

A thick dark blue vertical bar runs along the left edge of the page. A blue arrow-shaped graphic points to the right, containing the date. In the bottom left corner, several thin, curved lines in dark blue and light grey sweep upwards and to the right.

April 10, 2016

# WATER SECTOR REFORM:

Implementation of IWRM in Awash River Basin, Ethiopia

Bekele  
STUDENT NR 49010

## INTRODUCTION

*“We want to establish a good water governance in the Awash river basin, that improves continuously, by improving mechanisms for cooperation, knowledge sharing and capacity building on the implementation of IWRM in the basin, to increase public health, increase socioeconomic growth, increase the quality of the environment in a sustainable way and eradicate the ever rising water resource management problems” (Global water partnership, 2013, p. 14).*

- *The goal set on the Ethiopian mission to the Netherlands in March 2013*

Global water partnership have put unquestionable efforts to provide developing countries with a good governance framework to implement integrated water resource management for several years now (Petit & Baron, 2009). As result, developing countries has been reforming the water sector over the past two decades under the governance model of Integrated Water Resources Management (IWRM) (Mersha, de Fraiture, Mehari, Masih, & Alamirew, 2015). To mention few from the aim of the reform: integrating water resource management, decentralizing power, user participation, prioritize of domestic use, improvement of the environment and etc (Van Koppen, 2003).

Many African countries have adopted the IWRM approach for managing water resource sustainably (Swatuk, 2005). Following the introduction of the concept in 2000, Ethiopia has set up a water policy, legislation and strategy based on IWRM principles and approaches (Jembere, 2009). The government set up a five-year plan for “Accelerated sustainable development to end poverty, PASDP” which refer to the principles of IWRM that would contribute to the socio-economic development on a sustainable basis (Jembere, 2009).

The case study presented here is based on the project called “Set up of a Water Governance Program in the awash river basin, Central Ethiopia” (Global water centre, 2013: page 6). In this project the Global water centre has been highly elaborated with Ethiopian regional water authority and Dutch water partners to setup a water governance program and implement IWRM in the Awash River basin (Ethiopia Country Water Partnership, 2009).

The National water policy of Ethiopia has been revised based on IWRM and to the better achievement of the gaols, the reform included a corresponding changes like institution and organization reforms (Mersha et al., 2015). This essay argues that the above quoted goal sated by Ethiopian and Dutch regional water authority has not been successful. The good governance they were hoping for did not occurred due to the lack of awareness on the policy provision, capability of river basin organization to exercise their power and lack of institutional support.

## A FRAMEWORK FOR ANALYSIS

I adopt Kemerink J., Mbuvi D. & Schwartz K. (2010) theoretical framework to communicate clearly on the water sector reform in Ethiopia. According to them, shifts in governance of water sector is analysed by using three-dimensional framework, this are institution, organization and polices that involve around the Water Resources at different level. **Organizations** are bureaus with assigned responsibility to improve policy and to take decision in providing services or on regulating the water sector. **Institutions** are the rule and regulation that shapes the human behaviour or choice through time and space. **Policies** are representative or targets to meet the aims and principles (Kemerink et al.,p. 4).

# **1. GOVERNANCE SHIFT IN THE WATER SECTOR**

For the past decade and half a sectoral and sub-sectoral approach to water resource management was the custom in most developing countries (Funke, Oelofse, Hattingh, Ashton, & Turton, 2007). By then applicable policies and legal frameworks lean towards sectoral biases and lacked a comprehensive and reliable method to water resources development and management (Agyenim & Gupta, 2012). Developing countries are now undertaking water sector reform. Therefore, the adaption of the principle of integrated water resource management in to the policies and country plans seems to be similar with other developed countries though the difference emerges in the implementation (Van Koppen, 2003).

Although Ethiopia were facing challenges managing the water sector that was not the only reason for the reform. The motive to revise the water policy under IWRM was driven by the Global water partners and world bank (Jembere, 2009). (Swatuk, 2005) argues that the reform of the water sector has highly political nature. Governments are more willing to reform the water sectors and introduce new policy, institution and establish river basin organization but less interested for the implementation.

Government organisations at the national and region levels, policy makers, water managers, the private sector, professional bodies, non-governmental organizations (NGOs) and all major water users come together on conference to discuss about implementing IWRM principles into water policies (Giordano & Tushaar Shah, 2014). World Bank, as a part of global water governance, develop a lending policy to encourage borrowers to adopt and implement an Integrated Water Resource management policy (Jembere, 2009). (Agyenim & Gupta, 2012) argues developing countries adopt the reform in the water sector under the influence of global network.

Ethiopian government make sure that the bank supported the activity in water sector by adopting the integrated water resource management policy in 2001(Jembere, 2009). The water sector reform was accompanied by new institutions and decentralization including river basin authority (Swatuk, 2005).

# **2. GOVERNANCE SHIFT IN AWASH RIVER BASIN**

Ethiopia is gifted with twelve rivers and Awash River is one of the most utilized and first developed basin in the country (Berhe, Melesse, Hailu, & Sileshi, 2013). The two largest cities in the country are located in the Upper Awash river basin. One of them being the capital city, Addis Ababa. The socio-economic development of the cities largely depend on the river which makes the river greatly utilized and exposed to pollution (Mersha et al., 2015).

The water quality and quantity of Awash River is threaten due to foregoing development activities in awash basin (Water Governance Centre, 2013). To improve the basin ecosystem, Ethiopian water authority signed a water partnership contract with the Dutch Regional Water Authority to establish water governance system and effective implementation of Integrated Water Resources Management (IWRM) in the Awash basin (Water governance centre, 2013).

For the implementation of IWRM and good governance it is seems cleaver to look closely at basic element of governance known as “Three layer model of water governance” that are interrelated: Policy, organization and institution (Global Water Partnership, 2009).

## **2.1 Policy reforms**

Ethiopian national water resource management policy was revised based on integrated water resource management principles. These principles are called Rio-Dublin Principles and adopted from the international conferences in 1992 (Lubell & Edelenbos, 2013).

The central principles of the policy are: (i) safe and accessible water for all; (ii) Water should be treated as both economic and social goods; (iii) Water resources development and decision making process should be decentralized and participatory; (iv) Water resources management shall ensure social equity, economic efficiency, systems reliability and sustainability means; (v) involvement of women in water resource management (Funke et al., 2007).

Policies were reformed to define how the goals of IWRM can be met by involving all stakeholders' perspective in decision making of the development and management of water resources (Swatuk, 2005). The former policy was targeted to ensure water resources were protected and utilized in sustainable manner for social and economic development in the society while the new policy has a provision for establishing Basin Authorities as a unit for implementation of IWRM (Mersha et al., 2015).

(Tamrat I., 2013) argues that the IWRM policy does not address the association between water resources management and land management. Considering the issues are related it should have been addressed on policy document.

This essay argues that the policy changes lack detailed legal texts which leads to mis-interpretation by stakeholders. It doesn't seem many of the stakeholders have sufficient awareness of the policy provision (Mersha et al., 2015). According to Mersha et al., the policy that empowers Basin Authority to manage Transboundary Rivers is contradictory with the constitution which authorizes regions to fully develop and manage water resources within their jurisdiction (2015). The policy also lacks guidelines and arrangements on how the coordination among the actors should occur.

## **2.2 Organizational reforms**

Organizational reforms are one of the layers in governance mode. As discussed above integrated water resource management policy includes decentralization of decision making from higher level to the lowest applicable level (Chéné, 2009). In line with this, river basin organization RBOs is in process of established in every river basin of country.

In the implementation of integrated water resource management policy in Awash Basin, Awash Basin high council and Awash basin authority was established (Tamerat I., 2013). Power and responsibilities to authorities were assigned by the high council ministers (Tamerat I., 2013). The river basin is shared by five regional state and two administrative cities. Consequently, the high council was established representing each cities with the central responsibility and power of ensuring high level coordination among stakeholders (Cherre S., 2001). The basin authority function as a secretariat to the high council. Powers and responsibilities of the Basin Authorities include Initiate policy measures, prepare plan, technical support to High council and several important obligation (Mersha et al., 2015).

This essay argues the river basin organization have not been provided with sufficient human resource, technologies and financial resources to exercise the regulatory and water resources management mandates given to it by the law. (Agyenim & Gupta, 2012) argue that the implementation of IWRM at early level in development countries with different political

culture, insufficient trained human recourse, financial problems, and social system will lead to a new problem instead of solving the existing.

In the Awash River Basin, the existing Awash Basin Water Resources Administration Agency (ABWRRA) was reshaped to form AwBA and stakeholders confused the role of the Basin Authority with ABWRRA's former role which was primarily operational and maintenance of waterworks. The Basin Authority in the new policy has obligation for the development and management of the water resources within the basin (Mersha et al., 2015). Awareness has to be created among stakeholders and capacity building work has to be done on planning and implementation processes (Mkandawire & Mulwafu, 2006). Stakeholders are not participating in decision-making processes. Decisions are taken at higher level and pass on to them and this is not real participation (Van Koppen, 2003).

### **2.3 Institution reform**

For effective implementation of the policy there is also a need of regulation reform. The regulation on the policy document provision provides the requirement for giving permit for different water users and for waste water discharge. However there is no clear regulation on water use and quality standards (Tamrat I., 2013). Although due to lack of regulation for managing demand and conflicts, organizations are facing challenges to enforce the permit system (Jembere, 2009).

The regulations were also provision for the establishment of the awash council and awash basin authority but then again the decentralization was without building local-level capacity and it failed to deliver the responsibilities in awarding the permits and inter-sectoral coordination (Jembere, 2009).

There is no clear distinction of role on planning and management activities. Watershed management in the Awash River Basin is taken to be under authorization of Ministry of Agriculture (MoA) though Ministry of water, irrigation and energy MoWIE, undertake management on lakes and dams within the watershed, in a mean while AwBA considers to be in charge of basin planning (Mersha et al., 2015).

## **CONCLUSION**

International network devoted to water resource management developed through time in response to fresh water stress caused by rapid population growth and misallocation system. The concept of integrated water resource management was developed by policy makers and international bodies like Global water partnership and articulated by the epistemic community. The World Bank developed lending policy to encourage borrowers to adopt and implement IWRM.

Following this, developing countries have been reforming the water sector based on integrated water resource management principles which in short strives for efficiency, equity and sustainable development. Decision making process were changed and new order and rules were established. Ethiopia from one of early adopters puts policy, organization and institution in place for implementation of IWRM. By adopting the policy Ethiopian receive the financial plus the technical assistance from the Global water partnership. The country signs an agreement with the Dutch partners to set up a governance framework and effective implementation of IWRM in Awash River basin. Awash River basin is the most developed basin and indeed in great need of a holistic manner of management system.

This essay argues good governance in integrated water resource management means increasing the role of stakeholders by **creating ownership sense** and minimizing the state involvement.

However, the condition in Awash River basin illustrate that the implementation of IWRM was not successful. Policies were missing detailed legal text and has not been implemented due to lack of information and awareness. Financial issue and absence of skilled manpower has been restraint for the awash basin authority to mandate basin level water management. Finally, the regulation on the policy document doesn't show the effective implementation of IWRM. The existing institution on water permit and discharge payment is found to be challenging to undertake due to lack of set water use and water quality standards. Countries which appreciate the water sector reform are now a days shifting their focus more on water governance than only the concept of IWRM.

This shift can be related to the existing literature of Edwin Rap (2006), the “success of policy model: irrigation management transfer”. It is a good example of politics of policy where policy reforms are influenced by the epistemic community and bank lending policy that encourages the reform. The global network who share a set of ideas and knowledge on how water resource management or other related issue should be, will produce a policy concerning that specific issue. Countries will accept and implement the policy without really understanding the concept or the challenges and it will be seen as an effective solution for any problem in question when the reality is different. Water reforms will always have high political nature.

## LITERATURE

- Agyenim, J. B., & Gupta, J. (2012). IWRM and developing countries: Implementation challenges in Ghana. *Physics and Chemistry of the Earth, Parts A/B/C*, 47–48, 46-57. doi:
- Berhe, F. T., Melesse, A. M., Hailu, D., & Sileshi, Y. (2013). MODSIM-based water allocation modeling of Awash River Basin, Ethiopia. *CATENA*, 109, 118-128. doi:
- Chéné, J.-M. (2009). Integrated Water Resources Management: Theory versus practice. *Natural Resources Forum*, 33(1), 2-5. doi:10.1111/j.1477-8947.2009.01203.x
- Funke, N., Oelofse, S. H. H., Hattingh, J., Ashton, P. J., & Turton, A. R. (2007). IWRM in developing countries: Lessons from the Mhlathuze Catchment in South Africa. *Physics and Chemistry of the Earth, Parts A/B/C*, 32(15–18), 1237-1245. doi:
- Jembere, K. (2009). Implementing IWRM in a catchment: Lessons from Ethiopia. *Waterlines*, 28(1), 63-78. doi:doi:10.3362/1756-3488.2009.006
- Lubell, M., & Edelenbos, J. (2013). Integrated water resources management: A comparative laboratory for water governance. *International Journal of Water Governance*, 1(3-4), 177-196.
- Mersha, A., de Fraiture, C., Mehari, A., Masih, I., & Alamirew, T. (2015). Integrated Water Resources Management: Contrasting principles, policy, and practice Awash River Basin, Ethiopia. *Water Policy*. doi:10.2166/wp.2015.049
- Mkandawire, T. W., & Mulwafu, W. O. (2006). An analysis of IWRM capacity needs in Malawi. *Physics and Chemistry of the Earth, Parts A/B/C*, 31(15–16), 738-744. doi:
- Petit, O., & Baron, C. (2009). Integrated Water Resources Management: From general principles to its implementation by the state. The case of Burkina Faso. *Natural Resources Forum*, 33(1), 49-59. doi:10.1111/j.1477-8947.2009.01208.x
- Swatuk, L. A. (2005). Political challenges to implementing IWRM in Southern Africa. *Physics and Chemistry of the Earth, Parts A/B/C*, 30(11–16), 872-880. doi:
- Van Koppen, B. (2003). Water reform in Sub-Saharan Africa: what is the difference? *Physics and Chemistry of the Earth, Parts A/B/C*, 28(20–27), 1047-1053. doi:
- Ethiopia Country Water Partnership. (2009). Final project report of IWRM Implementation Project in Ethiopia
- Water Governance Centre. (2013). Report on Assessment of Water Governance Capacity in the Awash river basin, Ethiopia

Global Water Partnership (GWP). (2009). A Handbook for Integrated Water Resources Management in Basins

African Development Bank. (2000). Policy for Integrated Water Resources Management

Imeru Tamrat, 2013. Awash River Basin Water Project Report on Water Policy and Institution

Cherre, S. (2001). Irrigation Policies , Strategies and Institutional Support Conditions in Ethiopia, 113–120.