

OVERVIEW AND ANALYSES OF INSTITUTIONAL CAPACITY FOR IWRM IN AWASH RIVER BASIN, CENTRAL ETHIOPIA



BASELINE REPORT

BY: TEGENU ZERFU



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Acronyms

AAEPA	Addis Ababa Environmental Protection Authority
AAWSA	Addis Ababa Water Supply and Sewerage Authority
AVA	Awash Valley Authority
AVDA	Awash Valley Development Agency
AwRB	Awash River Basin
AwRBA	Awash River Basin Authority
BoFED	Bureau of Finance and Economic Development
EEPCo	Ethiopian Electrical Power Corporation
EWRA	Ethiopian Water Resources Authority
EWWCA	Ethiopian Water Works Construction Authority
FDRE	Federal Democratic Republic of Ethiopia
FEPA	Federal Environmental Protection Authority
IWRM	Integrated Water Resources Management
MoARD	Ministry of Agriculture and Rural Development
MoFED	Ministry of Finance and Economic Development
MoWE	Ministry of Water and Energy
MoWR	Ministry of Water Resources
NWB	Nederlandse Waterschapsbank
NWRC	National Water Resources Commission
OEPLUALUA	Oromia Environmental Protection and Land Administration and Land Use Authority
RBO	River Basin Organization
SNNPR	Southern Nations Nationalities and Peoples
VADA	Valleys Agricultural Development Authority
WASH	Water, Sanitation and Health
WASSA	Water Supply and Sewerage Authority
WRM	Water Resources Management

1. Introduction

This report gives an overview and analysis of the legal framework and institutional setup for Integrated Water Resources Management (IWRM) in Awash River Basin (AwRB). It is part of a postgraduate course work on water governance at UNESCO-IHE through a special programme from January 1, 2012 to July 31, 2012. The coursework and the fieldwork are financed by NWB Fund and Water Board Velt en Vecht. The idea of enhancing IWRM in AwRB by Dutch water sector consortium¹ is the main driving factor for the birth of this report.

1.1. Background

Since 2010, Dutch water boards are involved in WASH (Water, Sanitation and Health) projects in the Upper Awash catchment area. Other Dutch water organizations are already working for a longer time in this area or elsewhere in Ethiopia, e.g. MetaMeta, WASTE (Dutch WASH Alliance), UNESCO-IHE and IRC, both on WASH-projects and on Water Resources projects. Together these organizations recognized the importance of IWRM using a catchment approach, as a critical success factor and precondition for sustainable water projects, water management and water related services in the catchment area. They set up a consortium in order to work together with Ethiopian counterparts to achieve enhanced (decentralized) IWRM in the AwRB.

1.2. Objectives

The objective of this study is to:

- provide overview on the overall governance structure of Ethiopia
- analyze of the legal framework and institutional setup of IWRM of AwRB, specifically
 - a) coordination of planning of water resources development both in vertical and horizontal level
 - b) regulation and enforcement of water permitting, allocation and collection of water charges.

1.3. Scope of the Report

This report is meant to provide basic information on IWRM in policy and legislative level in the country and on a river basin scale specifically AwRB for the consortium partners and lay a basis for a more detailed assessment of the water governance capacity in the AwRB. The water governance assessment will be executed in the second half of 2012.

1.4. Method and Approach

The study is based on desk review of policy, strategy, proclamation, regulation documents in the water sector and other sectors which have relevance to the water sector. Moreover, to understand the existing situation in practice formal and informal discussions were conducted with the relevant

¹ Waterschap Velt en Vecht, Waterschap Hollandse Delta, Waterschap Zuiderzeeland, Waterschap Hunze en Aa's, MetaMeta and Water Governance Center

institutions and persons. The formal and informal discussions included Ministry of Water and Energy (MoWE), Federal Environmental Protection Authority (FEPA) Addis Ababa Environmental Protection Authority (AAEPA), Awash River Basin Authority (AwRBA), Oromia Environmental Protection and Land Administration and Land Use Authority (OEPLALUA), Addis Ababa water Supply and Sewerage Authority (AAWSA) and water users.

1.5. Structure of the report

Apart from this introduction part, the report is composed of the following parts. General outline of the governance structure of Ethiopia is laid down in chapter 2. In this chapter the overall strategic organization, the different levels of government and the public finance of Ethiopia are described. Chapter 3 illustrates the basic characteristics of the AwRB. It explains the legal basis of IWRM in AwRB and it also tries to identify the gaps and overlaps in the legal framework. Chapter 4 describes institutional setup for IWRM in AwRB and current practice.

2. Governance Structure in Ethiopia

2.1. General Geographical Context

Ethiopia, with a total area of approximately 1.13 million km², is a landlocked country in East Africa, situated west of Somalia and north of Kenya. Out of 1.13 million km², of which 99.3% is a land area and the remaining 0.7% is covered with water bodies. The agricultural sector is the leading sector in the Ethiopian economy, 47.7% of the total GDP, as compared to 13.3 percent from industry and 39% from services (World Bank 2005).

The terrain consists largely of high mountains and plateaux with elevations above 1500 m, divided from south-west to north-east by the East African Rift Valley, a major structural feature some 40–60 km wide and in places 1000m below the flanking plateau areas. Elevation in Ethiopia varies from the highest point at Ras Dshen Terara (4620m) to the lowest in the Danakil Depression (125m below sea level; northern section of the Afar Depression). The Ogaden region of eastern Ethiopia bordering Somalia is also a flat plain, with an elevation of around 600m.

2.2. Governance Structure Ethiopia

Ethiopia is a federal country, consists of four tier of government: federal, regional, zonal and wereda.

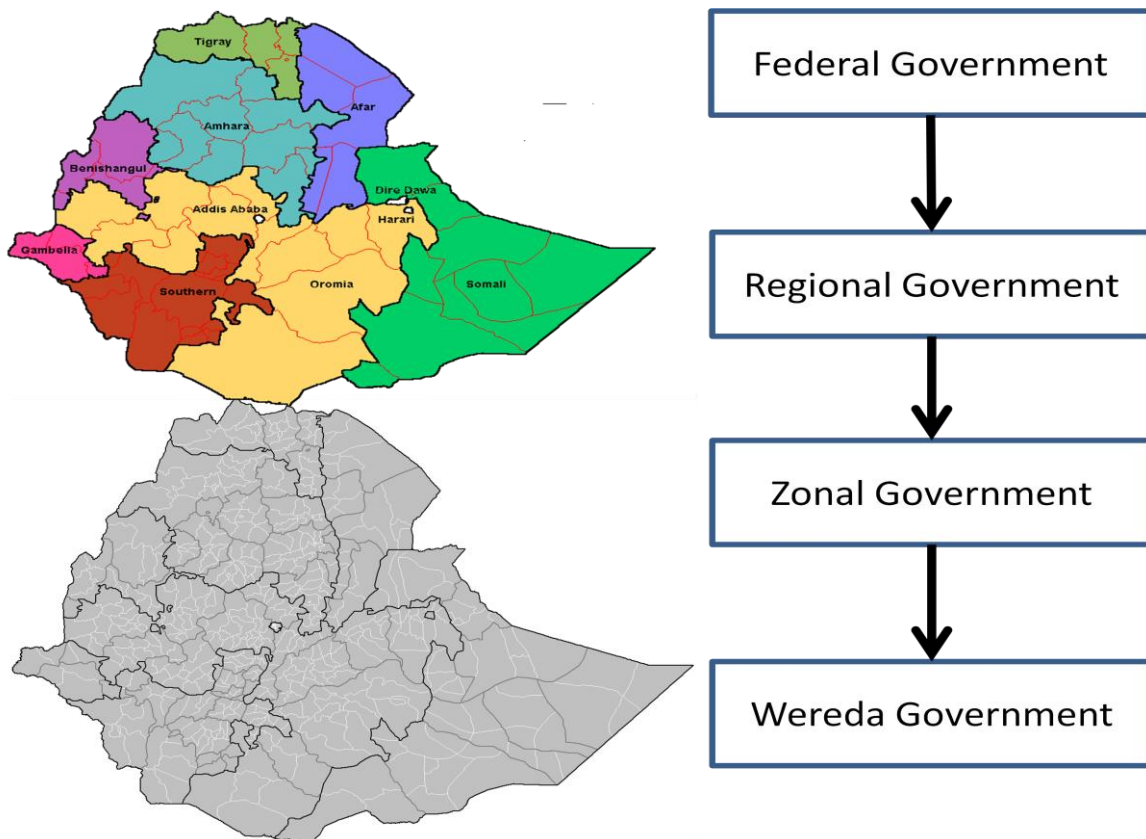


Figure 1: The four tier of government in Ethiopia

The first major action taken to guarantee the regionalization strategy was the provisions contained in proclamation No. 7/1992. Proclamation No. 41/1993 has established national regional self-

governments. The Constitution is the major legal document that caused the establishment of the federal and regional structure.

Following the legal framework, the country constituted nine regional states: Afar, Amhara, Benishangul-Gumuz, Gambella, Harari, Oromia, Somali, Southern Nations Nationalities and Peoples (SNNPR) and Tigray, and two special city administration councils: Addis Ababa and Dire Dawa.

The regional states are sub-divided into sixty six zones that are further sub-divided into seven hundred seventy six Wereda's. A Wereda, on average roughly consisting of 100,000 people, is the lowest level of government in regions. Regional governments were established based on ethnicity and language.

2.3. The Different Levels of Government's Structure

2.3.1. Federal Level of Government

Each of the four levels of government in Ethiopia has the same structure: a legislative body, a court system, a number of sector specific administrative institutions that constitute the executive branch.

At federal level, the legislative arm consists of Members of the House of Peoples' Representatives (elected by the population of the country) and a House of Federation. The latest consisting of at least one representative from each region engaged in intergovernmental relations. Both houses are responsible for general national laws. The President and the Prime Minister with the Council of Ministers are the executive arms of the federal government. The Council of Ministers is delegated to carry out functions of the federal government such as monetary policy, foreign relations, defence, sectoral development, national policies, etc. Ministries also support their regional counterparts and provide technical assistance to the regional bureaus.

In the federal level the Ministry of Water and Energy (MoWE) is responsible for preparing national water policy, strategy and action plans, and for establishing national standards for, amongst other things, water quality and infrastructure. The ministry is also accountable for overseeing the implementation of policy and strategy. In addition to this regulatory role, the ministry gives technical advice (in the form of manuals and guidelines) to regional water bureaus. The MoWE also manages the implementation of the largest capital investment projects.

2.3.2. Regional Government

According to the Constitution the nine regional states and the two administrative councils enjoy extensive power. The regions can establish their administrations that advance self-government and democratic rules as per the provisions of the Constitution. They can formulate and execute economic, social and development policies, strategies and plans as well as administer natural resources found in their territories. In addition to that they levy and collect certain taxes that are not reserved to the federal government, set standards for state civil service conditions and pay and maintain state level security force.

The Regional Council elected by the people of the region is mandated to make region specific legislation and approve budget as well as development projects and strategies. The members of the Regional Council appoint an Executive Committee, which oversees day-to-day activities administration of a region. The council also appoints the regional President and administrative

Bureau heads to perform the executive functions. All regions have a Bureau of Finance and Economic Development (BOFED), and sector bureaus in priority policy areas: Agriculture, Education, Health, Water and Roads. They also have their own civil services and regional court system, where the Supreme Court oversees the interpretation of regional constitutions and application of regional law.

At the regional level the Bureau of Water Resources Development is responsible for the implementation of federal water resources policies by adapting them to the specific conditions of the region. Regional water bureaus are also charged with providing technical support to Wereda's as they build their capacity in both urban and rural water resources management. As such, regional water bureaus primarily provide technical and financial (for capital investment) support for water resources management and WASH projects where required. The water bureaus also have a regulatory role for certain tasks as delegated to them by the MoWE.

2.3.3. Zonal Government

The zonal administration is serving as a sub-regional administrative structure in order to co-ordinate and watch over the activities of the Wereda administrations. However, there are regional variations with regard to its mandate, legitimacy and functions. In all regions, except the SNNPR, zones are simply acting as a subsidiary or sub-regional administrative structure in which most of its officials are appointed by the regional state. These officials are responsible for transmitting decisions and power of the regional government to the Wereda administration. The Wereda administrations are directly accountable and responsible to the zonal administrations and in turn the zonal administrations are accountable to the regional government.

Regarding water Zonal Water Resources Development Offices give technical support both to the Wereda water bureaus in water resource management and development projects and to Town Water Supply Offices in WASH. They are accountable for coordinating activities, plans and reports from Wereda's, and liaising between regional water bureaus and Wereda water bureaus.

2.3.4. Wereda Government

The Wereda structure is the third tier of administrative structure in the Regional states and it is provided with a power to 'prepare, determine and implement activities within its own areas concerning social services and economic development' (Proclamation 7/1992, Art. 40, 1). Within the Wereda structure the kebele (villages) administration is the lowest administrative body. Its major functions are recognised as ensuring law and order in the kebele area and providing routine administrative service to the kebele people.

At the Wereda level, Wereda Water Resources Development Bureaus are responsible for the planning, design and implementation of small-scale water resources development schemes (water supply and small scale irrigation) and watershed management.

2.4. Public Finance

2.4.1. Fiscal Policy

With regard to the public finance, the Constitution provides the following guidelines for public expenditure.

- The Federal Government and the Regional States shall bear all financial expenditures necessary to carry out all responsibilities and functions assigned to them by law;
- The Federal Government may grant the regions emergency, rehabilitation, and development assistance and loans, due care being taken that such assistance and loans do not hinder the proportionate development of the Regional States;
- The Federal government shall have the power to audit and inspect the proper utilization of subsidies it grants to the states.

The first statement aims the regions their duty and right to plan and implement their own development policies while the rest of the statements specify the federal government as supporter and monitoring body.

The Constitution declares 'The Federal Government and the States shall share revenue taking the federal arrangement into account' (Article 95). Article 96 stipulates the distribution of the different tax revenues between the Federal Government and the regions. The present distribution of tax revenue is heavily tilted towards the Federal Government, while expenditure responsibilities have been so extensively decentralized. Under this system around 75% of the total tax revenues belong exclusively to the Federal Government, including the VAT as a major source. As a result, most regions do heavily depend on grants to comply with the state functions (80% dependency rate on average) (MoFED, 2002).

The regions have revenue sources of their own, such as income tax, agricultural tax and land use tax and fees and charges from service providing public bodies. Despite this, the revenue raising capacity of all regions is limited in relation to their expenditure responsibilities. This imbalance is addressed through federal subsidy transfers, primarily in the form of a block grants. The term block grant implies that the subsidy is delivered as one "untied" or "unconditional" amount. It is not distributed in small portions, earmarked for sectors, such as agriculture, roads or education. It is up to the regions to prioritise how the received subsidy will be used in accordance with national policy directions as well as their own priorities.

On the federal level a Block Grant Formula is used to decide on the amount of annual budgetary resources for each region. The very principles of the federal Block Grant Formula are also adhered by all regions to transfer budget to lower government levels. The ultimate purpose of the formula is to ascertain every citizen's access to basic services, such as health, education, clean water, agricultural development and accessible roads. It aims to equalize the revenue capacity of regions, based on per capita calculation of the revenue raising capacity and expenditure needs. The formula is based on the following variables:

- Population size of the region;
- An expenditure assessment, which estimates resources needed to provide all people of the region with the above mentioned services;
- A revenue assessment, in other words an estimate of the revenue potential in the region, based on previous years' performance and divided per capita.

3. Legal Framework for Water Resources Management in Awash River Basin

3.1. River Basins in Ethiopia

There are twelve major river basins in Ethiopia of which ten have run-off. With the exception of Awash, Rift Valley Lakes and Omo-Ghibe, all the other rivers are trans-boundary and flow to the North-western, Western and South-eastern areas of the country. Baro-Akobo, Abbay and Takeze drain to the Nile system. Wabi Shebelle and Genale discharge into the Indian Ocean after cutting through the Republic of Somalia. The Omo-Ghibe flows into Lake Rudolph The Ogden and Aysha are dry basins without any streams.



Figure 2 River Basins in Ethiopia

3.2. Awash River Basin

Awash basin covers parts of Afar, Amhara, Oromia, Somali Regional States and Addis Ababa and Dire Dawa administrative councils. It is the fourth populous basin in Ethiopia and ranks the 3rd of all basins of Ethiopia in terms of population density. The overall population in the Awash basin is estimated to be 10 million. The main population centres lie in the upper basin including the capital city Addis Ababa. The Awash Basin covers a total area of 110,000 km².

Table 1: Population distribution of AwRB among the Regions and Administrative Councils (Source: Awlachev et al. 2005)

Regional State or Administrative Council	Addis Ababa	Afar	Amhara	Dire Dawa	Oromia	Somalia
% of Basin Population	22.7	9.9	18.7	2.7	37	7.5

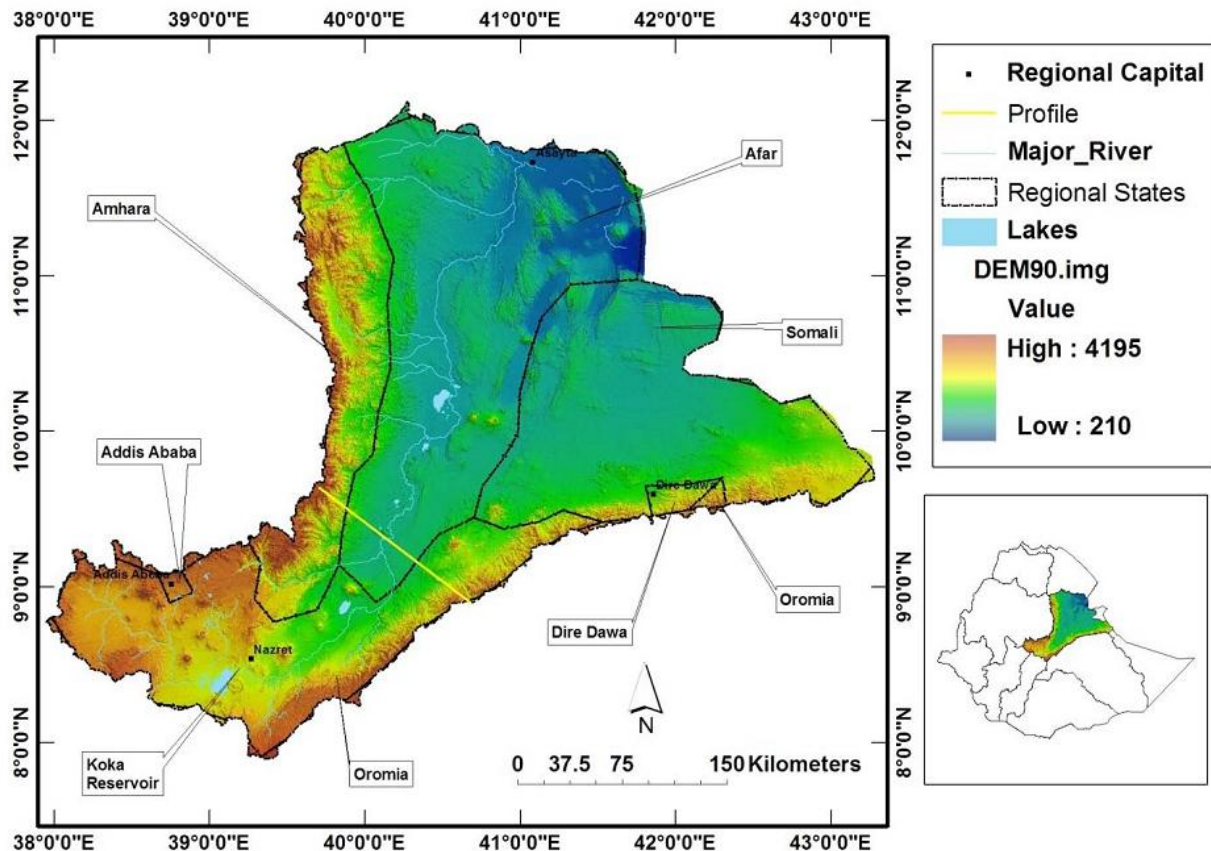


Figure 3 Awash River Basin (Source; MOWR, 2002)

The Awash river rises on the high plateau to the West of Addis Ababa, at an altitude of about 3000m. The Awash is fed by several major tributaries; the tributaries include Kessem, Kebena, Awadi, Arso, Ataye, Borkena, Cheleka, Mile and Logiya rivers. The part of the catchment situated in the east of the river, accounting for some 40% of the total basin area, does not contribute any surface runoff to the river. The total length of the Awash river is approximately 1250km (Awlachew et al. 2005). The Awash basin contains two lakes, namely Beseka and Gedebera lake. Beseka lake is highly saline and located within a short distance from the river. Currently the lake covers 40km²; eight years ago it was only 27km². The expansion of the lake has consumed grazing land, residence areas and arable land. In order to minimise the damage of the expansion, MoWE has been diverting the water to the Awash river. Until now the diversion of water is done in a controlled way. The worry is if once controlling of the diversion is not possible the consequence in the water quality of the Awash river will be immense.

Awash River is comparatively one of the most utilized rivers in the country. Irrigation constitutes one of the important land uses in the basin. The master plan study report indicates that some 200,000ha of suitable land could be available for irrigation. The net area currently commended by irrigation schemes is estimated to 89,000ha. Approximately 70% of the irrigable area is owned by the Federal Government, 5% Afar regional state and 7% by Oromia regional state. The remaining 18% is owned by private farmers. Some 3% of the land is known to have been abandoned as a result of salinity problems.

The Awash river serves multipurpose uses all along its course throughout the basin. The Awash river and its tributaries are sources of drinking water for large and small cities such as Addis Ababa, Adama, Awash and Metehara town. Addis Ababa is supplied from three reservoirs (Dire, Legadadi and Gefersa) in the Awash basin, plus a number of ground water sources. As a matter of fact it is also the source of domestic water for the majority of the people in Afar region in which the majority of the population is nomadic and it is also the only surface water available in the region. Awash river is also used for generating hydropower energy in Koka 1 and 2 hydropower plants.

Many of the big industrial hotspots in the country are found inside the Awash basin. These include the industrial corridor extending from Addis Ababa to Adama town, Metehara area, and Dire Dawa city. For all of the industries Awash river is used as source of water for consumption and disposing of their waste. Awash river is the most polluted river in the country. The release of untreated waste from industries, waste individual households and soil erosion from the upper watershed critically hampers the water quality of the river.

3.3. History of Legislation

Until about a decade ago, the water resources sector of Ethiopia did not have any clearly articulated and comprehensive policy or legal documents. Except for the powers and responsibilities given by law to the respective government bodies, most of the policy, legal and regulatory framework for the management of water resources was based on Ministry directives and day-to-day practices within the relevant government agency. This does not mean, however, that there were no legal provisions regarding the rights to and use of water resources in Ethiopia. The 1960 Civil Code of Ethiopia contained several provisions with respect to ownership and use of water for different activities such as domestic, irrigation, hydropower, and industrial uses. The provisions mainly premised on the riparian rights doctrine whereby a landowner whose land is crossed or bordered by flowing water has the right to use such water for different purposes (MoWE, 2001).

The first attempt at more comprehensive water resources management legislation was made in the preparation of a national water code and a subsequent water resources regulations in 1976 and 1985 respectively. The two legislative documents were discussed and revised in 1986 but were never adopted by the then government. The draft water code and regulations were premised on the policy that all water resources are public property and covered pertinent provisions regarding, among others, the inventory and register of water resources and use of the country, permit system for different water use, water fees and charges, water quality control, regulation of groundwater resources and establishment of water users associations. It also provided for the allocation of water rights and decentralization of water administration to provinces by delegation. Although the draft water code and regulations were not adopted at the time. Currently, the “Ethiopian Water Resources Management Proclamation” (Proclamation No. 197/2000) is the applicable law regarding water resources management in the country and will be discussed later on (MoWE, 2001).

3.4. The Federal Constitution

As the supreme law of Ethiopia, all national policies, laws, and institutional frameworks of the country must be in line with the constitutional provisions of the Federal Government (Art.9). The Constitution (Proclamation 1/1995) has several provisions, which have direct policy, legal and institutional significance for the management of the water resources of the country.

Art. 40(3) of the Constitution provides for the public ownership of both rural and urban land as well as all natural resources. Thus, the water resources of the country are part of the public domain and therefore vested in the State that holds the water resources in trust for the public at large. The Constitution defines the powers and functions of the Federal Government and Regional States respectively with respect to water resources management and administration.

The Constitution provides that the Federal Government has the mandate to enact laws for the utilization and conservation of land and other natural resources, while the Regional States have the right to administer land and other natural resources in accordance with federal laws (Article 51.5 and Article 52.2d). This means that regions have to abide by the laws of the Federal Government in administering and managing the water resources within their regions and may possibly issue laws that are consistent with the laws of the Federal Government.

More specifically, the Constitution stipulates that the Federal Government shall determine and administer the utilization of the waters or rivers or lakes linking two or more States or crossing the boundaries of the national territorial jurisdiction (Art. 51(11)). This provision gives the Federal Government very broad powers as regards water resources management since almost all water resources in the country are shared by two or more Regional States and therefore 'link' the Regional States. Thus, it means that determination and regulation of the use and allocation of the water resources of the country and the administration of such water resources largely rests with the Federal Government.

Finally, another important provision (article 51) of the Constitution is that the executive arm of the Federal Government (MoWE) may delegate some of its powers and responsibilities to Regional States and/or any other water resources management institution when it deems it necessary (article 50.9) for the effective management and administration of the water resources of the country.

3.5. The Ethiopian Water Resources Management Policy

The Ethiopian Water Resources Management Policy (WRM policy) was issued in June 1999 and, as any policy, is essentially an instrument for achieving the intended goals and objectives of a given sector. The policy recognizes that it is based on the constitutional provisions for water resources management and the overall macro-economic, social policies and development strategies of the Federal Government. The objective of the policy is to further articulate and elaborate the overall principles and directions the country should follow regarding water resources management. This section will discuss only some of the provisions that are relevant to the legal and institutional framework for water resources management raised in the policy document since they form the basis for subsequent translation of these provisions into law.

With respect to the fundamental principles that should inform water resources management, the policy states, among other things, that:

- Water is a natural endowment commonly owned by all the people of Ethiopia;
- Water resources development shall be underpinned on rural-centered, decentralized management, participatory approach as well as integrated framework;
- Promotion of the participation of all stakeholders, user communities, particularly women's participation in the relevant aspects of water resources management.

The above policy provisions seem to stress that the State holds water resources in public trust and that water resources development and management should follow a participatory approach with decentralization as a basic principle and the participation of all stakeholders with emphasis on women in all aspects of water resources management. This implies that any institutional set-up for water resources management should aim at ensuring participation of all stakeholders and a proper coordinating mechanism should be put in place to this effect.

The WRM policy provision emphasizes the necessity of IWRM approach and that all aspects of water resources management including the management of surface and groundwater resources, water quality and quantity issues should not be treated separately or in a fragmented manner. It also recognizes the need for water resources management to be integrated with other aspects of natural resources management, which implies for intersectoral coordination at both the federal and regional levels. The need to manage water resources on the basis of strategic and long term planning is also stressed. More importantly, it stresses the adoption of the basin as the hydrologic unit of water resources management as well as the need to ensure institutional stability and continuity while at the same ensuring a smooth transition in times of change.

With regard to the policy on institutional and legal framework, the policy document on enabling environment provides additional relevant provisions:

- Promote appropriate linkage mechanisms for the coordination of water resources management activities between the Federal and Regional Governments;
- Establish phase-by-phase River Basin Organization (RBO), for efficient, successful and sustainable joint management of the water resources of the basins through concerted efforts of relevant stakeholders;
- Create conducive environment for the enhancement of linkages and partnership between the Federal and Regional states on the basis of the Constitution for the realization of efficient, sustainable and equitable water resources management;
- Provide the legal basis for active and meaningful participation of all stakeholders.

The above policy provisions on legislative and institutional framework underline the necessity for coordination and linkage regarding the institutions responsible for water resources management at the Federal and Regional levels. In the context of establishing a river basin organization, this calls for defining clearly in law not only the coordination and linkage mechanisms between the RBO and Regions and defining the specific functions and roles that needs to be undertaken at the Federal and Regional levels but also the coordination between the Regions sharing a specific river basin.

Another important policy element is the provision for the establishment of RBO on a phase-by-phase basis. The approach currently taken in Ethiopia is consistent with this policy provision and accordingly Abbay, Awash and Rift Valley river basin organization are established respectively. Abbay River Basin Authority is established by "Abbay Basin High council and Authority Establishment Council of Ministers Regulation No. 151/2008". To some extent the authority is exercising the powers and duties given to it starting from the day of establishment to date. Awash River Basin organization and Rift Valley Lakes Basin organization are established by "Awash Basin High council and Authority Establishment Council of Ministers Regulation No 156/2010" and "Rift Valley Lakes Basin High

Council and Authority Establishment Regulation No. 253/2011" respectively. Both entities did not start exercising their duties and responsibilities as it deems.

3.5.1. The Ethiopian Water Resources Management Proclamation

The Ethiopian Water Resources Management Proclamation (No. 197/2000) entered into force on March 9, 2000. The stated purpose of the Proclamation is "to ensure that the water resources of the country are protected and deployed for the highest social and economic benefits of the people of Ethiopia, to follow up and supervise that they are duly conserved, to ensure that harmful effects of water are prevented, and that the management of water resources are carried out properly (Article 3)."

It also lays down fundamental principles that need to be taken into account in the management and administration of water resources in the country. The basic thrust of these fundamental principles is that water resources management and administration in the country should be based on the Ethiopian Water Resources Policy and the Water Resources Laws of the country and that the 'Supervising Body' shall ensure that any water resources related activities in the country are conducted accordingly. The 'Supervising Body' is defined as 'the Ministry of Water and Energy where it pertains to water resources at the federal level, or any organ delegated by the Ministry...'. The latter is further elaborated in Article 8.2, which says, 'the Supervising body may, where necessary, delegate its powers and duties to the appropriate body for efficient execution of its duties.'

As regards ownership of water resources of the country, it is provided, consistent with the constitutional provision, that they are the common property of the Ethiopian people and the State (Article 5) which implies that the State will play a major role in the management, allocation, utilisation and protection of the water resources of the country.

Another major aspect of the Proclamation is that most water resources use and construction of hydraulic infrastructures are to be based on a permit system. Digging water wells by hand or use water from hand-dug wells, use water for traditional irrigation, artisanal mining and for traditional animal rearing, as well as for water mills are exempted from permit. The Proclamation has several provisions regarding the application, issuance, duration, suspension and revocation of permits. It also provides for the payment of fees and water charges for water use to the Supervising body. The amount and criteria for determining fees and charges are left to subsequent regulations, in this case "The Water Resources Management Regulation No. 115/2005". In this Regulation fees for different water use permits are specified. However there is no specified water charges rate for the different water uses and water works construction. The power to determine the water use charges is given to the Council of Ministers.

The establishment of water users associations in a voluntary manner also envisaged. Details of their establishment and organisation are specified in the regulations. The proclamation also specifies responsibilities and duties of the supervising body for inventorying of water resources and registry actions. It identifies the necessary inventory types of water resources information.

There are also provisions relating to settlement of disputes and adjudication the procedures of which are to be specified in regulations.

The proclamations also give the power to suspend or revoke a water uses and/or water works construction permit any time in whole or partially where the holder fails to observe or fulfil his/her obligations. The details will be determined by the regulations to be issued for the implementation of this proclamation.

3.5.2. The Proclamation for the Establishment of Basin Councils and Authorities

In Ethiopia, the WRM policy states that the basin should be considered as the basic planning unit for development and management of water resources. The policy document envisages the establishment of RBO's are considered as one of the main instruments to implement IWRM through river basin plans and effective and sustainable joint management by relevant stakeholders. The River Basin Councils and Authorities Proclamation No. 534/2007 entered into force on July 23, 2007. The Proclamation gives RBOs a number of mandates (powers and duties) that is currently held by the MoWE.

The River Basin Councils and Authorities Proclamation spells out the establishment and management of the RBO. Under this proclamation, the already existing Awash Basin Water Resource Management Administration Agency is restructured and transformed to Awash River Basin Authority (AwRBA) by the Awash Basin High Council and Authority Regulation No. 156/2010. The Awash Basin High Council members are designated by the Federal Government and they are accountable to the Council of Ministers (article 5). The River Basin Authority is accountable to both the Basin High Council and MoWE. The RBA is lead by a General Director, who is appointed by the Prime Minister. Both the Proclamation and Regulation do not disclose any information about who are the members of the Basin Council. The establishment of the AwRBA is facilitated by the MoWE and it is in line with its policy to adopt the IWRM approach. The key objective of the AwRBA and authority are to coordinate planning in the basin following a cross-sectoral and participatory approach in order to achieve the timely implementation of well-designed and prepared projects that contribute to sustainable development without jeopardising the environmental health of the basin.

3.6. Gaps and Overlaps in the Legislative Framework of IWRM in Awash River Basin

The Constitution of spells out that the Federal Government shall determine and administer the utilization of the rivers or lakes linking two or more states or crossing the boundaries of the national territorial jurisdiction. However, it does not explicitly say anything about the water resources, which confined in the territory of a regional state. Since powers not given expressly to the Federal Government are reserved to the Regional States), this may mean impliedly that water resources within the confines of a certain region will be managed and administered by the respective regional states. The division of responsibilities between the Federal Government and the Regional States based on 'inter-regional' and 'regional' water resources might raise difficulties for IWRM of the country. The former will be under the jurisdiction of the Federal government while the latter will be under the jurisdiction of the Regional states. This would be a superficial division since surface waters and ground waters including lakes should be managed as an integrated whole because the use of each, in both quantitative and qualitative terms, has an impact on the other.

It is a fact that all of the major water resources in the country are shared by two or more national regional states. This implies that the decision-making with respect to the use and management of

water resources of the country is that of the Federal Government. The Water Resource Management Policy also reflects the same. However, the policy of decentralized decision-making, which is reflected in the Constitution, calls for regional states to have adequate role and participation in decision-making regarding the allocation and administration of the country's natural resources including water. From these provisions, it is clear that there is an inherent contradiction in the power and responsibilities of water resource management.

Article 2.7 and 8.2 of the Constitution says "Supervising body" may delegate its powers and duties given to it in the Proclamation to the appropriate body for the effective execution of its responsibilities, i.e. the MoWE may delegate all or some of its powers and duties to Regions RBO's as and when it deems it necessary. Except for the AWRBA there is no formal delegation of power from the Federal Government to any of four Regional States and two Administrative Councils which constitute the AWRB. However, in practice Regional Water Bureau are exercising the power and duties meant for the Federal Government.

The Ethiopian Water Resources Management Proclamation No. 197/2000 does not have any provisions regarding intersectoral coordination for water resources management at both the Federal and Regional levels. The effective implementation of the Proclamation and of the IWRM is largely dependent on such coordination because the water resources development is largely related with the management of other natural resources. As the basic legal instrument for water resources management of Ethiopia, it is believed that a provision in the Proclamation providing for the need of inter-sectoral coordination (Land, Industry, Agricultural policy etc...) would have provided the legal basis for more articulation in subsequent laws.

The Water Resources Management proclamation (No. 534/2007) it is stated that members of the Basin councils are delegated by the council of ministers but it is not disclosed that who are members of Basin High Councils and how they are participating in the decision-making process

In the Water Resources Management Regulation (No. 156/2010) the major stakeholders of the Awash river basin are identified, but it is not described how they are represented in the decision-making body and by whom they are represented in the decision-making body.

The power to determine the water use charges are given to the Council of Ministers. As to the regulation article 32(1) there should be an attached schedule 2 for water charges for the different water uses. But it is not there.

4. Institutional Setup for IWRM in Awash River Basin

4.1. History

Water resources development approaches and organizations in Ethiopia have evolved into needs, as they were perceived over time. Before 1956, only a small portion of Ethiopia's water resources was developed and the Government's administrative role was minimal. In 1956, a Water Resources Department under the Ministry of Public Works & Communications was established to handle river basin studies and water well drilling programmes. Then Awash Valley Authority (AVA) was established as an autonomous public authority by a charter of the Imperial Ethiopian Government in 1962. It was the first river basin institution in Ethiopia. The objective of the AVA was to administer and develop the natural resources of the Awash Valley.

In 1971, the growing importance of water elsewhere in Ethiopia was recognized by the establishment of the National Water Resources Commission (NWRC), under the then Ministry of Public Works & Water Resources. The Commission's purposes and objectives covered the full range of water responsibilities. The Commission's powers were broad but were not fully exercised and implemented due to financial and organizational constraints as well as lack of commitment and willingness of public authorities to accept a national authority over water resources development and management. As a result, in 1975, the Ethiopian Water Resources Authority (EWRA) was established and placed under the Ministry of Mines, Energy & Water Resources. Three agencies, namely, Land & Water Studies Agency, Rural Water Development Agency and Urban Water & Sewerage Agency were established under the Authority. The AVA, however, retained its responsibilities for the Awash Valley (MOWR, 2002).

In another re-organizational undertaking, the Valleys Agricultural Development Authority (VADA) was proclaimed in 1977. It had similar powers and duties as AVA except that its jurisdiction was limited to water resources (AVA's responsibilities include all resources) but its authority covered the whole country. To avoid conflict with AVA, the Awash Valley Development Agency (AVDA), a creation of VADA was formed. The AVDA had diminished powers as compared to those AVA had enjoyed (MOWR, 2002).

In 1981, a major re-organization took place in the water sector and a new "National Water Resources Commission" (NWRC) was created. VADA and AVDA were dissolved and incorporated in the newly established NWRC under the Water Resources Development Authority (WRDA). The new NWRC, in fact, was composed of the Water Resources Authority, Water Supply and Sewerage Authority (WASSA), Ethiopian Water Works Construction Authority (EWWCA), and the National Meteorological Services (NMS). In a further reorganization, the Ethiopian Valleys Development Studies Authority (EVDSA) was established in 1987 under the Office of the Prime Minister (MoWR, 2002).

After about ten years of existence, the National Water Resources Commission was dissolved and the Authorities under its umbrella, except EWWCA, but including the EVDSA were made accountable to the Ministry of Natural Resources & Environmental Protection, which was established in 1993 and existed for about two years. The Ministry of Water Resources was established in August 1995 by proclamation No. 4/1995 as a federal institution for the water sector. At regional level, the water

sector is the responsibility of the Water, Mines and Energy Development Bureaus or the Water Resources Development Bureaus (MoWR, 2002).

The current MoWE is established in 2008 by having:

- all of the powers and duties given to the former Ministry of Water Resources;
- the power and duties of the Ministry of Mines and Energy, with respect to energy, by the provisions of other laws and currently in force;
- the power and duties of the Ministry of Agriculture and Rural Development and the Ethiopian Rural Energy Development and Promotion Centre, under Proclamation No. 317/2003 with respect to rural electrification.

Through the power given to MOWE as the “supervising body” to delegate its full or part of its power, the then MOWR delegated the Awash River Basin Water Resource Administration Agency (AWRBWRAA) to coordinate, administer, allocate and regulate the utilization of the surface water resources of the Basin. The current AwRAB is established by restructuring and transforming AWRBWRAA in 2010.

4.2. Awash River Basin Organization

Awash River Basin Organization established through Awash Basin High Council and Authority Proclamation No. 156/2010 by restructuring and AWRBWRAA, which is established according to proclamation No. 129/1998. Awash River Basin Authority (AwRBA) is the basic organization to implement IWRM through river basin plans and effective and sustainable joint management by relevant stakeholders. The Awash RBO is a double tier body, formed by a High Council, being the high rank policy organ, and a River Basin Authority being the technical arm. The role of the Awash RBO is:

- Coordination of planning to ensure a framework for integrated water resources management;
- Regulation and enforcement of water use for sustainable and equitable use of the water resources;
- Knowledge building to allow informed decision-making based on (hydrological) information;
- Information exchange and networking with stakeholders to build a shared vision.

The first task is the establishment of a planning framework to coordinate the plans of the various sectors and Regions in the basin. This will allow to identify linkages, conflicting interests, impacts on other sectors, and to adjust planning or to propose mitigating measures. This requires a two-way communication flow with the various stakeholders involved.

The Awash RBO must have access to the various sector and regional plans. It will then make synthetic summaries so that it has a clear understanding and overview of the major development programmes and planned projects. The information will be shared with stakeholders.

The Awash RBO will coordinate the plans of the stakeholders, whether the plans are compatible with other sector plans or whether there may be some conflicts of interest. It may occur that further hydrological or environment impact studies are needed; in other cases conflict resolution and tradeoffs will have to be made resulting in necessary adjustments to the sector plans.

The above two-way communication flow with stakeholders and the inter-institutional cooperation is one of the most difficult issues in IWRM. Yet it is also the key requirement and can be achieved through intensive networking and regular communication with the stakeholders. Some form of protocol or Memorandum of Understanding (MoU) may have to be concluded with relevant stakeholders to facilitate cooperation and information exchange. In the case of unwillingness to cooperate, the basin Council may intervene.

The second key mandate of the RBO is to establish a regulatory and financial framework, consisting of:

- Water allocation plan;
- Water permit system;
- Water charges and water pollution collection system;
- Basin Fund.

These arrangements are of the utmost importance for effective IWRM. Water permit system with major water users, in close partnership with the Regional Water Resources Bureau will be started. According to AwRBA the water charge system also needs to be introduced as soon as possible for the major water users. The collection of water charges will be used to create a basin fund to be managed by the RBO. The fund will be used to undertake specific studies or investigations such as hydrological modelling, research, environmental surveys, or to contribute to specific stakeholder initiatives. The Fund will also be open to financial contributions from donors.

Developing a water allocation plan for all the users and polluters in the river basin is the ultimate objective. This requires a sound knowledge base on the hydrology of the basin (both surface and ground water) and on all the users and polluters (water demand pattern, impact on water quality and quantity). It also requires a mature institutional framework with proper monitoring and enforcement mechanisms.

The third mandate of the RBO is the development of a sound knowledge base through the creation of a tailor made Management and Information System (MIS), a simple and effective Monitoring and Evaluation (M&E) system, modelling tools and GIS. The better the knowledge base of the RBO, the stronger will be its position in the coordination process with the stakeholders.

The fourth mandate of the RBO is building an effective communication and networking system with the stakeholders in the river basin. This will to a great deal determine the success of the RBO. There are many different stakeholders who have an interest in the use and allocation of water resources within the basin. The following is a list of major stakeholders, although it is by no means exhaustive and complete:

- ✓ The basin population, with nearly 10 million people, is the major stakeholders, based on their interests in jobs, food production, irrigation, domestic water supply, groundwater, navigation, fishing and flood protection. As to the plan the interests of the local people are represented through the elected representative system (local government), water users associations, or NGO's on their behalf;
- ✓ The MoWE is the policy-making institution that steers and coordinates the overall direction of the basin through studies, conflict resolution, water allocation and regulation. In addition,

it also plans, supervises and designs large-scale hydropower plants, irrigation schemes and water supply and sanitation, flood protection works;

- ✓ The four Regional Governments (Afar, Amhara, Oromia and Somalia) and the two Administrative councils (Addis Ababa city and Dire Dawa city). These stakeholders have a key interest in the socio-economic development in the basin, in particular agriculture, food security, poverty alleviation, but also in watershed management, tourism development, fisheries, etc in their respective regions;
- ✓ The Ministry of Agriculture (MoARD) has a key role to play in the basin concerning agriculture and small-scale irrigation, food security, watershed management, forestry and biodiversity conservation;
- ✓ The Environmental Protection Agencies (Federal EPA, Addis Ababa EPA, Oromia EPLUALUA , Afar EPA, Dire Dawa EPA and Somalia EPA) has a stake in environmental protection, through ensuring compliance with Environmental Impact procedures and pollution control;
- ✓ The Ethiopian Electrical Power Corporation (EEPCo). This is an autonomous Federal Agency with the mandate to produce, transmit, distribute and sell electrical energy. It operates under the control of the Ministry of Infrastructure. It operates all existing hydropower dams and plants;
- ✓ State, private and self owned Irrigation farms.
- ✓ Town water boards and water utility companies that provide drinking water and sanitation, like Addis Ababa Water Supply and Sewerage authority, Adama town water supply and sewerage authority, Bishoftu town water supply and sewerage authority.;
- ✓ NGO's engaged in environmental conservation, poverty alleviation, rural development, health.

4.3. How it Works in Practice

Awash RBO is the institutional setup recognized for IWRM in Awash river basin in paper. It is in the infant stage, two years old. Awash RBO is not a very known or branded entity in the basin. Even their existence, mandate, and role are not clear and not known by major stakeholders in the basin². Practically Awash RBO is not functional and operational as mandated and expected in the proclamation and regulations. Lack of capacity, lack of hydrological and water user's information, lack of instruments and tools for enforcement and regulation and shortage of funds are the major factors which hinders the Awash RBO. The financing scheme planned to finance the Awash RBO is not functional³. The responsibilities and duties of the Awash RBO demands high coordination, cooperation and networking amongst stakeholders. Whereas, Awash RBO doesn't have any existing regular communication and networking platform or channel for stakeholders⁴. Apart from Awash RBO there are fragmented efforts made by federal, regional sectoral offices and stakeholders to conduct specific activities, such as sectoral coordination of water resources projects, regulation and

²:Discussion with Federal EPA

³:Discussion with MoWE and AwRBA

⁴:Discussion with Federal and Regional EPA

enforcement of water uses (like water permits) and collection and dissemination of hydrological information⁵.

For large projects of water resource development in Awash river basin sectoral coordination is facilitated on a project bases as of a formality. Steering committees are established by the project owners. Workshops to share information and to accommodate the interest of other stakeholders are organized as a consultative meeting. However the steering committee is not a decision making body rather a technical advisory body. The effectiveness and enforcement of agreed issues on the committee level are usually not taken into consideration. The decision is made with little transparency by higher officials, usually by the ministers⁶. MoWE mostly takes the initiatives for the establishment and functionality of such committees.

As of regulation and enforcement of water uses (permits and water charges) a number of institutions are involved both in the federal and regional level in Awash river basin. According to the MoWE and Awash RBO the regulation and enforcement of water uses is in bewildered state. The MoWE and AwRBA are engaged in providing water permits for different uses in uncoordinated way in the whole region. In parallel Afar, Amhara, Oromia and Somali water office also give permits for water users in their respective region. Surprisingly there is no formal communication, well-established and shared database by the permit providers for allocating water from the same resource. Both federal and regional EPA, MoWE and Regional Water Bureaus are trying to monitor uses of water by the users, but it lack enforcement. Moreover there is no proper communication from regulatory and enforcement body. AwRBA is the only organization in the basin that has an experience of collecting water charges⁷. They are collecting water charges (3birr/1000m³) from big irrigation farms for water abstracted from government water project for irrigation purpose. According to the Regulation No. 115/2005 article 33(1) the charge payable for such water has to be in a cost recovery principle. According to the Director General of AwRBA the collected charge is not enough even for maintenance and operations of the hydraulic infrastructures.

Discharging treated waste water to Awash river is permit based. Until now there is no stakeholder who owns a permit. Whereas all industries along the river corridor and nearby and households are disposing their wastes irregularly, this hampers the quality of Awash river for the different water uses. For sustainable use of the Awash river a strict mandatory measure is required on the disposing of wastes from different sources for continual use of the water for different purposes. The main bodies who have to work hand in hand on the monitoring, issuance of permits and collection of water charges for the disposing of treated waste water are AwRBA and Federal and Regional Environmental Protection Authorities (EPA's). The Federal and Regional EPA's are currently active in monitoring the water quality of the Awash river in some spots, but there is no concrete action taken to control or mitigate the pollution⁸.

⁵:Discussion with MoWE and AwRBA

⁶: Discussion with MoWE and AwRBA

⁷:Discussion with MoWE, AwRBA and Federal and Regional EPA's

⁸:Discussion with Federal EPA and Addis Ababa EPA

Basic hydrological information like water level and water quality of Awash river are collected and monitored to a certain extent by MoWE .The collected information shared with other regional offices and sectoral institution as per their request. The Federal EPA and AwRBA also have some water quality monitoring stations. There is no river system model. Water allocation is made at random. It is not based on good water resources information and understanding of the river basin system . By all standards the amount and quality of data which is collected and processed in the Awash river basin is not sufficient for informed decision-making. Water allocation between regional states and sectors, water pollution control and sustainable financing of water management are the prime challenges which need urgent actions in Awash river basin by AwRBA for sustainable use of the river⁹.

⁹ : Discussion with MoWE, AwRBA and Federal and Regional EPA's

5. Main Challenges for Institutional Capacity Building Towards IWRM in Awash River Basin

AwRB is facing a number of serious challenges related to IWRM. In the writer's opinion the critical water governance challenges in AwRBA are: intersectoral coordination (horizontal) of IWRM in the different levels of government (Federal, Regional, Zonal and Wereda level), making functional the Permit based water uses system and Sustainable financing of water resources development.

Intersectoral coordination (horizontal) of IWRM in the different levels of government (Federal, Regional, Zonal and Wereda level) is the most challenging issue at stake for effective IWRM in AwRBA. A number of reasons can be listed down, the major are:

- Competition for budget by the different sectors in the different levels of government;
- Lack of well defined strategic and operational plans of the sectors (frequent changing of strategies and plans of sectors, lack of skilled man power);
- Poor communication experience between sectors;
- Political atmosphere (preference direction/strategy of the government like: economic, environmental, agricultural led policy, Growth Transformation Plan);
- Unbalanced scale of investment in the sectors by the Government and donors (the available resource for sectors like: funds, human resources, political focus);
- Awareness of involved parties.

Putting into operation of the Permit based water uses system is the second challenging water governance issue in AwRB. Currently most stakeholders are using the Awash water resources for different uses without permit. Some of the reasons which hinder the implementation of successful permit based water system are:

- Lack of information (hydrological information, lack of understanding of river basin system, lack of stakeholder information);
- Lack of enforcement (political situation, corruption, lack of strong legal instrument);
- Lack of capacity of the executive arm (budget, human resources, strategy, commitment);
- Political atmosphere;
- Awareness of stakeholders, unwillingness/resistance from stakeholders to be registered.

Sustainable financing of water resources development is a third critical challenge in AwRB. The main difficulties for Sustainable financing of water resource development are

- Shortage of allocated funds (from the different levels of government);
- Ineffective water levy system (lack of enforcement, lack of permits, unavailability of charge rate for the different water uses and corruption);
- Ineffective cost recovery principle (lack of enforcement, corruption);
- Political atmosphere.

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