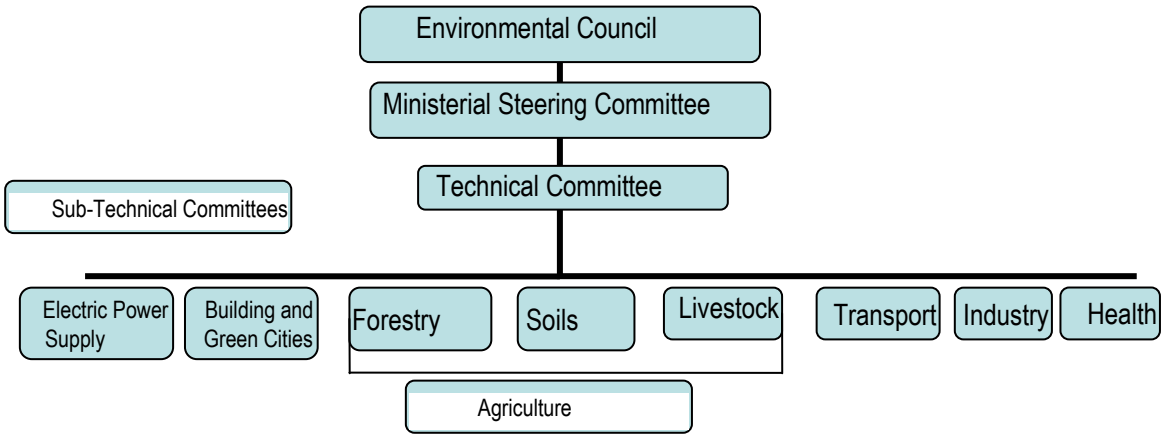
The CRGE Facility has two main committees: the Technical Committee responsible for technical evaluation of funding applications, and the Management Committee which assesses recommendations of the Technical Committee and requests funds to be released from UNDP.

All sectors are mainstreaming the initiatives of CRGE strategies in the implementation of GTP until 2015. During this period, the national capacity to implement CRGE strategies shall be built. The national 5 year-development plans fully integrate the CRGE strategy.

Currently, the Ministry of Agriculture and Regional Bureaus of Agriculture are up-scaling the Sustainable Land Management Programme (SLMP) piloted during the PASDEP implementation. Around 500 ha of degraded or vulnerable areas are being rehabilitated in 2012 in each rural kebele; constructing soil conservation structures, planting trees and setting aside a minimum of 100 ha land as area closure. Such activities shall continue throughout the GTP period and beyond, and contribute to the CRGE initiative of reducing emissions from soil/ crop production practices. In total, around 4.3 million ha of degraded areas have been rehabilitated with public participation in 2011/12 alone.

CRGE Governance: The CRGE Initiative has thus far been led and overseen by the Prime Minister's Office, the Environmental Protection Authority, and MoFED. The CRGE Strategy has been developed by (i) technical sub-committees composed of 6-7 government officials from various line ministries in relevant sectors, (ii) a technical committee coordinating the work of the sub-committees and chaired by EPA and (iii) an inter-Ministerial steering committee at a high-level decision making body guided this process, chaired by the PM's office, as depicted in Figure below.

The Prime Minister Office's leadership and inter-ministerial approach ensure national commitment and alignment across the government structure.



Going forward, the full roll-out of the CRGE Initiative will continue to be coordinated and overseen by PMO, EPA and MoFED jointly but through an integrated planning process called the iPlan.

CRGE Sectoral and Regional Programmes and Investment Plans: Under the iPlan process, over the course of 2012 and 2013, the priority sectors and initiatives identified in the CRGE Strategy will be translated into sectoral programmes and investment plans for implementation by line Ministries and regions. Line Ministries will have an active and important role to play in translating the priorities set in the CRGE Strategy into sectoral programmes and investment plans and implementing them.

Similarly, regional investment plans that aggregate woreda proposals for action in support of the national agenda of building a climate resilient green economy will be developed through a Mechanism to Motivating, Supporting and Rewarding Results (mMSRr), a mechanism that includes performance-based reward system to incentivize community-level action. To this end, CRGE Units are being set-up in all relevant line Ministries and regions gradually.

Monitoring, Reporting and Verification (MRV) system for CRGE: The iPlan process will also support the setting-up a national MRV system for monitoring results. The CRGE Registry will be an important element of the MRV system and would eventually be integrated into the national MRV system.

The Government has thus decided to set-up a national financial mechanism called the CRGE Facility, to support the implementation of the priorities set-out in the CRGE Strategy and the development and implementation of CRGE Programmes and Investment Plans. The Facility will be based in and overseen by MoFED. Types of mitigation and resilience (Adaptation and Disaster Risk Management) activities to be financed through the Facility's non-iPlan window are provided in Annex 2 of this report.

To ensure that international fiduciary standards are met and international climate finance can be accessed immediately, the Government has also decided to give UNDP the role of interim Trustee.

6. Institutional Framework for Sustainable Development

In the early 1990s, the country made a successful transition towards peace and democracy, putting a federal system of government in place with the 1994 Constitution. The Constitution guaranteed democratic and human rights, laying the basis for devolution of decision making power and responsibilities to regional states, and creating the foundation for participatory development and empowerment. The Constitution also guaranteed the 'right to improved living standards and sustainable development' in Article 43 and the 'right to a clean and healthy environment' in Article 44.

The federal government is responsible for national defense, foreign relations and the general policy of common interest and benefits. The federal government is comprised nine autonomous states vested with power for self-determination. The FDRE is structured along the lines of bicameral parliament, with the council of Peoples' Representatives being the highest authority of the federal government while the federal council represents the common interests of the nations, nationalities and peoples of the states. Members of both councils are elected by universal suffrage for a five-year term.

According to Article 54/1 of the Constitution of the FDRE, members of the House of People's Representatives are elected by the people for a term of five years on the basis of universal suffrage and by direct, free and fair elections held by secret ballots.

The House of People's Representatives (HPR) has 11 standing committees. Each standing committee has 13 members, including the chairman and the secretary.

The committees of the HPR are: Foreign Affairs, Security and Defense Affairs Standing Committee; Legal and Administrative Affairs Standing Committee; Women's Affairs Standing Committee; Capacity Building Affairs Standing Committee; Information and Cultural Affairs Standing Committee; Budget and Finance Affairs Standing Committee; Trade and Industry Affairs Standing Committee; Infrastructure Affairs Standing Committee; Social Affairs Standing Committee; Rural Development Affairs Standing Committee; and **Natural Resources and Environmental Protection Affairs Standing Committee.**

The Council of Ministers coordinates and leads 20 sector ministries and 22 agencies and authorities. These sector ministries and agencies are grouped in such a way that the 11 standing committees of the House of Peoples Representatives provide an oversight and occasional supervision of their respective performances. The public participates in all sectors performance reporting that is organized by the standing committees. It is customary for the House of Peoples Representatives to call for public participation through the media on the scheduled meetings of the standing committees and the respective sector ministry. The public has the option of participating in the meeting or can forward questions and comments via telephone or writing. All government officials including the Prime Minister report to the House of Peoples Representatives

regularly on the performance of their respective sectors on the basis of the annual plans and approved budgets. These sessions are all open for the public. These arrangements and practices are also replicated at different administrative levels in the regional states. There are councils of elected representatives and cabitets of executives at regional states and woreda (district) levels. The Woreda council has the strongest decision-making with regard to implementation of sustainable development initiatives at the grass-root level.

Any institutional arrangement for sustainable development should ensure the participation of the public in all spheres of development.

The Ministry of Finance and Economic Development (MoFED) ensures coordination of line ministries in the preparation of medium and annual plans. This ensures that the three pillars of sustainable development (social, economic and environment) are accorded balanced importance with resource allocation, with a view to ensure that economic development results in the improvement of peoples' lives and the environment.

Similar arrangements are evident at the federally autonomous regional states with decentralized participatory planning and implementation practices that support the sustainable development agenda. There are nine regional states and two chartered cities in the Federal Democratic Republic of Ethiopia as stipulated in the Constitution. The states are Afar, Amhara, Benishangul-Gumuz, Gambella, Harari, Oromia, Soamli, Southern Nations, Nationalities and Peoples, Tigrai and Addis Ababa and Dire Dawa cities. The regional states have their own parliament, councils headed by the presidents of the respective regional states. Further, the local administrations have councils at Woreda levels, though some regions like the SNNP regional states have councils at zonal administration levels as well. The regional states are the implementers of the GTP and the CRGE. All regional states have prepared their respective plans for climate change adaptation and all have participated in the formulation of the country's climate resilient green economy strategy.

There are a number of local non-governmental organizations that are engaged in sustainable development and environment management supporting the efforts of the government. These include Centre for Indigenous Trees, Propagation and Biodiversity Development in Ethiopia; Environment and Coffee Forest Forum (ECFF); Ethio-Wetlands and Natural Resources Association (EWNRA); Ethiopian Heritage Trust; Forum for the Environment (FfE); Institute for Sustainable Development (ISD); LEM, the Environment and Development Society of Ethiopia; MELCA Ethiopia; Population, Health, Environment (PHE) Consortium; Sustainable Land Use Forum (SLUF), and others.

7. International Environment Governance (IEG)

Ethiopia fully supports the African Consensus Statement with regard to IEG issued at the Africa Regional Preparatory Conference for the United Nations Conference on Sustainable Development (Rio+20) Addis Ababa, Ethiopia 20-25 October 2011, including the identified characteristics of the strengthened UNEP.

In line with the African Consensus Statement, the following need to be emphasized:

- The United Nations Environment Programme (UNEP) should be strengthened and transformed into an international specialized institution for the environment based in Nairobi, Kenya, with a view to fully address Africa's needs in matters of the environment, sustainable development and climate change,

- The strengthened UN environment organization should have increased authority to bring coordination and coherence to the range of multilateral environmental agreements, by promoting synergies while respecting the legal autonomy of the conferences of the parties to those agreements

- The strengthened UN environment organization should have the capacity to provide technical and financial support to developing countries such as Ethiopia that have taken bold steps in climate resilient green economy.

8. The draft Rio+20 document entitled "The Future We Want"

Ethiopia supports the draft Rio+20 outcome document with emphasis on the following aspects:

1. For a green economy to succeed, finance, investment, technology transfer and capacity building are all crucial. In our view, the outcome document should address these issues in unequivocal manner. Ethiopia has launched its climate resilient green economy strategy along with a comprehensive institutional framework and CRGE facility that is designed to be a central funding mechanism for all CRGE programs and projects. The outcome document should contain statements that encourage and support the CRGE initiative put in place by Ethiopia and other similar climate related initiatives.

2. The means of implementation should incorporate key deliverables that would help developing countries, particularly Africa and LDCs to make important strides in their development endeavors.

3. The Sustainable Development Goals should not serve as substitutes but rather complement the ICPD Programme of Action and MDGs, which are not only yet to be

met but need to be strongly stated in the outcome document along with post 2015 development agenda as important tools to address issues of poverty, hunger, infant as well as maternal mortality in many of the poor nations of the world.

4. Ethiopia urges the Conference to adopt concrete measures, supported by adequate means of implementation and the international community to accelerate and increase support to Africa, to enable it to enhance implementation of its sustainable development commitment.

5. Ethiopia believes that sustainable land-use in agriculture and hydropower for sustainable energy development are cornerstones of the green economy for sustainable development and poverty eradication.

6. Ethiopia stands by the statement in the draft outcome document that states, *"We reiterate that the green economy should not be used as a trade barrier or to impose conditionalities on developing countries; neither should it be used by developed countries as a pretext for not fulfilling their pledges and commitments towards developing countries. The green economy should be based on the Rio principles, including the principle of common but differentiated responsibilities, and respect the policy space of each country*."

7. Ethiopia has embraced a sustainable energy development goal and has embarked on ambitious and grand renewable energy projects that are in harmony with the UN Secretary General's global initiative of "sustainable energy for all". The Rio+20 outcome document needs to come up with concrete strategies and an action plan to operationalize the "sustainable energy for all" initiative of the UN Secretary General.

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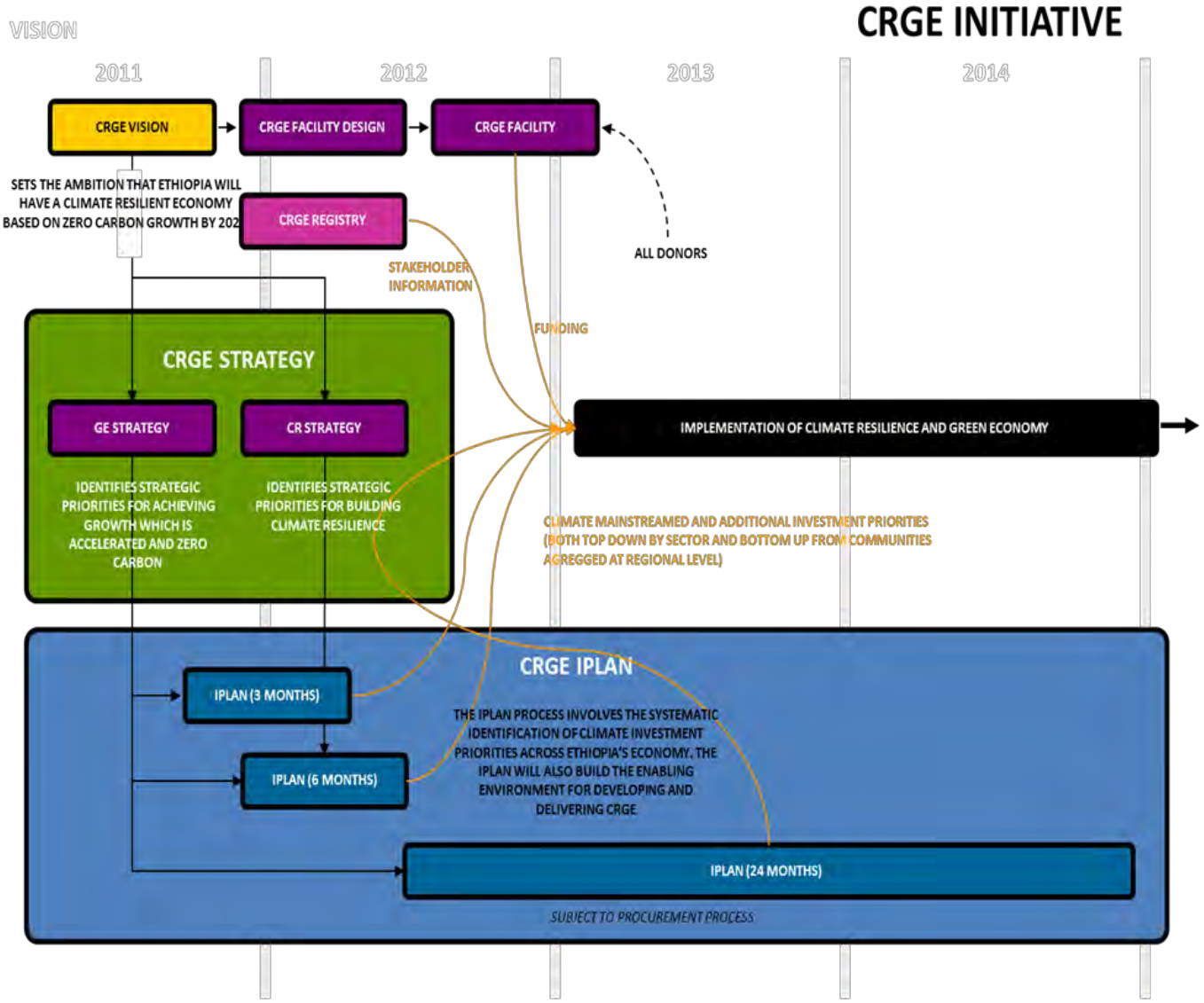
Annex 1: Overview of the components of the CRGE Initiative[11]



[11] Copied from the CRGE Strategy

Annex 2: Proceedings of National Assessments Report Validation Workshop ,Addis Ababa, May 7, 2012

Introduction

The validation workshop of the **National Report of Ethiopia for Rio+20 Conference** was held at Beshale Hotel in Addis Ababa, on May 7, 2012. The participants included representatives from Environment Protection Authority, Ethiopian Development Research Institute, Addis Ababa University, Ministries of Agriculture, Industry, Urban Development and Construction, Water and Energy, Science and Technology, Mines, Women, Children and Youth, international organization: , UNDP, the World Bank, World Food Program, FAO, WHO, and NGOs and the private sector including Forum for Environment, Christian Children Fund, Ethiopian Coffee Forest Forum, Horn of Africa Regional Environment Center, Chamber of Commerce and Green Vison plc..

The objectives of the workshop were to: (1) report the processes through which the national report was compiled; (2) present the key findings of the report regarding the progresses of Ethiopia on mainstreaming sustainable development agenda; (3) discuss the draft report and get the approval of the different sectoral ministries and major group regarding the contents of the report regarding their respective sectors; (4) identify gaps and gather missing information from the different sectors.

A total of 31 participants attended the workshop. The workshop was opened with remarks made by the organizers: Environmental Protection Authority (EPA) and UNDP. The Director of the Environmental Management Systems at EPA welcomed participants, and recognized the contributions of UN agencies, different sectors and individuals to the preparation of the report. He also noted the importance of active participation of participants in identifying gaps and providing missing information to the national consultants, which will improve the quality of the report. The Team Leader of the Climate Change, Environment and DRM Team at UNDP mentioned the successful collaboration of EPA and the UNDP in facilitating the preparation of the report. He also noted that the report is of the Government of Ethiopia, to which the different sectors and development partners have provided inputs.

Following the opening remarks, participants introduced themselves and the organization they represented. This was followed by two presentations by the consultants. The first

presentation was about the national preparatory process, followed by the presentation of the National Report of Ethiopia. Intensive discussions were conducted to which all participants have contributed. The summary of the presentations and discussions are presented in the following sections.

Presentations of the National Assessment Report

The first presentation provided a brief overview the Rio+20 conference themes and objectives, the national preparatory processes and phases (stocktaking, stakeholders consultation and national report preparation), formation of a Steering Group for the coordination of the preparation processes, and various meetings and steps taken to compile the report. In this presentation, it was also noted that the national consultants prepared one final draft report, instead of preparing a stock taking report and national report separately, mainly due to time constraint. It was also necessary to combine the stakeholders' consultation workshop with the final validation workshop.

Participants were provided with a copy of the draft National Report prior to the presentation. The presentation of the National Report provided an overview of the whole report, which has eight sections.

Discussions on the report

All participants have actively contributed to the discussions. They provided general comments on the preparation processes and scope of the report, coverage of their specific sectors, challenges and opportunities. The issues discussed and explanations given are grouped and presented in the following section.

General Comments

Participants appreciated the report as concise, informative and to the point. It was also noted that the report covers 20 years trends, and needs to focus on big issues and challenges that are officially recognized by the government and multilateral agencies like the UN.

Some participants questioned the scientific rigor of the methods or processes followed in the preparation of the report. It was also commented that the national consultants' team should have been composed of members of major universities in the country, so as to produce scientifically sound report. In line with the preparation process, the private sector and CSO also said that they should have been part of the Steering Group team.

Representatives of EPA, UNDP and the consultants explained the reasons for using the presented preparation processes in this case (1) the report is not a scientific report, but official government document to be presented on Rio+20 conference and should be based on government sources; (2) there is already existing Steering Group for the CRGE strategy preparation of the different sectors, which made it easier to compile information available in key sectors; (3) the time available for the whole process was too short; (4) it was planned from the beginning to include the contributions from most stakeholders like the private sector, NGOs, women and youth through such consultation and validation workshops. Participants representing the NGOs, major groups and the private sectors were encouraged to provide as much information as they have in order to enrich the report and make it complete.

It is important to note some issues raised by the representatives of the chamber of commerce on behalf of the private sector: (1) The role of the private sector is very important in this endeavor, and yet there is hardly any mention of the private sector, (2) The way forward for sustainable development should consider public-private-partnership as one approach; and (3) Any future government intervention needs to consider and take on board the private sector, and this needs to be reflected by its inclusion in the steering group and the different technical committees for ease of communication and ownership of the very initiatives that aim at green economy and sustainable development.

Some participants also noted the repetitions in the report. For example, all paragraphs in the summary are repetitions from the main document, and suggested rewriting them with a different language. Besides, many have also said that the document focused on strengths and positive trends, and the limitations were not exhaustive.

Some participants also raised the need to have clear objectives to limit the scope of the report and indicate what a reader expects from the onset. Besides, it was suggested that challenges be drawn from the description in every section, than having general list of challenges.

The need to balance between the scope of the report on three pillars of sustainable development (social, economic and environment) was also raised. In connection with this, the Conservation Strategy of Ethiopia recommended environmental planning unit within all sectors, and some participants raised the need to indicate how far it has been

implemented in the report. Some also suggested that the report should focus on how the smallholders have benefited from development programmes and multilateral projects, as well as NGOs implemented projects.

The role of NGOs has been mentioned only in the Forestry sector, and representatives of NGOs suggested inclusion of a paragraph under each sector, since the role of NGOs in achieving sustainable development is significant

Many have also raised the role of Media in disseminating information, raising awareness about sustainable development, environment, and challenges like climate change.

Gaps identified in the different sectors/ components SD

Participants identified some areas/sectors not adequately addressed by the report. These included national policies, MEA, and achievements and challenges of specific sectors.

Policy reviews:

The policies, strategies and plans reviewed in the report were said to be not exhaustive. For example, the following policies were indicated to be missing:

- The recent Science and Technology Innovation Policy. It has 11 major strategies, of which one is on the environment. This needs to be included in the policies description.
- Other sectoral policies like Agriculture and Rural Development, National Urban Development, Gender, etc needs to be considered.

MEA

- Addition to the MEA: International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), the contribution of Ethiopia (IBC) in adoption of the Nagoya Protocol and current progress in ratification.

Economic development

Agriculture

The agriculture and natural resources sector has been treated in more details. However, some participants have identified gaps that be filled to provide a good picture of its importance in the country's economy. The points raised during the discussion include:

- Agriculture is leading economic sector. Its role/ contribution to the national economy should be well emphasized.

- Agricultural development policies and strategies also need revisit, including the focus on smallholders
- Achievement in the agricultural development have not been adequately covered
- Success stories in the areas of sustainable land management, productive safety net programs and watershed management programs need elaboration.

As a follow up of the discussion, representatives of the MoA has provide key policies and success stories in the agriculture after the workshop, which is presented as follows:

- **The major policy and strategy to be included in "the National RIO+20 Report" is the** Rural Development Policy and Strategies (MoFED, 2003). The objectives of the policy and its strategies emphasizes rural and agriculture-centered development strategy that results in fast and continued economic growth, guarantee maximum benefits to the majority of the population, minimize dependency on foreign aid, and promote the development of a market-oriented economy in Ethiopia. The strategies which transform the policy into implementation include:

  i. The labor-intensive strategy
  ii. Proper utilization of agricultural land
  iii. Exploring and harnessing potential resources
  iv. Agro-ecological zone based approach
  v. Integrated development path

The programs that worth considering are

1. **Community based participatory watershed development:**

   The program is a working instrument that aims to use existing natural resources and untapped potentials in both already degraded areas and in the remaining potential areas in the country by:

   - conserving soil, rainwater and vegetation effectively for productive uses,
   - harvesting surplus water to create water sources in addition to ground water recharge,
   - promoting sustainable farming and stabilize crop yields by adopting suitable soil, water, nutrient and crop management practices,
   - rehabilitating and reclaim marginal lands through appropriate conservation measures and mix of trees, shrubs and grasses, based on land potential,

- enhancing the income of individuals by the diversified agriculture produce, increased employment opportunities and cottage enterprises, particularly for the most vulnerable, linked to the sustained use of natural resources.

In an effort to implement this program in many parts of the country, during the PASDEP (2004/05-2009/10) the following achievements were recorded (MoA, The Agriculture Sector Five Year Development Plan, 2010):

- In order to rehabilitate eroded and degraded land and bring back to their previous productivity level, about 1,708,100 ha of land was treated under area closures.
- Appropriate physical and biological soil conservation methods were applied to 2,076,000 hectares of land.
- In rainfall deficit areas, various techniques to conserve and increase soil moisture and water availability were applied to 1.28 million hectares.
- About 122,430 hectares of land was irrigated by constructing small-scale reservoirs to promote household food security.
- Different watersheds covering an area of 1,958,000 hectares were covered with planting of multipurpose trees.

2. **Sustainable Land Management Program:**

This program has its objectives to support scaling up of best land management practices and technologies in sustainable land management and the adoption of these management practices and technologies by smallholder farmers in the "high potential/ food insecure" areas that are becoming increasingly vulnerable to land degradation and food insecurity.

Under this component, a total of 35 watersheds in 35 woredas in the six Regional States (i.e. Amhara, Oromiya, Tigray, SNNP, Beneshangul Gumuz, and Gambela) are covered. These watersheds, with an average size of about 8,500 ha, comprise 15 to 20 sub-watersheds. The program treats a total area of about 250,000 ha benefiting 500,000 households (MoA, SLM Project).

3. Productive Safety Net Program

The program has kick-started in 2005 by the GoE and a consortium of donors in response to chronic food insecurity in rural Ethiopia. The objective of the PSNP is to provide transfers to the food insecure population in chronically food insecure *woredas* (districts) in a way that prevents asset depletion at the household level and creates assets at the community level" as well as bridging the food gap that arises when, for these households, food production and other sources of income are insufficient given food needs.

The program operates as a safety net, targeting transfers to poor households in two ways—through public works (PW) and direct support (DS).

The PSNP reaches more than 7 million people and operates with an annual budget of nearly 500 million U.S. dollars.

Other Economic development sectors

- The part on Energy policy should be mentioned - as under draft stage, since the old energy policy does not address renewable energy
- It was also suggested that the GTP targets of energy and water be taken from GTP. The table in the report was taken from EEPCO report.
- It was noted that the water sub-sector was not adequately covered, suggested mentioning the targets in the GTP for water supply, which is expected to reach 98% by 2014/15.
- It was also noted that the report barely addressed developments in sectors like industry, transport, and communication.
- Even in the environment development part of urban development, the report only mentioned solid waste management proclamation. But, there are many practical implementations that must be mentioned. For example, the National Biogas Program is part of a major venture to fight poverty, climate change and also has a contribution to solid waste management.
- With regard to industry and other sectors, there is information gap in the report, and relevant sustainable development indicators are already available in the GTP document.

Social

Gender

The representative of the MoWCYA suggested that the report cover the challenges, opportunities and achievements in women empowerment included in the report in more detail. She noted the existence of reports like endangering climate change, and other reports by the ministry. The participation and benefit of women from the development remains to be low despite efforts by the government and different actors. Projects like 'economic empowerment of rural women' needs to be reviewed.

Women are the major victims of social afflictions. Gender participation and benefits in basic health services and education have actually not reached the desired level.

Environmental development

Under environment, forestry and biodiversity conservation were well elaborated, though some quantitative data on achievements are needed. Institutional arrangement in the forestry sector like the case of Oromia Forestry and Wildlife Enterprise was mentioned in the report. Participants also noted the establishment of Amhara Forest Enterprise recently, and suggested inclusion in the section on regional states efforts to establish and strengthen forestry/ environment institution.

With regard to biodiversity conservation, the protected areas system was briefly discussed in the report. Participants suggested protected areas categories and the number of each category indicated, i.e., the exact number of national parks, wildlife reserves, controlled hunting areas, sanctuaries and biosphere reserves. It was also suggested that Community Conservation Areas be acknowledge in the report, since they are crucial *in-situ* conservation sites in the country. A good example worth mentioning is 'The Guassa Community Conservation Area', which is legally recognized by the Amhara Regional State

The recent Nagoya Protocol on access to genetic resources and benefit sharing also worth mentioning, since IBC was IBC leading the negotiations process in partnership with other stakeholders. The Protocol is expected to be signed soon by the government.

Participants identified other gaps in environment pillar of sustainable development, especially pollution, land degradation and climate change. Revision of the following aspects of the environment were suggested:

Pollution: has been mentioned as major problem that existed, with a growing concern as industries and urban areas grow. Many rivers around Addis Ababa are polluted with urban waste and industrial waste. There is also high level of air pollution in urban areas. The landfills are not well developed and properly managed. Pollution has become health threat, for people and livestock. If such problems are elaborated in the report, they can also be potential investment areas.

- Libreville Declaration on Health & Environment in Africa has been adopted in 2008 by ministers of health and environment in Africa. Ethiopia has made assessments and finalized report on health and environment in 2010. The need for prevention of industrial pollution is in the report.
- Concerns were also raised on pollution from Electrical and Electronic wastes which is recently becoming a pressing national issue. The participants suggested that the report should elaborate on management of e-wastes like batteries, mobile phones, computer parts, out of use radios, refrigerators and the like. Regarding e-waste, the representative from EPA elaborated that the Authority has now finalized the preparation of a regulation on electrical and electronic wastes. The objective of the regulation is to prevent the hazards to human health and environmental wellbeing posed by electrical and electronic wastes and also to design a system that will set the collection, management and disposal of electrical and electronic wastes to be based on the precautionary principle in accordance with recognized best management practices,

- The representative from EPA further stated that the office is developing, in close collaboration with the Ministry of Information and Communication Technology, a project for GEF funding with a view to making the MoICT a regional training hub for the entire African region. As the issue is transboundary in nature, the work has already gained support from the government of Kenya as well as the Basel Convention

Regional Coordinating Centers in Africa. With regard to climate change and land degradation, there are progresses in policy formulation as well as practical actions with success stories, as there are challenges. It was suggested that the report covers these aspects in a bit more detail. Some have noted the mentioning of the planning of high number of seedlings in the report, and suggested quantification of the survival rate. There were efforts of land rehabilitation through area closure, SLM. Such efforts were successful in northern Ethiopia. Participants asked if these efforts can be quantified.

Urban development

Participants noted the urban development part needs some revision. It was suggested that the report covers the National urban development policy, strategies and actions. There are initiatives like cobble stones road construction, solid waste management, landfill sites construction, industrial zones establishment, small and micro enterprises promotion and labor intensive initiatives that employ urban youth. The problem of increasing unemployment in urban areas was mentioned in the document. This needs to be enriched with progresses made in job creation in urban area. The ministry has prepared detailed sectoral GTP in which targets of creating 3 million jobs in the construction sub-sector have been set. Strategies in the urban development sub-sector have also been identified.

Challenges

Nearly all participants have commented on the challenges listed in the report. Comments given on the challenges range from general aspects to very specific issues within different sectors and subsectors. These include the following:

- Challenges should be drawn from the document/ detailed descriptions in the report. For example, scattered rural settlement was raised as a challenge, but the issue of scattered rural settlement was not described in other parts of the report. Hence, the importance of relating the challenges raised in the document to sustainable development was noted.
- Girls' education remains a challenge in many parts of the country because of cultural barriers, violence and the like. Parents prefer daughters to stay at home and assist their mothers rather than going to school with the belief that girls cannot achieve anything by learning. In some areas, even if there are schools in rural, parents do not send girls due to fear of violence against them. Besides, female circumcision, early marriage, etc

are causing serious health problems to women or girls. These should be identified as challenges under the sector. Deep rooted traditional values and harmful traditional practices are not solved over night, but achievements and challenges should be dealt with seriously.

- The need to deliberate on the national Institutional arrangement challenges was also discussed at length.
- Challenges with regard to national capacity to respond to disaster and water stress, regional policies, and the like were also seen as gaps.
- Some participants raised the need for verification of population pressure as a challenge. The Lead Consultant cited national policies on family planning, CTP, and the like as measures that are addressing the high population growth rate. High population also means, the need to create more jobs in a country with already high unemployment rates, the need to provide quality education fall, and pressure other service provisions like health, water, etc. Hence, the need to control population growth with appropriate policy instruments is vivid.
- Regarding slow progress in provision of water, scattered rural settlement that were mentioned as challenges, it was advised that the report reflect on the country's policy on settlement, rural development, urban-rural linkages, the effects of land fragmentation on land degradation, etc.
- All challenges should be viewed in line with the government policies, address way of solving these challenges; opportunities, actions/ interventions required should be discussed.
- Some have noted the progresses made regarding provision of potable water and possibilities of fulfilling the MDG goals as planned. But, sanitation remains to be a challenge. It is also indicated in the 2010 MDG report, with explanations for poor performance in sanitation and has to be elaborated in the report.
- The challenge of rural-urban migration mentioned in the report needs to be qualified. How is it a challenge? How does it align with different policies of the government?

Opportunities

Participants appreciated the opportunities identified in the report. Besides, it was suggested to include the following as opportunities:

- Diverse agro-ecology, ranging from hot and desert areas below sea level to humid and temperate highlands, presence of biodiversity (wild and domesticated). Agro ecology suitable for most economic activities. This has to be highlighted/ elaborated very well.

- Expanding education coverage
- The Green Economy strategy of the country
- The growing trend in regional economic and political integration
- Different opportunities pertinent to major challenges identified. e.g., pollution problems in urban and industrial areas could be investment opportunities.

Climate Resilient Green Economy (CRGE)

The CRGE section was considered to be adequately addressed, except minor editions. Information provided in the main part of the Green Economy strategy and the appendices are not consistent, especially for industry and urban waste management. The experts from the ministry of industry suggested using the information presented in the appendices.

It was also recommended that the report indicate the amount money required to implement the whole GE strategy, and contributions of specific projects like the Grand Renaissance Dam and energy saving stoves to the clean energy development. Some participants also noted the recent move by EEPCo of increasing electric bills as consumption increases. In the past EEPCo was changing less as consumption increased which encourage people to convert to electric power. But now it is the reverse, and could be due to pressure from leading institutions. The current policy seems to be a negative incentive for people to switch to electricity. It was also noted that encouraging private to invest in renewable energy could contribute to meet GE targets/Vision

Institutional Framework

Participants felt that the national institutional issue was not dealt with adequately. Some have suggested the need for the establishment of a ministry for Environment and Natural Resources, and National Council for Sustainable Development instead of the current Environmental Council. The National Council for SD can address the

integration of all pillars of sustainable development. Though there was no consensus on the issue by all participants, the CSO coalition strongly supported the idea of establishing National Council for SD.

Regarding the pillars of sustainable development, the possibility of including *Governance and Institutions* as a fourth pillar of Sustainable Development was suggested as provided in the Draft Africa Review Report on the Progress Towards Sustainable Development of UNECA.

Conclusion and follow up

The Lead Consultant thanked the participants for their active deliberations on the report, and promised to incorporate the issues raised in the draft final report. He requested the participants to provide any additional comment or information useful to improve the quality of the report by e-mail. He also noted that the final report shall be prepared by the government, using the draft report as input. The Director of the Environmental Management Systems at EPA, thanked the participants for their active participation. He also thanked UNDP and UNDESA for their support. He urged the participants to send their comments and any additional contributions to the consultants and EPA contact persons as soon as possible, since the time left to submit the draft final report is within a week.

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