



CGIAR Challenge Program on  
**WATER & FOOD**

**Nile**

# The development of key national policies with respect to rainwater management in Ethiopia: A review



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NBDC Technical Report 2

Prepared by  
Ethiopian Economics Association

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The Nile Basin Development Challenge (NBDC) is funded by the CGIAR Challenge Program on Water and Food (CPWF). It aims to improve the resilience of rural livelihoods in the Ethiopian highlands through a landscape approach to rainwater management. It comprises five linked projects examining: 1) Learning from the past; 2) developing integrated rainwater management strategies; 3) targeting and scaling out of rainwater management innovations; 4) assessing and anticipating the consequences of innovation in rainwater management systems; and 5) catalyzing platforms for learning, communication and coordination across the projects.

The NBDC is implemented by a consortium comprising the International Livestock Research Institute, International Water Management Institute, World Agroforestry Centre, Overseas Development Institute, Nile Basin Initiative, Ethiopian Economic Policy Research Institute, Catholic Relief Services – Ethiopia, Oromia Regional Research Institute, Amhara Agricultural Research Institute, Bahir Dar University, Ambo University, Nekemte University, the Ministry of Agriculture and Rural Development and the Ministry of Water Resources.

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# 1 Background

## 1.1 Policymaking process and context in Ethiopia

The natural resource bases of agriculture (environment, land, water) are the key factors of its performance and sustainability. To date several policies relevant to the sector were developed and adapted. Policy priorities are led by the government's visions. Agriculture and rural centred development (the Agricultural Development Led Industrialization, ADLI) encompassing poverty reduction and food security, commercialization, and export promotion have been the major strategic direction of the Ethiopian Government for the last two decades. The government has also identified five pro-poor sectors including agriculture, health, education, infrastructure, and water.

The Ministry of Finance and Economic Development (MoFED) formulates macro policies while line ministries formulate sectoral policies. The budget formulation process provides an indication about the economic policy making process: usually based on the macro-economic fiscal framework that defines the medium-term fiscal and macro objectives and gives aggregate expenditure and revenue levels expected in the next three years. Due to the lack of capacity within the public institutions, adequate policy analysis as well as effective follow-up and impact monitoring in the various economic and social sectors is limited.

Policy making process in Ethiopia is a government's domain (less space for private sector, CSOs/NGOs, farmers' institutions). Participation has been lacking but gradually emerging. In the coming second five years development plan (Growth and Transformation Plan, GTP) better consultation with a wide range of stakeholders (academia, CSO/NGO, private sector) has been conducted.

Despite progress, significant challenges remain in the policy formulation and analysis process, some of which are:

- There is less consideration given to taking evidences from grassroots (through development performance evaluations) in the policymaking process;
- There is a general lack of adequate and up-to-date database for policy formulation;
- There is a general lack of adequate analytical skill, models and knowledge;
- Limited or no informed debate among the various stakeholders; and
- Weak networking between the different stakeholders in policy formulation and implementation.

## 1.2 Objectives of reviewing the key national policies relevant to RWMS

The Challenge Program on Water and Food (CPWF) is a research and development oriented project being conducted by ILRI in collaboration with stakeholders in Ethiopia and abroad. Among several project components, the Nile Coordination and Multi-stakeholders Platform (Project 5) aims to review the key national policy changes with respect to Rain Water Management System in Ethiopia. In the broader perspective of natural resources management and use, several relevant policies have been adopted and being implemented. It may, however, be difficult to say that this or that policy changes occurred since policies have been adopted and under implementation over the last two decades as of early 1990s. Hence, this review considers relevant national policies and strategies that address rainwater management system in particular and land and natural resources in general.

The objective of this review is to assess the policy environment in terms of the existence or absence of supportive policy and institutions and enabling environment for the promotion of rainwater management. The Challenge Program on Water and Food aims at enhancing water productivity for better food security, poverty reduction as well as resilience in the agriculture and natural resources development and use. The broader objective is also improving livelihood through landscape approach to water management.

## 1.3 Scope of the review

The context of this key policy and strategy review is that:

- The review considers the broader perspective of natural resources management, development and use;
- There are several relevant policies and strategies that have been adopted and being implemented.

It may, however, be difficult to say that this or that policy changes occurred since policies and strategies have been adopted and under implementation over the last two decades. Hence, this review considers relevant national policies and strategies that address rainwater management system in particular and land and natural resources in general.

## 2 Policies and strategies relevant for rainwater management

### 2.1 The national water policy and strategy

One of the relevant sectoral policies to consider is the Water Resources Management Policy. It is based on socio-economic and environmental development policies as stipulated in the Constitution (MoWR 2002).

The overall goal of the national water resources management policy is: to enhance and promote all national efforts towards the efficient, equitable, and optimum utilization of the available water resources of Ethiopia for significant socio-economic development on sustainable basis.

According to the MoWR (2001) the objectives of the policy were:

- Development of the water resources of the country for economic and social benefits of the people, on an equitable and sustainable basis
- Allocation and apportionment of water, based on the comprehensive and integrated plans and optimum allocation principles that incorporate efficiency of use, equity of access, and sustainability of the resources
- Managing and combating drought as well as other associated slow-onset of disasters through efficient allocation, redistribution, transfer, storage and efficient use of water resources
- Combating and regulating floods through sustainable mitigation, prevention, rehabilitation and other practical measures
- Conserving, protecting and enhancing water resources and the general aquatic environment on sustainable basis.

A report by the MoWR and UNESCO (2004) on the Ethiopian National Water Sector Development also summarized some fundamental policy principles of the National Water Resources Management Policy. The principles are mentioned to be based on Dublin-Rio statements (1992). These principles were summarized as follows:

- Ethiopian citizens shall have access to sufficient water of acceptable quality to satisfy basic human needs. The policy gives top priority to drinking water supply over other uses;
- Water is both an economic and social good;
- Water resources development should be based on rural centred, decentralized management and participatory approaches. This focuses on promoting decentralized management, foster the participation of user communities and support community self initiatives in water resources management;

- Management of water resources shall ensure social equity, system reliability and sustainability;
- Integrated Water Resources Management is emphasized in the policy document and thus the policy recognizes the hydrologic boundary or basin as the fundamental planning unit and water resources management domain. Increasingly, river basin is emerging as a unit of management of land, water and other natural resources in an integrated fashion. The Water Sector Development Program as an instrument for implementing the water resources management policy too advocates the establishment of River Basin Authorities becoming an integral part of Ministry of Water Resources.

The Water Resources Management Policy is one among the key policies emphasized in economic development policy. To realize policy objectives, strategies were formulated that have emanated directly from the sector development policy and are consistent in indicating the ways and means of concretely implementing the policy objectives (MoWR 2002).

## 2.2 The national water sector strategy

The National Water Sector Strategy (2001) emphasized the need for integration of the water resources development and utilization with Ethiopia's overall socio-economic development objectives, and this to be guided by specific objectives at the federal and regional levels of the government. Alternative options for water resources development will be systematically evaluated, considering the alternative supply and demand options. In this regard, Ethiopia's Water Sector Strategy identifies 11 actions to develop water resources of the country. Rainwater harvesting is one of the actions identified by the strategy for the development of water resources of the country. The strategy stipulates rainwater harvesting through the construction of small check dams to meet domestic water supply and small-scale irrigation needs at the local level especially where wet season runoff can be stored and used for crop production. Check dams are mentioned as the most sustainable and cost effective technology that could be planned, implemented and managed with the involvement of local communities.

In terms of water resource management, the strategy stresses the need for maximizing water yields and quality through appropriate watershed management practices. The strategy also identifies the following four priority areas to improve water resources management capacity of the country:

- Ensure that water allocation is based on efficient use of water resources; takes into account special consideration of the needs of drought-prone and water-scarce areas; and gives the highest priority to water supply and sanitation.
- Promote appropriate watershed management practices to promote water conservation, maximize water yields, improve water quality, and reduce reservoir siltation.

- Coordinate the development and enforcement of appropriate mechanisms and standards to protect national water resources from pollution.
- Develop a coherent, efficient and streamlined process of information management in the water sector.

The strategy also promises for strengthening the institutional framework and establishing appropriate linkage and communication mechanisms to secure coordination of water resources development and management activities between the federal and regional governments.

To lay down the basis for sustainable development and management of water resources, the document underscores the need to establish effective institutions with decentralized management. The participation of user communities will also be fostered by establishing the appropriate institutional framework at the lowest administrative structure.

In terms of capacity building, the strategy promised to develop and implement capacity building programs at all levels (federal, regional, zonal, *woreda*, private sector and grassroot level) on the relevant areas of water resources management. The following actions form the main elements of the capacity building strategy.

- Assess technical capacity gaps; develop and implement training programs to bridge these gaps. Strengthen technical capacities of all stakeholders (public institutions, private sector, local communities etc.) in subjects such as: resource evaluation, resource management, resource monitoring, water management analysis, planning and design of schemes, O&M of schemes, contracts administration, financial management, information management, and monitoring systems etc.
- Provide means for high level professional and sub-professional manpower training locally and abroad, and encourage training of community promoters.
- Enhance skilled and craftsperson manpower training in all fields of water resources.
- Strengthen higher institutions like Addis Ababa University, Arba Minch Water Technology Institute and other universities and colleges in carrying out more training in various fields of water resources.
- Promote and encourage on-the-job training; training-by-rotation; short-term training and study tours; workshops and seminars etc. in different fields of water resources.
- Attract and retain able and experienced professionals and sub-professionals by providing incentives and conducive working environment.
- Provide essential equipment, instruments, tools, and other required facilities for water schemes, as well as equip laboratory facilities with precision instruments.
- Establish a training centre in the water sector.

As highlighted and discussed above, Ethiopia's water sector strategy lays down appropriate and essential guidelines on translating water sector policies into actions. The strategy also reveals the commitment of the country through the establishment of effective institutions to secure sound institutional basis for sustainable development and management of water resources.

Following the already identified and accepted strategy for water-resources management in the country, the water sector development policy (WSDP) was formulated for implementing the water resources management policy. The WSDP identifies priority intervention areas in a 15-year time horizon and includes priority projects identified through various sources. Major list of projects came from river-basin master plans, where resource potentials and their priority areas for long-term (30–50 years) interventions are identified on the basis of individual river basins. The WSDP, therefore, provides a fertile ground for the development of individual projects within its priority intervention areas.

## 2.3 Other policies and strategies relevant for rainwater management

There are other policies that have important role in enhancing water productivity for improving food security, poverty reduction as well as resilience in the agriculture and natural resources development and use.

### 2.3.1 The Agricultural Development Led Industrialization (ADLI) strategy

In the mid-1990s, the government of Ethiopia has adopted a broader national policy to address Ethiopia's food security and agricultural productivity challenges which is known as the Agricultural Development Led Industrialization (ADLI) strategy. The Agricultural Development Led Industrialization (ADLI) strategy is not only the government's overarching policy response to Ethiopia's food security and agricultural productivity challenge, but also a framework that helps to guide the national development direction. As indicated in PASDEP (MoFED 2006) the Agricultural Development Led Industrialization (ADLI) Strategy is among the pillars of sustainable development and poverty reduction programs.

With respect to the agricultural sector, ADLI covers important issues including:

- Improving the productivity of the smallholder farmers through better extension and input services;
- Promoting interventions that address the specific needs of the country's diverse agro-ecological zones;
- Commercialization of smallholder agriculture through product diversification and better market access;
- Facilitating a shift to the production of higher-valued crops including for export;
- Support for the development of large-scale commercial agriculture;

- The integration of farmers with domestic and external markets.

ADLI promotes the use of labour-intensive methods to increase production and productivity through the use of chemical inputs (fertilizers and crop protection chemicals), diversifying production, and utilizing improved agricultural technologies and practices. The strategy also emphasizes the importance of agro-ecological zones based development interventions to attain optimal development outcomes.

The specific policy measures that are devised to improve agricultural productivity and promote food security are: agricultural extension and research; agricultural export promotion; food security program; voluntary resettlement program; and productive safety net program (PSNP).

As one of the instruments designed to implement ADLI, the rural development strategy as a guide for the agricultural research and extension divides the country into three main/broad agro-ecological zones. These broad delineations provided by the Ministry of Agriculture include regions with adequate rainfall, moisture stress areas, and pastoral areas. In the regions that are categorized as having adequate rainfall, the focus is on exerting efforts to efficiently utilize available rainwater to attain a higher possible rate of agricultural development. One of the measures is through promoting irrigation in areas where it is feasible. In areas characterized with moisture stress, major interventions undertaken to improve food security focus on increasing off-farm income opportunities, and voluntary resettlement from the land-scare and low agricultural potential areas to areas having abundant land and better productive potential. In the drought-prone pastoral areas, special measures to be taken include enhancing specialization in livestock production and marketing through the provision of better access to water supply for the human and livestock consumption.

According to the rural development strategy, the role of the government will be to intervene in the areas where it (the government) would have a comparative advantage including setting the regulatory framework and standards, financing infrastructure (e.g. the rural roads and transport program), small-scale irrigation focusing on water harvesting at the household level, helping farmers build medium-scale irrigation on a cost-recovery basis, and construction of some multi-purpose dams that would support larger-scale irrigation, and others.

### 2.3.2 Sustainable development and poverty reduction strategy

The Ethiopian Sustainable Development and Poverty Reduction Strategy Programme was issued in July 2002. This strategy outlines the fundamental development objectives of the government of Ethiopia to build a free-market economic system that will enable the economy to develop rapidly, and the country to extricate itself from poverty and

dependence on food aid, where the poor people are the main beneficiaries of the economic growth (Aleazar 2010). The program recognizes the importance of environmental protection as a prerequisite for sustainable development and treats it as crosscutting issue. Accordingly, it points out three priority areas for action: strengthening and expanding on-going efforts to address land degradation, deforestation, overgrazing, soil erosion, loss of soil fertility and the disruption of the hydrological cycle, by giving special attention to highly degraded, drought prone and food insecure areas; strengthening regulatory and institutional capacity; and strengthening the measures currently under implementation to preserve, develop, manage and sustainably use biodiversity resources.

### 2.3.3 Agricultural and rural development policies and strategies

One of the policy frameworks provided by the Ethiopian government to transform the smallholder agriculture in particular and agriculture and rural development in general is the 'market-based smallholder agriculture development' or 'commercialization of the smallholder farms'. The government's *'Rural Development Policies, Strategies and Measures'*<sup>1</sup> was provided in November 2002. This document elaborates and is based on the Agricultural Development Led Industrialization (ADLI) strategy adopted in 1994/95.

The elements and principles upon which the Rural Development Policy and Strategy is based are well elaborated in the document. The major elements of the policy and strategy are the following:

- To attain fast and sustainable growth agricultural development must be market-led: This argument stresses the fact that smallholder farmers should produce marketable surplus than needed for own consumption where income from sales will be used to purchase industrial consumer goods. In return a demand for non-farm consumer goods provides incentive to increase marketable surplus in quantity and quality. The demand for industrial consumer goods is also expected to promote inter-sectoral linkages. The strategy envisages agro-ecological zone based production differentiation presupposing that if a development package particularly suited to each agro-ecological zone is prepared and implemented, the benefits accruing to the people can be maximized. Specialization and division of labour in the various regions will be enhanced.
- Creation of an agriculture that produces goods needed by the market: The strategy envisages that Ethiopia will have a market-led agricultural sector especially the international market (p. 155). The document strongly emphasis that agricultural development should be essentially market-driven and target both the domestic and export market outlets. Every agricultural production operation should be able to produce marketable surplus of acceptable quality at competitive prices. The market-led

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1. The Amharic version of the document published by the Press and Operation Division of the Ministry of Information is available.

production system is also expected to shift to producing high value and competitive products for export. As stated in the PRSP document (MoFED 2002), alongside enhancing productivity, there is also a need for broadening the scope for farmers to switch from low priced commodities to high priced commodities to insulate themselves from price volatility on international markets. This calls for enhancing production based on marketability, and competitiveness via minimizing production and input costs.

The basic principle in producing competitive products is increasing productivity and reducing cost of production. Attainment of such a market-led farm development goal also needs a change in agricultural research and extension working methods and capacity.

- Continuous improvement of agricultural market system: Efficient and effective agricultural marketing system is a prerequisite for higher productivity and low-cost agricultural production system. The Rural Development Policy and Strategy document outlines that creation of an efficient and effective marketing system needs the following improvements—creation of quality standards, improved market information system, expansion and strengthening of marketing cooperatives, improved participation of the private sector in agricultural markets.

Relevant to the aspects of natural resources and environment development, in the context of combating desertification and mitigating the effects of drought, the most relevant principles of this policy and strategy are: improving farming skills; improving the supply, replication and dissemination of technologies; ensuring access to land and tenure security; resolving problems of drought prone regions; improving the agricultural marketing systems; promoting rural finance; developing the rural energy sector and rural telecom development (Aleazar 2010).

#### 2.3.4 Plan for Accelerated and Sustained Development to End Poverty (PASDEP)

Poverty and food insecurity have been Ethiopia's chronic social and economic problems. These challenges still remain to be the central policy concerns to the government of Ethiopia. Although tremendous efforts and progress have been made over the past couple of decades Ethiopia is still characterized among the poorest developing countries. Annual per capita income increased to over 250 USD. The current Ethiopian government has made the eradication of hunger and reduction of poverty its prime goal and focus of the national development efforts. To that end a series of Poverty Reduction Strategies were planned and implemented during the last decade. The latest version of the PRSPs is the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) which was implemented over the five years period (2005/06–2009/10). The conclusion of PASDEP gave rise to its second phase (second Five Years Plan), known as the Growth and Transformation Plan (GTP).

The PASDEP was a five-year (2005/06–2009/10) strategic framework that was built on the key directions pursued under sustainable development and poverty reduction plan (SDPRP) but it also embodied some new directions including a major focus on growth with particular emphasis on commercialization of agriculture, private sector development, and the scaling up of resources to achieve the Millennium Development Goals (MDGs).

## 2.4 Environmental and climate change related policies

Environment and natural resources are the basis for social and economic development being the sources of goods and services needed for poverty reduction and economic growth. Ethiopia has climate change related policies and policies that are meant to ensure environmental sustainability.

Leading to a reduction of the environment and natural resources ability to produce biomass needed for food, raw materials, feed and household energy, environmental and natural resources degradation threatens physical and economic survival. Degradation undermines prospects for poverty reduction and attaining sustainable development. Hence, combating or reversing environmental and natural resources degradation and poverty eradication are mutually reinforcing interventions. The Ethiopian development endeavours need to be able to integrate these two critical concerns.

Over the past couple of decades the Ethiopian government has established a macro-economic policy and strategy framework as well as sectoral development policies and strategies. Environmental sustainability is well recognized in the national constitution and the national economic policy and strategy as a key prerequisite for a sustainable socio-economic development. The Ethiopian environmental policy was provided in 1997.

The overall goal of the environmental policy is 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.

In terms of specific objectives, the policy seeks to attain the following:

- Ensure that essential ecological processes and life support systems are sustained, biological diversity is preserved and renewable natural resources are used in such a way that their regenerative and productive capabilities are maintained and, where possible, enhanced so that the satisfaction of the needs of future generations is not compromised; where this capability is already impaired to seek through appropriate interventions a restoration of that capability;

- Ensure that the benefits from the exploitation of non-renewable resources are extended as far into the future as can be managed, and minimize the negative impacts of their exploitation on the use and management of other natural resources and the environment;
- Identify and develop natural resources that are currently underutilized by finding new technologies, and/or intensifying existing uses which are not widely applied;
- Incorporate the full economic, social and environmental costs and benefits of natural resource development into the planning, implementation and accounting processes by a comprehensive valuation of the environment and the services it provides, and by considering the social and environmental costs and benefits which cannot currently be measured in monetary terms;
- Improve the environment of human settlements to satisfy the physical, social, economic, cultural and other needs of their inhabitants on a sustainable basis;
- Prevent the pollution of land, air and water in the most cost-effective way so that the cost of effective preventive intervention would not exceed the benefits;
- Conserve, develop, sustainably manage and support Ethiopia's rich and diverse cultural heritage;
- Ensure the empowerment and participation of the people and their organizations at all levels in environmental management activities; and
- Raise public awareness and promote understanding of the essential linkages between environment and development.

The Environmental Policy of Ethiopia emphasizes the need for arresting land degradation. The policy's section on Soil Husbandry and Sustainable Agriculture, Forest Resource, Biodiversity Resources, Water Resource, Energy and Mineral Resource address the issue of combating desertification and climate change (Aleazar 2010).

The policy has several key sectoral environmental policies. These are policies with respect to soil husbandry and sustainable agriculture; forest, woodland and tree resources; genetic, species and ecosystem biodiversity; water resources; energy resources; mineral resources; human settlement, urban environment, and environmental health; control of hazardous materials and pollution from industrial waste; atmospheric pollution and climate change; and cultural and natural heritage. The environmental policy also consists of other policies in some crosscutting areas. These are population and environment; community participation and environment; tenure and access rights to land and natural resources; land use plan; social and gender issues; environmental economics; environmental information system; environmental research; environmental impact assessment (EIA); and environmental education and awareness.

Among these key components of Ethiopia's sectoral Environmental Policy, three could be seen as being very relevant to the Challenge Program on Water and Food (CPWF).

- soil husbandry and sustainable agriculture,
- water resources, and
- land use plan

#### 2.4.1 Soil husbandry and sustainable agriculture

This policy aims:

- To foster a feeling of assured, uninterrupted and continuing access to the same land and natural resources on the part of farmers and pastoralists so as to remove the existing artificial constraints to the widespread adoption of, and investment in, sustainable land management technologies;
- To base, where possible, increased agricultural production on sustainably improving and intensifying existing farming systems by developing and disseminating technologies which are biologically stable, appropriate under the prevailing environmental and socio-cultural conditions for farmers, economically viable and environmentally beneficial;
- To promote the use of appropriate organic matter and nutrient management for improving soil structure, nutrient status and microbiology in improving soil conservation and land husbandry;
- To safeguard the integrity of the soil and to protect its physical and biological properties, through management practices for the production of crops and livestock which pay particular attention to the proper balance in amounts of chemical and organic fertilizers, including green manures, farm yard manures and compost;
- To promote effective ground cover as one of the most important factors in soil erosion control, taking advantage of the wide range of sustainable agronomic, pastoral and silvicultural approaches used in various areas of Ethiopia as potentially flexible alternatives to mechanical soil conservation systems;
- To promote in drought-prone and low rainfall areas water conservation which is as important as physical soil conservation for more secure and increased biomass production, including crop production;
- To ensure that, for reasons of cost and acceptability, improvements in land husbandry are made with an appreciation of existing husbandry systems, technologies and knowledge;
- To ensure that, given the heterogeneous environment of the Ethiopian highlands, agricultural research and extension have a stronger focus on farming and land use systems and support an immediate strengthening of effective traditional land management systems;
- To promote, for the relatively more environmentally uniform Ethiopian lowlands, a long-term approach to agricultural research programs to develop appropriate farming and land management systems that yield high outputs;

- To ensure that planning for agricultural development incorporates in its economic cost–benefit analysis the potential costs of soil degradation through erosion and salinization as well as soil and water pollution;
- To ensure that inputs shall be as diverse and complementing as the physical, chemical and biological components of the soil require, and shall not focus solely on a quick and transitory increase in plant nutrients to the long-term detriment of soil structure and microbiology;
- To institute the stall feeding of domesticated animals through a combination of providing agricultural residues, on-farm produced forage and fodder as well as the cutting and carrying of grass and browse from meadows and hillsides to encourage revegetation of grazing lands and the reduction of soil erosion;
- To develop forestry on the farm, around the homestead and on eroding and/or eroded hillsides to increase the stock of trees for fuelwood, construction material, implements and crafts, for forage and for other tree products;
- To shift the emphasis in crop breeding from single line plant varieties and animal breeds to multiple lines involving as many different but adapted lines as possible to increase both plasticity in adapting to environmental variations, and resistance to pests and diseases;
- To use biological and cultural methods as well as resistant or tolerant varieties or breeds, pheromones or sterile male techniques in an integrated manner as a pest and disease management method in preference to chemical controls;
- To safeguard human and environmental health by producing adequate regulation of agricultural (crop and livestock) chemicals;
- To use the precautionary principle in assessing potentially damaging impacts when taking decisions that affect social and economic conditions, natural resources and the environment, especially in the pastoral areas, which are perhaps the least studied in the country;
- To ensure that new technical recommendations are compatible with existing pastoral and agricultural systems, agro-ecological conditions and the prevailing socio-economic environment; and
- To undertake full environmental, social and economic impact assessments of all existing irrigation schemes in the rangelands and wherever needed establish programs of correcting their negative environmental, social and economic impacts.

#### 2.4.2 Water resources

With regard to water resources, the Environmental Policy of Ethiopia highlights the following issues:

- To ensure that the control of environmental health hazards be a necessary condition in the design, construction and use of dams and irrigation systems;

- To recognize that natural ecosystems, particularly wetlands and upstream forests, are fundamental in regulating water quality and quantity and to integrate their rehabilitation and protection into the conservation, development and management of water resources;
- To ensure that any proposed introduction of exotic species into water ecosystems be subject to detailed ecological studies and environmental impact assessment;
- To promote the protection of the interface between water bodies and land (e.g. lake shores, river banks and wetlands);
- As most large- and medium-scale irrigation potential is located in the rangelands of the lowlands occupied by pastoralists, to consider the opportunity costs of irrigating important dry season grazing areas of the pastoralists for crop production and make a cost-benefit analysis of such irrigation projects;
- To involve water resource users, particularly women and animal herders in the planning, design, implementation and follow up in their localities of water policies, programs and projects so as to carry them out without affecting the ecological balance;
- To subject all major water conservation, development and management projects to the environmental impact assessment process and to include the costs and benefits of protecting watershed forests, wetlands and other relevant key ecosystems in the economic analysis of such water projects;
- To promote, through on-site training, effective water management techniques at the farm level for improved performance of medium- to large-scale irrigation schemes;
- To promote, to the extent possible, viable measures to artificially recharge ground and surface water resources; and
- To recycle waste water when it has been found to be safe for health and the environment or when it has been made safe without entailing high cost.

### 2.4.3 Land use plan

The policy aims is to ensure that federal, regional and community strategic land use plans (SLUP) define broad land use and land user categories together with generalized resource management recommendations which can then be used to guide the formulation of detailed local resource use and management plans by individuals or communities as the case may be. The Ethiopian government has designed some response to the complex problems of environment (land degradation, climate vulnerability, indoor air pollution, water pollution etc.). The responses include primarily the formulation and approval of the Environmental Policy of Ethiopia (EPE), establishing an Environmental Protection Authority (EPA), prepared a Climate Change National Adaptation Plan of Action (NAPA), formulated the national action plan to combat desertification, and addressed environmental issues in the Plan for Accelerated and Sustained Development to End Poverty (PASDEP), in the

Sustainable Development and Poverty Reduction Program (SDPRP) as well as in the Rural Development Policy (Emelie et al. 2008).

In their paper entitled 'Ethiopia environment and climate analysis', Emelie et al. (2008) commented that although the government has taken important steps to address the key environmental challenges, there is a significant gap between the official commitments and objectives, and practices on the ground. They noted that the environment and climate change issues become particularly troublesome since Ethiopia is one of the most vulnerable countries in Africa to climate change with the least capacity to respond and adapt to the risks associated with it. The authors recommended that reforms and interventions are necessary in a large set of areas and sectors. It is indicated that, first and foremost, there is a pressing need to formulate and implement *adaptation action plans for key sectors* and to develop and implement specific programs and projects addressing the risks associated with climate change. Secondly, there are needs to develop the capacity in environmental education and awareness.

The authors emphasize that many of the local environmental issues can only be effectively addressed by the poor people themselves given that they have/are provided with an understanding of the issues. Short- and long-term training needs in areas such as climate modelling, climate change detection, and climate vulnerability and adaptation assessment are needed at all levels from national to local. Raising awareness within key ministries and government agencies with respect to the following is essential: (i) the costs of environmental degradation, (ii) the benefits of sound environmental management, and (iii) designing and implementing economic policy instruments for pollution mitigation and cost-effective natural resource exploitation.

The Environmental Impact Assessment (EIA) guideline is also one of the frameworks that enable the assessment and mitigation of environmental impacts of development activities, especially programs and projects. However, it is quite often heard that despite the existence of environment impact assessment requirements, adequate attention is not given to projects, including investment projects, to assess their implications on the environment. There are development projects that affect water resources and its sustainable use. Negative environmental effects can arise including aggravation of soil erosion and the incidence of water-borne diseases following dam and irrigation development, water and environment pollution due to improper application/use of nutrient and agrochemicals, and water-logging of land. Overgrazing or farming can lead to soil erosion and land degradation. Groundwater contamination can also occur due to untreated sewage.

## 2.5 Participation of NGOs/CSOs in development activities

The participation of many NGOs/CSOs in the various socio-economic development programs in Ethiopia has been supported by relevant policies that allow and facilitate their establishment and operation. Many NGOs/CSOs are active in the areas of land and natural resources development. Among many of them, Forum for Sustainable Land Use (SLUF), SoS-Sahel Ethiopia, Agri-Service Ethiopia, CHF International, and others can be mentioned.

In its development programs in Ethiopia, namely generating income and building independence (GEBI) program CHF International has been working focusing on improving water resource security by increasing the communities' access to water and optimizing the utilization of existing water resources. Methods used widely include:

- improving watershed management to conserve natural resources in sloping terrains;
- developing rain-water run-off collection systems and water-harvesting ponds;
- providing surface pumps to ease kitchen gardens irrigation;
- introducing water-drawing and abstraction systems (such as treadle pumps) for both;
- irrigation and consumption;
- providing fruit-trees to 20,000 households to increase income through vegetable gardening;
- teaching farmers about terracing methods to prevent water run-off, and natural spring and habitat preservation for long-term security;
- providing engines to draw water from deep-gorge rivers for irrigation of increased and more diversified agricultural products.

CHF International country program for Ethiopia reported that through this GEBI program more than 100,000 villagers will have increased water security, 80,000 households will have improved access to potable water with considerably reduced travel time and 20,000 households will increase income through vegetable gardening.

There are several multilateral and bilateral donors supported programs that are directly or indirectly relevant for rainwater management in Ethiopia. Foreign policies and strategies are useful to attract and effect such development programs and partnership. For example, the Sustainable Water Harvesting and Institutional Strengthening in Amhara Region of Ethiopia (SWHISA) has been supported by the Canadian CIDA.

## 2.6 Energy sector policies and strategies

Energy is one of the key inputs for socio-economic development. Hence, there is a need for the development of energy policy to help guiding the formulation and implementation of energy sector policy. The National Energy Policy of Ethiopia was developed in 1994. The policy, in its preamble, emphasizes the fact that Ethiopia's energy consumption is

predominantly based on biomass energy sources, and an overwhelming proportion (94%) of the country's energy demand is met by traditional energy sources. It also stresses that the most important issue in the energy sector is the supply of household fuels, which is associated with massive deforestation that results in land degradation. The policy document also cites figures on the various potential energy sources. It, however, acknowledges that the country could not be able to develop, transform and utilize these resources for optimal economic development.

**The rationale for the policy:** considering that energy is critical for economic development, it is indicated that the need for energy policy is driven by the following rationale:

- To develop and utilize the country's energy resources on the basis of Ethiopia's overall development strategy priority along with the introduction of energy conservation and efficiency strategy;
- To support other economic sectors to meet their development objectives by putting in place a clearly defined energy policy;
- To save scarce foreign exchange resources and to ensure that energy is efficiently utilized;
- To ensure reliable and secure energy supplies to cushion the economy from external and internal disruptions of supply as well as price fluctuations;
- To change the current energy production and utilization practices and ensure that energy development is based on sound management practice and is benign to the environment;
- To formulate comprehensive energy prices to ensure financial and economic profitability;
- To ascertain what energy technologies and equipment are appropriate for and compatible with the country's economic development needs; and
- To raise the efficiency of the energy sector and develop the necessary institutional and manpower capabilities by introducing appropriate incentive measures, to undertake energy development programs.

**Policy objectives:** the general objectives of the energy policy are:

- To ensure a reliable supply of energy at the right time and at affordable prices, particularly to support the country's agricultural and industrial development strategies adopted by the government;
- To ensure and encourage a gradual shift from traditional energy sources use to modern energy sources;
- To streamline and remove bottlenecks encountered in the development and utilization of energy resources and to give priority to the development of indigenous energy resources with a goal towards attaining self sufficiency;

- To set general guidelines and strategies for the development and supply of energy resources;
- To increase energy utilization efficiency and reduce energy wastage; and,
- To ensure that the development and utilization of energy is benign to the environment.

**The priorities of the policy:** the energy sector policy has set some priority areas. These are:

- To place high priority on hydropower resource development, as hydrological resources are Ethiopia's most abundant and sustainable energy forms;
- To take appropriate policy measures to achieve a gradual transition from traditional energy fuels to modern fuels;
- To set, issue and publicize standards and codes which will ensure that energy is used efficiently and properly;
- To develop human resources and establish competent energy institutions;
- To provide the private sector with necessary support and incentives to participate in the development of the country's energy resources; and
- To pay due and close attention to ecological and environmental issues during the development of energy projects.

**Energy sector strategy:** The Ministry of Mines and Energy (MME) has developed a five year strategic plan for mines and energy subsectors for the period 2006 to 2010 (MME 2007). The strategy document thoroughly discussed the general status of the development of the two subsectors, the challenges, the institutional mandates, the visions, missions and goals of the MME. It also discussed the backgrounds of the strategic plan, development programs, implementation capacities in mines and energy subsectors. The strategic plan document contained a detailed account of the program implementation strategies for the major subsectors in the energy, i.e. for the electric industry, electric service supply regulatory works, the National Petroleum Depot, and the Rural Energy Development and Promotion (MME 2007).

**Gaps in the energy policy:** The energy policy is now 17 years old (it was provided in 1994). In the face of the changing and emerging complex challenges and opportunities in the national development context (increasing energy demand) and global arena (international energy crises, price instability and escalation), the policy should have been updated to take account of these facts. The other major comment that is raised is the fact that despite good policy intentions and the huge energy resources potential, the development in the energy sector have not been to the level expected. In recent years remarkable moves have been made in launching new energy projects especially in hydropower some of which have been completed. Diversification of energy sources is still a long way to go. The low progress in energy sector development could be attributed to several factors including lack of adequate capital, implementation capacity, lack of

implementation guidelines, weak program and project monitoring and evaluation, to mention some.

**Irrigation policy:** The overall objective of the Ethiopian irrigation policy is to develop the immense irrigated-agriculture potential for the production of food crops and raw materials needed for agro-industries, in an efficient way and on a sustainable basis without degrading the fertility of the production fields and water resources base.

The national irrigation policy has several objectives some of which are indicated below:

- Development and enhancement of small-scale irrigated agriculture and grazing lands for food self-sufficiency at the household level.
- Development and enhancement of small-, medium- and large-scale irrigated agriculture for food security and food self-sufficiency at national level including export earnings and to satisfy local agro-industrial demands.
- Promotion of irrigation study, planning and implementation on economically viable, socially equitable, technically efficient, environmentally sound basis as well as development of sustainable, productive and affordable irrigation farms.
- Promotion of water use efficiency, control of wastage, protection of irrigation structures and appropriate drainage systems.
- Ensuring that small-, medium- and large-scale irrigation potential projects are studied and designed to a stage ready for immediate implementation by private and/or the government at any time.

## 2.7 The Ethiopian Strategic Investment Framework for Sustainable Land Management (ESIF/SLM)

The Ethiopian Ministry of Agriculture in collaboration with donors has recently designed an Investment Framework for Sustainable Land Management (ESIF/SLM) (MoA 2010). It is reported that for the last two years the ministry has been analysing the challenges of sustainable land administration and management and contemplating on how to resolve them effectively, recognizing that the task is enormous, requiring some time and a lot of resources. It was also mentioned that donor support to the government's development effort in land administration and sustainable land management has been *ad hoc*, uncoordinated and scanty, minimizing its impact.

To improve this situation and support the efforts in implementing sound and sustainable land management, the government, in partnership with development partners has developed a strategy known as the Ethiopian Strategic Investment Framework for Sustainable Land Management (ESIF/SLM). The ESIF/SLM provides a holistic and integrated strategic planning framework under which government, development partners and civil

society stakeholders can work together to remove the barriers, and overcome the bottlenecks, to promote and scale-up sustainable land management in Ethiopia. The ESIF/SLM calls for an alternative approach based on multi-sectoral partnerships in which the different stakeholders seek to harmonize and align their investments in a collaborative manner with the aim of alleviating rural poverty through restoring, sustaining and enhancing the productive capacity, protective functions and biodiversity of Ethiopia's natural ecosystem resources. The government unveiled the ESIF/SLM to its development partners in September 2008 and obtained widespread support as the umbrella framework for implementation of the six independent but interrelated sustainable land management components:

- **Component 1:** Investment in field based projects and programs for promoting and scaling-up sustainable land management (SLM);
- **Component 2:** Improving the administration and tenure of Ethiopia's land resources;
- **Component 3:** Building the capacity of public and private sector SLM advisory and other support service providers;
- **Component 4:** Improving the enabling policy, legal, institutional and financial environment for SLM;
- **Component 5:** Building the ESIF/SLM knowledge base; and
- **Component 6:** Management and implementation of the ESIF/SLM.

Over the last several years, the development in land administration system has been one of the major areas of intervention in agriculture and rural development in Ethiopia. The Ministry of Agriculture (MoA 2010) reported that a number of policies, legislative and administrative initiatives have been taken by the federal government and the regional states of Amhara, Oromia, SNNP and Tigray to enhance rural land tenure security so that farmers obtain incentives to conserve and invest in land resources to increase farm productivity.

MoA's report elaborated that the Federal Rural Land Administration and Land Use Proclamation No. 456/2005 that replaced Proclamation No. 89/1997 reaffirmed ownership of rural land to the state. However, it confers indefinite tenure rights, i.e. rights to property produced on land, to land succession and to land leasing. The proclamation makes provisions for the registration and certification of land use rights. It also bans further land redistribution, except under special circumstances. The four regional states of Amhara, Oromia, SNNP and Tigray have also revised their own rural land proclamations and regulations to conform to the federal Proclamation No. 466/2005. The Afar regional state has formulated and enacted its rural land proclamation in 2008. Beneshangul-Gumuz and Somali regional states are in the process of formulating their land policies.

It is reported by MoARD that the first level rural land holding certificates have been issued by the four regional states of Amhara, Oromia, SNNP and Tigray regional states covering a

substantial part of landholdings (84% Amhara, 45% Oromia, 51% SNNP and 99.6% Tigray). Second level certification has been conducted in these regions with external assistance of SIDA and USAID on a pilot basis. These initiatives have significantly improved rural land tenure security among farmers. Compared to the period before 1998, farmers now feel more secure about possession and use of their land and have turned away from short-term exploitation of land to long-term conservation and use. The effects of the land administration system initiatives on farmers' behaviours and practices are indicated as follows:

- increasingly applying soil and water conservation measures;
- planting trees and perennial crops;
- increasing intensive production by irrigating their land and applying fertilizers, manure and compost;
- are more willing to rent out portions of their land and to share-crop, thus contributing to the development of the land rental market;
- women are gaining more say and rights on access to land and decisions on rural land;
- although land disputes increased during adjudication of land during first level registration and certification, there is a significant reduction in land disputes after these were settled (in some *woredas* reported court cases have dropped from 70% to <20%); and
- cadastral-based modern method of land certification seems to enhance farm households' confidence and security in tenure of their land holdings.

### 2.7.1 Outstanding challenges in land administration

Despite these effects and advances made, it is acknowledged that there are still important outstanding challenges with regard to the land administration and management in Ethiopia. These are categorized in to three as follows:

**Policy challenges:** The current land administration and land use laws were crafted with mainly sedentary highland farming areas in mind; hence they have only limited applicability to pastoral areas that are predominantly characterized by communal land tenure systems. Rural land policies and laws appropriate to the land tenure systems of pastoral areas need to be developed and implemented. Furthermore, regulations and guidelines also need to be issued for dispute resolution and rural land expropriation and compensation, respectively. The limitation of current land administration and land use policy and legislation need to be reviewed with a view to revise these as appropriate.

**Institutional challenges:** Weak institutional capacity at both federal and regional levels due to insufficient number of professional staff and frequent staff turnover remain a major challenge in implementing land reform programs. Improving organizational structure and

status, and building professional capacity of federal and regional land administration agencies in the fields of land registration, cadastral surveying, land law, communication, land valuation and compensation are needed for efficient service delivery and successful scaling-up efforts in the four regional states of Amhara, Oromia, SNNP and Tigray, and to initiating new work in the Afar and Somali regional states. There is little research being conducted on land administration and land use planning in any of the universities. In the sphere of land use planning, existing institutional framework and manpower both at the federal and regional levels is not commensurate to the task of undertaking land use planning.

**Technical challenges:** There are a number of technical issues that need to be resolved for implementing sustainable cadastral surveying and mapping and registration for rural lands. These include lack of adequate surveying and mapping infrastructure at the national level and lack of standardized methodologies for surveying and registration procedures. Although various methodologies have been tried and tested, a standardized national system of land registration and coding parcels has not been adopted and a national digitized land information system to facilitate compilation and exchange of land information among and between regions and federal entities has not been developed. Land registers recorded during the first level land certification are mostly not updated, divorcing records in the file from reality on the ground and eroding the credibility of the land registers with the passage of time.

## 2.8 The Agricultural Growth Program (AGP)

The Ministry of Agriculture has designed a new agricultural development program called Agricultural Growth Program (AGP). The development objective of the proposed AGP is to increase productivity in a sustainable manner, strengthen marketing and facilitate value addition of selected livestock and crop products in targeted areas with due attention to women and youth (MoARD 2009). It was estimated that AGP will cost about USD 300 million. This is allocated as, with flexible use, 53% for promotion of agricultural production and commercialization (component I), 35% for infrastructural development (component II), 7% for program management and monitoring and evaluation and 5% for contingency. Among the major components of AGP, the following have a very direct relevance to CPWF.

### 2.8.1 Small-scale agricultural water management

The overall objective of this subcomponent is to enhance agricultural water security situation of the rural population in the selected project *woredas* for enhancing agricultural productivity and increasing cropping intensity through the use of improved water storage,

conveyance, lifting and application technologies related to surface, ground and rainwater management.

Therefore, this subcomponent would finance demand-based investments in agricultural water management to improve social and economic activities that would enhance agricultural productivity in each *woreda*. Investment under this component would include: (i) small-scale irrigation infrastructures development; (ii) water harvesting schemes; (iii) irrigation water use and management; and (iv) watershed management.

### 2.8.2 Small-scale irrigation infrastructures development

It is aimed at increasing irrigation based agricultural production through the development and improved utilization of surface, and subsurface sources of water. It is envisaged to provide support to expansion and development of irrigation infrastructures to increase efficiency of water use and area coverage of irrigated agriculture. This subcomponent will finance the following activities: (a) upgrading of traditional schemes; (b) rehabilitation of malfunctioning and partially functioning of existing small-scale irrigation schemes; (c) design and construction of new SSI schemes such as micro-dams, gravity and pump diversions, and ground water development (shallow wells up to 50 m depth); and (d) institutional capacity building in terms of training and provision of survey equipment and drilling rigs.

### 2.8.3 Water harvesting and micro-irrigation technologies

This subcomponent would promote the use of simple, sustainable, demand-driven, and low cost targeted interventions for rainwater harvesting, lifting and application technologies including: (a) community ponds; (b) household ponds and tanks; (c) hand dug wells; and (d) supply of portable diesel irrigation pumps, mechanical pumps, family drip systems and the like, (e) ground water recharges structures; and (f) capacity building including training of farmers and experts.

The project would finance purchase of industrial materials required for the construction of water storages and conveyances, water lifting units and irrigation equipments including skilled human power on credit terms as individual or as groups. The project would also provide start up spare parts and hand tools which are important for operation and maintenance. The benefiting communities would be required solely to provide local construction materials and their labour force and to foresee the operation and management (O&M) of the structures. The availability of fund will be based on the provision of local materials and readiness for construction. Therefore, besides offering orientation and sensitization about the benefits and impacts, building the capacity of beneficiaries would be an essential component of the project intervention for proper implementation, operation and management of recommended technologies. This includes providing training in the

areas developing hand dug wells, installation of micro-irrigation systems, operation and maintenance of equipments and management of irrigated agriculture.

Presently, there is critical shortage of skilled labour in water development in the rural areas. Therefore, a proposed strategy to curb the problem would be providing skill capacity building for the local people and produce adequate 'water technicians'. To this effect, willing and committed individuals from each *woreda* will be first selected and provided with practical training in the methods of construction of water structures and management. These individuals, then, will be involved in the construction of SSI schemes, and water harvesting structures including maintenance of the schemes right from the commencement of the program. In addition, to resolve the problem of skilled labourers for maintenance of micro-irrigation technologies especially pumps, willing and committed individuals from the *woreda*/community are selected and practically trained in the techniques of installation, operation and maintenance. Intensive training is also required for the development agent.

After having adequate knowledge and skill, these individuals gradually are encouraged to be formally organized and be legally registered to provide technical services for the rural communities in irrigation construction and maintenance. A strong group can enter into contract agreement with the community for construction and maintenance of SSI irrigation schemes. The support to these individuals could be in terms of credit from the micro-finance institutions.

#### 2.8.4 Irrigation water use and management

This subcomponent will support enhancing rural capacities in water use and management in conjunction with water development for agriculture. Increasing irrigated agriculture productivity through provision of improved irrigation water application and scheduling technologies; and introduction of better agronomic practices in the existing and newly constructed small-scale irrigation schemes and water harvesting structures will be the key areas of intervention. The activities to be financed include: (a) introduction of improved irrigation water management technologies and production practices through on-farm demonstrations; (b) establishing and strengthening of irrigation water users association (IWUA) to enable the communities to effectively implement improved method of managing the available water resource, settle disputes over the water use conflicts, and proper record keeping; (c) more effective provision of key technical support services for irrigated agriculture; (d) provision of simple technologies and techniques to measure soil moisture and evaporation at field level to optimize crop yields through appropriate irrigation application; and (e) provide capacity building through training of farmers and DAs in effective irrigation water management and agronomic practices.

Short- and long-term trainings for experts at all levels including experience sharing tours in the field of irrigation water management, and irrigation agronomy will also be financed through this subcomponent to assure the sustainability of the outcomes of the program.

### 2.8.5 Soil and water conservation

The objective of this subcomponent is to support scaling up of best watershed management practices and technologies for smallholder farmers in the high potential areas that are increasingly becoming vulnerable to land degradation and food insecurity. This subcomponent would focus on increasing irrigated agriculture productivity by reducing soil erosion and improving *in situ* moisture conservation through construction of SWC activities on cultivated private lands and communal lands. It will also finance gully rehabilitation, area closure, plantation of multipurpose trees etc. It will also support ground water recharge interventions in areas where ground water development is being undertaken. The following are the major components of soil and water conservation programs of the AGP:

- ***Farmland and homestead development:*** The objective of this subcomponent is to reduce soil erosion and improve agricultural productivity on individual farmland and homestead. This objective would be achieved through interventions such as applying physical and biological soil and water conservation measures as well as undertaking value adding and income generating activity including horticulture, bee-keeping, animal fattening, dairy and poultry around homesteads and plots proximate to homesteads thereby restoring and sustaining soil fertility and improving water use efficiency in smallholder farming systems. While considered an essential part of the overall watershed management, these measures would have mostly private benefits and some public environmental benefits. Therefore, the program would finance 25% of the total costs (in the form of seeds, seedlings, technical advisory services) and the intended beneficiaries would cover the cost of the remaining 75% in the form of labour and cash from their own resources or access the credit scheme under the government's agricultural household extension packages or micro-finance institutions that are widely available in rural Ethiopia.
- ***Communal land and gully development:*** The objective of this subcomponent is to stabilize hillsides, degraded communal lands and gullies through specific, locally appropriate, physical and biological measures. Degraded communal lands and hillsides would be treated through a broad range of management practices and technologies that have proven to be financially, ecologically, and socially viable under local conditions. They would include measures and interventions such as terracing, forage contour bunds, reforestation/afforestation, and deep-trenching etc. This subcomponent would be integrated to small-scale irrigation infrastructure and water harvesting schemes. In areas where SLM is working, this subcomponent will be coordinated and linked to the existing SLM project and practice.

### 3 Policy gaps and changes needed

In Ethiopia several important national and sectoral policies have been developed and adopted. However, five major challenges are quite often mentioned with respect to policy implementation. These are:

- In many instances, policy implementation guidelines, laws and regulations are lacking;
- There is a general lack of policy implementation capacity at all levels;
- There is a general lack of proper policy implementation, monitoring and evaluation;
- Policies are made without adequate assessment and drawing lessons of existing/old policies (strategies); and
- Policy coordination and integration (across sectors) is a challenge.

In Ethiopia, there are some main problems that are witnessed in the policy formulation and analysis. Some of these problems and shortcomings relate to:

- less consideration given to taking evidences from grassroots and (through development performance evaluations);
- a general lack of adequate and up-to-date database for policy formulation;
- lack of adequate analytical skill, models and knowledge;
- the absence of informed debate among the various stakeholders to feed into policy formulation and planning; and
- weak networking between the different stakeholders in policy formulation and implementation.

## 4 Summary

Several national economic and sectoral policies and strategies were developed, adopted and being implemented over the last couple of decades in Ethiopia. These policies and strategies provide frameworks and guides for economic management in a wide range of aspects. There are policies that support and lay a good ground for the development and implementation of RWM interventions. These policies are general like the ones that affect the agricultural sectoral development and specific ones that are important for water sector, environment and natural resources.

Five major challenges are quite often mentioned with respect to policy implementation. These are the fact that policies are made without adequate assessment and drawing lessons of existing/old policies (strategies); lack or absence of policy implementation guidelines, laws and regulations; a general lack of policy implementation capacity at all levels; a general lack of proper policy implementation, monitoring and evaluation system that could feed into policy refinement and adjustment; and the challenge of policy coordination and integration (across sectors).

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