



ADDIS ABABA UNIVERSITY
SCHOOL OF LAW
GRADUATE STUDIES PROGRAM

***ETHIOPIA'S INTER-STATE WATER MANAGEMENT IN
LIGHT OF THE FEDERAL SYSTEM: A COMPARATIVE
STUDY***

BY: - ANAGAW ZERIHUN

SEPTEMBER, 2020
ADDIS ABABA, ETHIOPIA

ADDIS ABABA UNIVERSITY
SCHOOL OF LAW
GRADUATE STUDIES PROGRAM

***ETHIOPIA'S INTER-STATE WATER MANAGEMENT IN
LIGHT OF THE FEDERAL SYSTEM: A COMPARATIVE
STUDY***

***SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR
THE DEGREE OF MASTERS IN LAW (LL.M) IN PUBLIC
INTERNATIONAL LAW AT ADDIS ABABA UNIVERSITY, SCHOOL OF
LAW***

BY: - ANAGAW ZERIHUN GEBEYEHU

ADVISOR: - JETU EDOSA (ASSISTANT PROFESSOR)

**SEPTEMBER, 2020
ADDIS ABABA, ETHIOPIA**

DECLARATION

I hereby declare that this research is original and has never been presented in any other institution. To the best of my knowledge and belief, I also declare that any information used has been duly acknowledged.

ANAGAW ZERIHUN

Signature: _____

This thesis has been submitted for examination with my approval as University advisor.

JETU EDOSA (Assistant Professor)

Signature: _____

APPROVAL SHEET

APPROVED BY EXAMINERS

Title:- Ethiopia's Inter-State Water Management In Light Of The Federal System: A Comparative Study

By: Anagaw Zerihun

Examiners

1. Muradu Abdo (Assistant Professor)

Signature

Date

2. Dr. Dereje Zeleke

Signature

Date

Table of Contents

Acknowledgement	i
Acronyms	ii
Abstract	iii
CHAPTER ONE	
INTRODUCTION	- 1 -
1. Background of the Study	- 1 -
2. Statement of the Problem	- 4 -
3. Objectives of the study.....	- 7 -
3.1. General Objectives.....	- 7 -
3.2. Specific Objectives	- 7 -
4. Research Methodology	- 7 -
5. Significance of the Study	- 8 -
6. Scope of the study	- 8 -
7. Structure of the Research.....	- 9 -
CHAPTER TWO	
ETHIOPIA’S INTER-STATE WATER MANAGEMENT	- 10 -
2.1. Historical Background.....	- 10 -
2.2. Inter-State Water Management under the Constitution	- 12 -
2.3. The Ethiopian Water Resources Management Proclamation	- 13 -
2.4. Ethiopian Water Resources Management Policy and Water Sector Strategy	- 14 -
2.5. Integrated Water Resources Management (IWRM)	- 15 -
2.6. Basin Based Water Management	- 16 -
2.7. Dispute Settlement Mechanisms.....	- 17 -
2.8. Institutions Responsible for Water Management	- 19 -
2.8.1. The Ministry of Water Resources (MoWR), Ministry of Water, Irrigation and Energy	- 19 -
2.8.2. Regional Water Administration and Irrigation offices.....	- 19 -
2.8.3. Basin Based Water Management Institutions	- 20 -
A. Awash Basin Authority.....	- 20 -
B. Abay Basin Authority	- 21 -
CHAPTER THREE	- 23 -
THE INTER-STATE WATER MANAGEMENT PRACTICE OF SELECTED FEDERAL COUNTRIES	- 23 -
Introduction.....	- 23 -

3.1. United States of America	- 24 -
3.2. India	- 27 -
3.3. Federal Republic of Nigeria	- 30 -
3.4. Ethiopia’s Water Management Framework in Contrast	- 32 -
CHAPTER FOUR	- 36 -
A COMPARATIVE LOOK INTO ETHIOPIA’S INTER-STATE WATER MANAGEMENT ..	- 36 -
4.1. The Legal Framework for Inter-State Water Management in Ethiopia	- 36 -
4.2. Dispute Settlement Mechanisms set for Interstate water disputes in Ethiopia	- 37 -
4.2.1. Administrative and Institutional Mechanisms	- 37 -
4.2.2. Judicial Dispute Settlement Mechanisms	- 38 -
4.3. A comparative look at the level of autonomy federal units have on interstate water management in Ethiopia	- 38 -
4.4. Lessons to be Learned and the Challenges Ahead for Ethiopia	- 41 -
CHAPTER FIVE	- 44 -
CONCLUSION AND RECOMMENDATIONS	- 44 -
5.1. Conclusion	- 44 -
5.2. Recommendations	- 46 -
Bibliography	- 47 -

Acknowledgement

My sincere gratitude goes to my Advisor Jetu Edosa (Assistant Professor) for his constructive comments from the beginning to the end of this thesis.

I would also like to thank my whole loving family for being there for me always.

Acronyms

IWRM	Integrated Water Resources Management
WRM	Water Resources Management
FDRE	Federal Democratic Republic of Ethiopia
BHC	Basin High Council
USA	United States of America
GDP	Gross Domestic Product
MoWR	Ministry of Water Resources
RBO	River Basin Organization
R(L)BA	River (Lakes) Basin Authorities
MoWIE	Ministry of Water, Irrigation and Energy
BOWRD	Bureau of Water Resource Development
IRWDA	Interstate (River) Water Disputes Act of 1956
RBA	River Boards Act of 1956
RBDA	River Basin Development Authority, Nigeria
SWAs	State Water Agencies
RBA	River Basin Authority
AwBA	Awash Basin Authority
ABA	Abay Basin Authority
RWBs	Regional Water Bureaus
HOF	House of Federation
CoM	Council of Ministers

Abstract

The allocation and management of water resources between States poses a serious challenge at the national level. Autonomous federal entities contest the utilization and allocation of shared water bodies. The FDRE Constitution treats water as a natural endowment owned by all the people of Ethiopia. The Constitution centralized the management of interstate waters and their allocation and utilization thereof under the Federal government and the House of Peoples Representatives.

The researcher tried to comparatively study the interstate water management and dispute settlement in Ethiopia with selected federal countries. With regard to interstate water dispute settlement Ethiopia has underdeveloped interstate water conflict settlement apparatus. Other than the assignment of the BHC to resolving disputes between regions there are no institutions with the main role of resolving disagreements, there is no clear procedure to dispute settlement and appeal from any decision to be made by the BHC.

The researcher commends that; Ethiopia should reconsider its centralized water management and decentralize interstate water management roles to regional states. Ethiopia also should strengthen institution's that will handle interstate water from the Ministry to Basin Authorities main organs, the Basin High Council and Basin Authority in a participatory and effective manner. There should also be a clear and effective dispute settlement body that will handle fallouts between government bodies and institutions.

CHAPTER ONE INTRODUCTION

1. Background of the Study

The Ethiopian Federal structure has been established under the 1995 Constitution as a Federal Democratic Republic consisting Regional States delimited mainly on the basis of language and ethnic identity.¹ A federal system of government is expected to facilitate management of natural resources including the water resources of the country² as the existence of co-ordinate authorities independent of each other is the gist of the federal principle.³

On the basis of the Constitution, all law making power concerning water and the allocation and management of interstate rivers throughout the country rests with the federal government.⁴ According to the Constitution, it is the Federal government that has the mandate to enact laws for the utilization and conservation of land and other natural resources including water resources of the country⁵ while the Regional States have the mandate to administer land and other natural resources including water in accordance with federal laws.⁶ It further stipulates that the federal government shall determine and administer the utilization of the waters or rivers or lakes linking two or more Regional States or crossing the boundaries of the national territorial jurisdiction.⁷

The decentralization of power in water management is emphasized in many international instruments without regard to the system of government followed by a country being unitary or

¹Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No.1/1995, Article 1 & 47.

²Imeru Tamrat, 'Policy and Legal Framework for Water Resources Management in Ethiopia', Forum of Federations, International Conference on Water Management in Federal and Federal-Type Countries, pp 7.

³A. Singh and A. K. Gosain, 'Resolving conflicts over transboundary watercourses: an Indian perspective', Land Use and Water Resources Research 4, Indian Institute of Technology, India, Delhi, [2004], pp 3, <https://www.researchgate.net/publication/246534207_Resolving_conflicts_over_transboundary_watercourses_an_Indian_perspective&usq=AOvVaw01b6prQZh4f63TrNPryGe4>, accessed September 3 2019.

⁴FDRE Constitution, Article 51 (5), (11).

⁵Ibid, Article 51 (5).

⁶Ibid, Article 52 (2) (d).

⁷Ibid, Article 51 (11).

federal. Decentralization is vital for water management and it is agreed that national governments tend to give lower priority to the water sector than local governments.⁸

The second principle of the 1992 International Conference on Water and Environment (ICWE) agreement states that water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels,⁹ for decisions to be made in the lowest possible level of government. It also includes public consultation and participation of users on projects implementation and planning.¹⁰ According to the ICWE, close involvement of local stakeholders and decentralization needs to be implemented in a transparent, accountable and participatory manner with supportive and enabling policies, legislation, regulation and adequate capacity within local governments.¹¹

The FDRE Constitution gives the Federal government a wide range of powers and the main role as regards water resources management.¹² When we look at the regulation of interstate waters and the legal and institutional framework to resolve water based disputes the system is underdeveloped. The Basin High Council which was empowered to resolve interstate water management disputes is not still fully functional. The remaining remedy for a water disputant or claimant will be the Constitutional inter-state conflict resolution authority given to the House of the Federation.¹³

The Ethiopian National Water Strategy and Policy took a basin based approach that treats each basin as a whole for the purpose of its development.¹⁴ On interstate waters, the strategy indicates that in order to strengthen the institutional framework, appropriate linkage mechanisms are to be

⁸‘Water Sector Governance in Africa’, Water Partnership Program (WPP) of the African Development Bank, Volume 1, Theory and Practice, pp 19.

⁹Ibid, pp 18.

¹⁰Ibid.

¹¹Ibid.

¹²Imeru, Note 2, pp 9.

¹³FDRE Constitution, Article 62 (6).

¹⁴‘Ethiopian Water Sector Strategy’, The Federal Democratic Republic of Ethiopia, Ministry of Water Resources, (2001), pp 1.

planned and implemented to secure co-ordination of water resources management schemes at both federal and regional levels.¹⁵

In accordance with the basin based approach twelve basins and sub-basins were identified throughout the country to be administrated by basin organizations. Three basin organizations were established henceforth. The Basin Organizations were anticipated to be managers of the water resources in the basin addressing competing and at times conflicting demands by integrating the interests of the different stakeholders to identify and address priority issues.¹⁶ The principles of Integrated Water Resources Management (IWRM) which require the federal government to administer basins as one integrated resource and to devolve its powers to the regions were inculcated into the policy and other water management legislations and water strategy of the country.¹⁷

Beyond the water management, the vital issue of proper and well established system for handling of interstate water allocation or utilization disagreement arises. Competition over resources like water could increasingly become a source of tension and even conflict between states and sectors.¹⁸ The most effective way to manage water in a sustainable way is for all the stakeholders of a common water resource to put in place mechanisms and modalities for resolving water disputes if and when they arise.¹⁹

¹⁵Ibid.

¹⁶‘IWRM Implementation Project in Ethiopia’, Global Water Partnership Eastern Africa, Ethiopia Country Water Partnership, Final Project Report, Project supported by the United States Department of State [USDoS], (May 2009), pp 3, <https://www.gwp.org/globalassets/global/activities/eastern-africa/ethiopia-burundi-kenya-project/ecwp-final-report-may-2009.pdf&ved=2ahUKEwjYr9XH_qnpAhVV3IUKHWZODvMQFjAAegQIBBAC&usg=AOvVaw1xYFgK27p8H7Jbm8S6KrJS>, accessed October 14 2019.

¹⁷Ibid.

¹⁸Yona Shamir, ‘Alternative Dispute Resolution Approaches And Their Application In Water Management: A Focus On Negotiation, Mediation And Consensus Building’, UNESCO-IHP, pp 1, <<http://unesdoc.unesco.org/images/0013/001332/133287e.pdf>>, accessed May 30 2019.

¹⁹Ibid.

Institutions that could resolve interstate water disputes are underdeveloped in Ethiopia, like independent courts.²⁰ The Basin High Council established by River Basin Councils and Authorities Proclamation is mandated to resolve conflicts among the regional states.²¹ It is still not functional and its members are still to be determined by the CoM.²² The Basin Authority also has power to give advice and technical support to the BHC and the Ministry on dispute resolution in relation to the allocation and use of water resources of the basin.²³

The other option beyond the BHC and Basin Authorities to remedy interstate water disagreements is the House of Federation²⁴ which is empowered to find solutions to disputes or disagreements that may arise between Regional States.

2. Statement of the Problem

Water is a scarce resource; and Ethiopia is dependent on water more than any other resource. Water is the backbone of its agriculture (including pastoralist) sector, energy sector (hydro power), and other economic sectors like tourism. The FDRE Constitution arrays a federal system of government which allows States self-rule.²⁵

Almost all regional constitutions give autonomous right of administration and ownership to some identified ethnic group;²⁶ which created high sentiment and deep attachment to resources. What makes the interstate water management problem more significant is the spatial and uneven

²⁰Solomon Yimenu, 'Water Resource Management in Ethiopia: Normative and institutional analysis', (LLM Thesis, University of Gondar, School of Law, 2016), pp 108, <https://www.abysinnialaw.com/resources/category/23-environmental-law%3Fdownload%3D1783:water-resource-management-in-ethiopia-normative-and-institutional-analysis&ved=2ahUKEwipw-bR_6npAhUuz4UKHeGOCasQFjAAegQIBBAB&usg=AOvVaw3s0zERtk-6NUPWOVAgLJRM>, accessed March 10 2020.

²¹River Basin Councils and Authorities Proclamation No. 534/2007, Article 6/6/.

²²Ibid, Article 5.

²³Ibid, Article 9/8/.

²⁴FDRE Constitution, Article 62/6/.

²⁵ Ibid, Preamble, Article 52/2/a/, Article 88/1/

²⁶Article 8 of the Regional Constitutions of the Oromia Region and SNNPR, Article 9 of the Regional Constitutions of Afar, Somali and Gambella Regional States.

distribution of water in the regions.²⁷ Giving the regions more controlling power will make water scarce for some regions; and giving more centralized role to the central government will go against the federal principle of self-administration and the IWRM principle of decentralization. Federal systems from USA to India and Nigeria face similar problems in creating equilibrium between state interests on interstate waters and in balancing the interest of downstream and upstream provinces.

The main water resources problem in Ethiopia emanates from its being spatial and temporal occurrence and distribution.²⁸ Almost 90 percent of Ethiopia's water resource is found in the four river basins namely; Abay (Blue Nile), Tekeze, Baro Akobo, and Omo Gibe in the west and south-western part of Ethiopia where the population is no more than forty per cent.²⁹ On the other hand, the water resource available in the east and central river basins is only about ten to twenty percent whereas the population in these basins is over sixty percent.³⁰ This spatial and uneven water distribution problem clearly demands proper interstate management and administration of water in Ethiopia.

The problem the researcher is going to address in this paper is not about water scarcity and water utilization. Rather, how these scarce water resources especially interstate waters are shared and managed between States' in our federal system of government.

Even though Ethiopia implements a federal system of government where States' have autonomous self-rule under the constitution; on interstate water management, powers are accumulated under the Federal government. In this paper the researcher tries to look into the interstate water management and sharing practice of other federal countries and how they manage interstate water resources.

²⁷'Ethiopian Water Resources Management Policy', The Federal Democratic Republic of Ethiopia, Ministry of Water Resources, pp ii.

²⁸Ibid.

²⁹Ibid.

³⁰Ibid.

The problem is still prevalent in stressed basins even though it didn't become a burning concern of States'. Utilization is not the only issue becoming controversial, but also allocation and priority of water use. Even though Ethiopia's water policy gives highest priority to drinking water for the population and livestock, regulations regarding allocation of water resources between consumptive uses are not always enforced.³¹ In Harar, the main source of the city's water supply, Lake Alemaya, was pumped dry by farmers growing chat that led the city to construct a new, costly water supply system.³²

In India, the Inter-State River Water Disputes Act 1956 introduced a procedure for addressing disputes among states concerning interstate rivers that have not been solved through negotiations.³³ It provides for the establishment of specific tribunals to adjudicate such conflicts which has been used in several cases. In Ethiopia, even though the inter-State friction on water and other resource sharing is becoming tough, the preparedness in the legal framework and institutional set up is insufficient and underdeveloped. In this paper the researcher would analyze the approach followed by Ethiopia with regard to management of interstate waters and the system set to resolve interstate disputes in comparison with other federal countries.

Therefore, the researcher will address the issues in light of the following research questions; -

→How best is integrated management of interstate waters and decentralization of water management roles balanced in Ethiopia's interstate water management system?

→Is there a capable and sufficient legal and institutional scheme to resolve interstate disputes in water management, allocation and utilization in Ethiopia?

³¹'Ethiopia: Managing Water Resources to Maximize Sustainable Growth', A World Bank Water Resources Assistance Strategy for Ethiopia, The World Bank Agriculture and Rural Development Department, Report No. 36000-ET, (2006), pp 16, <<https://openknowledge.worldbank.org/bitstream/handle/10986/8170/360000REVISED01final1text1and1cover.pdf?sequence=1>> , accessed September 19 2019.

³²Ibid.

³³Srinivas Chokkaku, 'The Political Geographies of Interstate Water Disputes in India', (Doctor of Philosophy Dissertation, University of Washington, Department of Geography, 2015), pp 36, <https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/33942/Chokkaku_washington_0250E_14_326.pdf?sequence=1&isAllowed=y>, accessed May 31 2019.

3. Objectives of the study

3.1.General Objectives

In our dominantly agrarian society where almost 85 percent of livelihood depends on agriculture and affected by limited water resource, the issue of water governance is vital.

This paper provides an overview of water management with regard to waters crossing State boundaries with comparative review of other federal countries. It will look into Ethiopian laws and institutions set for management of inter-State rivers and water bodies in detail. The comparative study part will assess the inter-State water management scheme of selected federal countries. The researcher will look at the interstate water allocation and sharing scheme set to deal with disagreements and conflicts in water use and utilization. It will comparatively discuss the dispute settlement framework of the selected federal countries with the legal and institutional framework of Ethiopia on interstate water management.

3.2. Specific Objectives

- Analyzing the legal and institutional framework in managing interstate water management and utilization in Ethiopia.
- A comparative analysis at Ethiopia's interstate water management in balancing the interest of states in water management and handling of interstate water disputes, besides what lessons could be learned from other Federal countries on interstate water management.

4. Research Methodology

The research is a qualitative one. The study is conducted by comparative doctrinal method. The researcher tried to exhaustively address the research questions through literature review. In making the critical analysis the researcher resorted to primary sources like laws, proclamations, agreements, and regulations concerning water and also government policy documents on water management. In addition, the researcher also reviewed secondary sources including books, journals, articles, research papers and other relevant reports and documents. Internet sites are also used for the study. As the research is a comparative one the interstate water management of selected federal countries was also exhaustively assessed through literature review. In doing so the researcher used primary sources such as laws and policy documents plus secondary sources.

The researcher tried to diversify the selected experiences to make it much relevant. The experience of USA is developed through long time to become source of international water law principles and further tested by practice. The USA experience on federalism and water management can be exemplary and best to learn from as Ethiopia is new for federalism and water management. The Indian experience on the other hand has comprehensive laws and experiences that can be learned from. The researcher also picked the Nigerian experience for the comparative study as the system of administration and the problems they faced are relatable to Ethiopia.

5. Significance of the Study

One of the main challenges of federal countries is management of shared resources. One of the critical resources sometimes creating conflict of interest is water. Countries face challenge in managing inter-State waters and rivers. On this point Ethiopia is not an exception. Even though it didn't become a principal point of dispute; the rising population and scarcity of land and water resources is making water use critical and controversial in some stressed basins like the Awash Basin.

Regional States' are building their capacity to utilize their water resources through support of large scale irrigation and dams. It is imperative for the federal government and Ethiopia at large to assess and prepare for a water sharing and management scheme that takes into account the system of government and the self-ruling autonomy of regional units. This thesis can be essential in showing the lacuna in law regarding interstate water management, in looking at institutional capacity and preparedness and in pointing out the experience of other federal systems.

6. Scope of the study

The thesis will focus on interstate water management under Ethiopian water law including the constitution, proclamations and regulations. It will look into policy documents regarding interstate water management. As it is a comparative study it will look into the water management systems of three selected federal countries. The study will look into the system of water administration these countries are following and their experience in handling interstate water management in a federal system of government and making a comparative analysis with Ethiopia's water management system and framework.

7. Structure of the Research

The thesis is arranged in five chapters. The first chapter of the study outlines the general background, statement of the problem, objectives, methodology, scope and significance of the research.

The second chapter talks about Ethiopia's interstate water management with examination of Ethiopia's water law and policy going through the FDRE constitution, proclamations, regional constitutions and laws, policy documents and agreements. It will also take overview of institutions responsible for water management. The water dispute resolution system/scheme of Ethiopia will be assessed in detail.

The third chapter of the study will look at selected experiences of three federal countries; USA, India and Nigeria. Chapter four of the study analyses a comparative examination of the interstate water management and water dispute resolution of Ethiopia with the selected experiences of other federal countries. The final chapter of the study contains conclusion and recommendations.

CHAPTER TWO

ETHIOPIA'S INTER-STATE WATER MANAGEMENT

2.1. Historical Background

Ethiopia was a unitary State before 1995. Water and other natural resources were managed and governed in a centralized manner. After 1995, with the coming into effect of the FDRE Constitution, Ethiopia has become a Federal Republic with autonomous State's having self-rule rights in resource management.

When we look at the institutional development of the water sector in Ethiopia, during the Monarchical regime (until 1974); the water sector was managed by a National Board that was chaired by the Prime Minister.³⁴ Similarly, during the Military Socialist regime (until-1991), the affairs of the national water resources were strictly regulated under the direct auspices of the Council of Ministers, which was chaired by the Head of State and from 1991 onwards, the Ethiopian water sector regulation was given to a federal ministry with the establishment of the Ministry of Water Resources.³⁵

From agriculture to industry; power generation (hydropower covers 90 percent of Ethiopia's electricity)³⁶ to tourism and transport; water is vital to every sector of the day to day life of Ethiopia. There has been conflict on water utilization between societies from time immemorial. As there was no comprehensive and modernized utilization of water, like large scale irrigation and large dam building, water utilization and allocation wasn't a focal political and economic subject in the political arena. Rather water use is a cause of conflict for pastoralists and agriculturalists in water stressed areas.

³⁴Berhanu Hailu Woldemariam, 'Water Resource Management in Ethiopia: The Case of Addis Ababa', (MSc Thesis, Discipline of Geography, School of Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, 2009), pp 64, <<https://researchspace.ukzn.ac.za/bitstream/handle/10413/7099/Woldemariam%20MSc.pdf?sequence=1&isAllowed=y>>, accessed September 19 2019.

³⁵Ibid, pp 65.

³⁶Ethiopia, Note 29, pp xiv.

According to a study conducted by Catholic Relief Services, in 2006 at least 40 people died in Kenya and Ethiopia in continuing clashes over water, livestock, and grazing land. The cause as the study shows was unequal distribution and use of water resources leading to degradation of sources of water.”³⁷

Agriculture is by far the largest part of the economy at approximately fifty percent of the GDP and growing on average five percent per year.³⁸ Ethiopia has an estimated 3.7 million hectares of irrigable land, with only about 200,000 hectares, less than ten percent of the total irrigated and only providing approximately three percent of the country's food crop requirements.³⁹ Ethiopia also has considerable hydropower potential. From the national energy production, hydropower holds ninety percent of the generated energy.⁴⁰

Water scarcity is mainly caused by its being seasonal and spatial, and the main solution forwarded was using the untouched surface water through the building of reservoirs and dams. It is estimated that currently artificial reservoir storage in Ethiopia is only about 43 cubic meters per capita in contrast to 750 cubic meters per capita in South Africa and 6,150 cubic meters’ per capita reservoir storage in North America.⁴¹

The Ethiopian Hydropower Strategy additionally gives the federal government the power to define the size and scope of small hydropower schemes or projects for each region.⁴²

In Ethiopia, as in all societies, there has always been a struggle in managing and sharing water intensified by population growth. The struggle has been for the reduction of the destructive

³⁷Jason Gehrig and Mark M. Rogers, ‘Water and Conflict, Incorporating Peace building into Water Development’, Catholic Relief Services, United States Conference of Catholic Bishops, (2009), pp 5, <<https://www.crs.org/sites/default/files/tools-research/water-and-conflict.pdf>> , accessed September 19 2019.

³⁸Girma Taddese and others, ‘Economic Importance and Environmental Challenges of the Awash River Basin to Ethiopia’, (2004), pp 258 <<https://pdfs.semanticscholar.org/80ea/d4c57e9d086d9791dd62875a0bc58fa52225.pdf>>, accessed February 26 2020.

³⁹Ibid.

⁴⁰Ethiopia, Note 29, pp xiv.

⁴¹Ibid, pp xvi.

⁴²Ibid, pp 15.

impacts of water and increases its productive impacts.⁴³ One of the challenges that constrain the development of Ethiopia is the complex water resources legacy and a lack of access to, and management of, these water resources.⁴⁴

Water management powers are found accumulated in the hands of the federal government. As one study shows, one of the major elements of the political economy landscape in Ethiopia includes continued centralization of power and state control of land⁴⁵ and water resources.

2.2. Inter-State Water Management under the Constitution

Federalism was introduced in Ethiopia under the FDRE Constitution, with the main element of self-administration. The Constitution gives Regional States autonomy over their affairs. With regard to water administration, the Constitution defines the powers and functions of the Federal government and Regional States concerning the country's water resources management and administration. According to Article 51/5/ of the Constitution, it is the Federal government that has the mandate to enact laws for the utilization and conservation of land and other natural resources including water resources of the country while the Regional States are mandated only to administer land, water and other natural resources in accordance with federal laws.

The governance and utilization of all interstate water bodies is the power of the federal government. On the basis of Article 51/11/ of the Constitution, the determination and regulation of the use, allocation and protection of the water resources of the country as well as its administration largely rests upon the Federal Government. If we look at the five big river basins of Ethiopia which account, more than ninety percent of the countries surface water; are all trans-regional; which means all of them are administered by the federal government. That leads us to the inference that almost all water bodies, especially rivers in Ethiopia are governed by the federal government.

⁴³Ibid, pp xii.

⁴⁴Ibid.

⁴⁵Yacob Arsano and others, 'Governance and Drivers of Change in Ethiopia's Water Supply Sector', A study conducted by the Organization for Social Science Research in Eastern and Southern Africa (OSSREA) in collaboration with the Overseas Development Institute (ODI), (May 2010), pp 31, <<https://www.odi.org%2Fresources%2Fdocs%2F6109.pdf&usg=AOvVaw1wLH2vLr9M-c5BbhqL-xJB>> , accessed April 12 2019.

The only power over water given to the Regional States under the Constitution is the administration of water bodies and rivers that are confined to the territory of the state. Even this water governance and management of the states is subject to the laws issued by the federal government (Article 52(d)). According to the Constitution, States have no law making power even for the water bodies that are not interstate. The House of Peoples Representatives under Article 55 is empowered to pass legislation on utilization of land and other natural resources, of rivers and lakes crossing the boundaries of Ethiopia or those flowing through two or more Regional States.

The constitutional provisions regarding the management and administration of water resources in Ethiopia indicate that it is the Federal Government that has centralized and broader authority for water resources management in Ethiopia.⁴⁶

2.3. The Ethiopian Water Resources Management Proclamation

The Ethiopian Water Resources Management Proclamation no. 197/2000 governs the management, utilization and protection of water resources in Ethiopia. The Proclamation provides for the water resources management and administration in the country to be based on the Ethiopian Water Resource Management Policy, the Integrated Basin Master Plan Studies and other water management and water resources laws.⁴⁷

Article 8 of the Proclamation designated the Ministry of Water Resources as a central organ of water management and assigned as the supervising body at the federal level. The Ministry has all power to decide on utilization and administration of interstate water. It is within its powers to delegate other organs (which may include Regional State's) its authority.⁴⁸ Overall, the Proclamation follows a centralized approach by giving the Ministry of Water Resources, a federal organ, the main jurisdiction over the management, utilization and administration of the water resources of the country.

⁴⁶Ibid.

⁴⁷Ethiopian Water Resources Management Proclamation No.197/2000, Article 6.

⁴⁸Ibid, Article 8/2/.

Following the proclamation, Regulation number 115/2005 was issued with the objective of providing detailed provisions for its effective implementation.

2.4. Ethiopian Water Resources Management Policy and Water Sector Strategy

The Ethiopian Water Resources Management Policy aims at the enhancement and promotion of all national efforts to efficient and equitable utilization of all Ethiopian water resources for a sustainable and optimum use.⁴⁹ One of the fundamental principles pertaining to the formulation of the National Water Strategy states that water is a natural endowment commonly owned by all the people of Ethiopia. The integration of development plans and water utilization schemes of federal and state governments with national socio-economic objectives I also stressed as vital by the national water strategy.⁵⁰

The National Water Strategy took a basin based ‘Integrated River Basin Development Master Plans’ that treat each basin as a whole for the purpose of its development and master plan studies, and not project by project. With regard to interstate waters, the strategy indicates that in order to strengthen the institutional framework, appropriate linkage mechanisms are to be planned and implemented to secure co-ordination of water resources management schemes at both federal and regional levels. The Ethiopian Hydropower Strategy gives the federal government the power to define the size and scope of small hydro schemes for each region based on their respective existing and projected capacities to undertake the tasks relevant to the design and implementation of these schemes.⁵¹

The Ethiopian water policy clearly indicates that it is based on the constitutional provisions for water resources management and the overall macro-economic, social policies and development policies of Ethiopia.⁵² Text wise, the policy states that it follows a decentralized approach ensuring the participation of all stakeholders in decision making in all aspects of water resources

⁴⁹Ethiopian Water Sector Strategy, Note 14, pp 1.

⁵⁰Ibid, pp 3.

⁵¹Ibid, pp 15.

⁵²Ibid.

management. It emphasizes the necessity of an Integrated Water Resources Management approach and that all aspects of water resources management including the management of surface and groundwater resources, and other water issues to be treated in an integrated manner.

The Policy document articulates the need to establish river basin organizations on a phase by phase basis for the sustainable and integrated management of the water resources of the country.

2.5. Integrated Water Resources Management (IWRM)

One of the leading international principles of Integrated Water Resources Management (IWRM) were adopted into Ethiopian Water Management Policy. The principles of IWRM were inculcated into the policy and other water management legislations and water strategy of the country.⁵³ Integrated water resources management is a scientific and systematic method for the sustainable development and allocation of water resource utilization in a comprehensive way.⁵⁴

IWRM is all about integration of water management and at the same time decentralization of responsibility to all levels of government. Institutionally, IWRM demands water management to be participatory of all stakeholders. Alike international regulatory trends, most national legislators have adopted the modern concept of resource oriented integrated management, with regard to river basin administration as an appropriate structure to water management.⁵⁵

IWRM's basic principles of integration and decentralization require the federal government to administer basins as one integrated resource and it is also required to distribute and pass its powers to the Regional States in addition to making them part of decision making in the basin

⁵³IWRM Implementation, Note 16, pp 3.

⁵⁴'Integrated Water Resources Management for River Basin Organizations', International Network for Capacity Building in IWRM (Cap-Net), UNDP, Training Manual, South Africa, Pretoria, (June 2008), pp 1, <https://www.gwp.org/globalassets/global/toolbox/references/iwr-for-river-basin-organisations-capnet-2008.pdf&ved=2ahUKewi0z-aa_6npAhVFCxoKHU6JCWQQFjAAegQIAhAB&usg=AOvVaw1mm1U-Pf7OvXHrjKBD780C>, accessed November 13 2019.

⁵⁵Ute Mager, 'International Water Law; Global Developments and Regional Examples', *Miscellanea Juridica Heidelbergensia*, Edited by Juristische Fakultat and Ruprecht-Karls-Universität Heidelberg, Germany, Heidelberg, 2015, pp 18, <https://www.jura.uni-heidelberg.de/md/jura/mat/band_3_international_water_law.pdf>, accessed on September 11 2020.

management. With regard to coordination and cooperation between the Federal government and Regional States, the Constitution clearly states (even though not explicit) the prospect of delegating the powers and functions given to the Federal government to Regional States.⁵⁶ But, it is not mandatorily stated rather it depends on the willingness of the Federal government whether to delegate its power to the States or Basin Authorities. On the other hand the Ethiopian Water Management Policy which clearly adopts the river basin as the basic unit for water resources management of the country and the subsequent laws provide for delegation to relevant organs although Regional States and River Basin Organizations are not mentioned specifically.⁵⁷

2.6. Basin Based Water Management

When the water management policy follows an approach of water management that looks at a basin as a unit, Basin Organizations were anticipated to be managers of the water resources in the basin addressing competing and at times conflicting demands by integrating the interests of the different stakeholders to identify and address priority issues.⁵⁸ Studies found that there are problems of lack of autonomy and recognition of the role of stakeholders in basin organizations which limited their role to participate in decision making.⁵⁹

The River Basin Councils and Authorities Proclamation⁶⁰ is aimed at decentralization of most of the functions of the Federal government on water resources planning and management functions to River Basin Organizations at the basin level. In accordance with this, the Council of Ministers established the Abay, Rift-Valley and Awash Basin Authorities. MoWIE delegated a substantial portion of its administrative power to these river basin organizations.⁶¹

The central government by giving its power for the establishment of river basin councils and authorities contributed in creating efficient and stable mechanisms for the implementation of the

⁵⁶Imeru, Note 2, pp 11.

⁵⁷Ibid.

⁵⁸IWRM, Note 52, pp ii.

⁵⁹Ibid.

⁶⁰River Basin Councils and Authorities Proclamation No. 534/2007.

⁶¹'Awash Basin Water Allocation Strategic Plan', Awash Basin Authority, (June 2017), pp 6.

Ethiopian Water Resources Management Policy⁶² which shows that to some extent the central government tries to decentralize its power.⁶³

Decentralization is based on the principle that “nothing should be done at a higher level of government that can be done satisfactorily at a lower level.”⁶⁴ The IWRM principle and the Ethiopian Water Policy call for decentralization of water powers and integration of administration of water resources as reflected in the approach to establish basin management authorities for hydrologically demarcated water basins.⁶⁵

The River Basin Councils and Authorities Proclamation also do not have any provision regarding inter-sectoral coordination for water resources management at both the Federal and Regional levels.⁶⁶ The effective implementation of the Proclamation and of the Integrated River Basin Master Plans is largely dependent on such coordination.⁶⁷

Approach adopted in Ethiopia for water resource management under the basin based management is to decentralize water resources administration and management functions at the basin level.

The Basin Organizations have two main bodies; Basin High Councils and Basin Authority which will be established by Council of Ministers Regulations.⁶⁸ Basin High Council is the highest policy and strategic decision making body and Basin Authority is the administrative and technical arm of the High Council.⁶⁹

2.7. Dispute Settlement Mechanisms

Most water conflicts are caused by inadequate and poor water resource management than shortage or lack of access to water.⁷⁰ Water management becomes unsuccessful mainly due to lack of

⁶²Ibid.

⁶³Solomon, Note 20, pp 9.

⁶⁴Ibid, pp 107.

⁶⁵Ibid.

⁶⁶Ibid.

⁶⁷Ibid.

⁶⁸River Basin Councils and Authorities Proclamation No. 534/2007, Article 3.

⁶⁹Ibid, Article 8 & 9.

⁷⁰Alexander Carius and others, ‘Water, Conflict, and Cooperation’, The United Nations and Environmental Security, Policy Brief, ECSP Report, Issue 10, (2004), pp 61, <https://issuu.com/ecspwwc/docs/ecspr10_unf-

adequate water institutions, inadequate administrative capacity, lack of transparency, ambiguous jurisdictions, overlapping functions, fragmented institutional structures, and lack of necessary infrastructure.⁷¹

Water management is highly complex and extremely political,⁷² and balancing such competing interests over water allocation and managing water scarcity require strong institutions.⁷³

In Ethiopia, there are no well-developed institutions established by law to resolve interstate water disputes, like independent courts to water issues.⁷⁴ Under the River Basin Councils and Authorities Proclamation, the Basin High Council is mandated to resolve conflicts among the regional states but not between ministries or bureaus at the Federal and Regional levels or between basin authority and Regional administrations where likely tensions may arise.⁷⁵ The Basin Authority also has power to give advice and technical support to the BHC and the Ministry on dispute resolution in relation to the allocation and use of water resources of the basin.⁷⁶

But the Basin High Council is not still fully functional. The Council members and the accountability of the body are still to be determined by the Council of Ministers.⁷⁷ Other than these two organs, the remedy remaining is the Constitutional Inter-State conflict resolution power given to the House of Federation under Article 62/6/, as the House is empowered to find solutions to disputes or disagreements that may arise between Regional States. This may also include handling of disagreements or disputes that may arise between the federal government and Regional States. There is no instance up to the researcher's investigation where States brought water based disputes to the House of Federation.

[caribelko&ved=2ahUKEwiRiZOTgarpAhUGyxoKHVE6AMQQFjACegQIAxAB&usg=AOvVaw3NXsojfdhUKEHf0U8K3jId&cshid=1589141025942](https://www.caribelko.com/ved=2ahUKEwiRiZOTgarpAhUGyxoKHVE6AMQQFjACegQIAxAB&usg=AOvVaw3NXsojfdhUKEHf0U8K3jId&cshid=1589141025942)>, accessed May 31 2019.

⁷¹Ibid.

⁷²Ibid.

⁷³Ibid.

⁷⁴Solomon, Note 20, pp 108.

⁷⁵River Basin Councils and Authorities Proclamation No. 534/2007, Article 6/6/.

⁷⁶Ibid, Article 9/8/.

⁷⁷Ibid, Article 5.

2.8. Institutions Responsible for Water Management

Underdeveloped countries like Ethiopia face challenges in managing resources mainly because of poor and undeveloped institutions. In Ethiopia it is reflected in the water resources management sector where there is weak management institutions and capacity.⁷⁸

The following institutions are responsible for water resources management in Ethiopia.

2.8.1. The Ministry of Water Resources (MoWR), Ministry of Water, Irrigation and Energy

The Ministry of Water Resources (MoWR) is responsible for formulating national water policy, strategy and action plans and for establishing national standards pertaining to water quality, water infrastructure and other relevant standards.⁷⁹ Proclamation No. 1097/2018 reestablished the Ministry as The Ministry of Water Irrigation and Energy. The Ministry is empowered for supervision and following up of implementation of policy and strategy instruments as well as overall sector standards. The Ministry also provides technical support to regional water bureaus.⁸⁰

The Ministry is designated as a supervising body at the federal level concerning water management.⁸¹ The Proclamation empowers it with the responsibility which includes allocation of water resources.⁸² According to the official website of the Ministry, it also provides technical support to four regional water offices identified as ‘emerging regions’.

2.8.2. Regional Water Administration and Irrigation offices

Regional water bureaus at the regional level as an executive organ are responsible for the implementation of federal policies, strategies and action plans through adapting them to the specific conditions of the region, in addition to delegated duties from the Ministry of Water Resources.⁸³ There are also irrigation offices at regional levels that implement federal policies and

⁷⁸IWRM, Note 52, pp 58.

⁷⁹Yacob, Note 45, pp 9.

⁸⁰Ibid.

⁸¹Ethiopian Water Resources Management Proclamation No. 197/2000, Article 2(7).

⁸²Ibid, Article 8(1).

⁸³Yacob, Note 45, pp 9.

also work on small scale irrigation projects. Such irrigation offices are also under the auspices of the federal Ministry of Agriculture.

Regional States have no power on water except the administration of waters confined to their boundary. If a State has a river that crosses regional boundary it will have to wait for the federal government for the establishment of a Basin Authority (only three basin authorities are established out of the 12 identified basins and sub basins by the federal government). And it is under the willingness of the federal government if that particular State will take part in decision making or management or be part of any decision making body such as the Basin Council or Authority.

2.8.3. Basin Based Water Management Institutions

What should be noted here is that decentralization is not about making extension of power. If the federal government established basin organizations, but does not involve the concerned States in the basin as decision makers, that will make the basin organs extension of the federal government's centralization of water management. The researcher selected Abay and Awash Basin Authorities for brief analysis.

A. Awash Basin Authority

The Awash Basin Authority was established in accordance with the River Basin Councils and Authorities Proclamation No. 534/2007. Awash Basin is the most utilized river basin in Ethiopia so far.⁸⁴ It is the most stressed basin because of its location in the most populated central highlands of Ethiopia. Also the expansion of commercial large scale agriculture and industrialization which are dependent on the Awash water pressure the basin. It covers a total area of 114,123 km² that embraces five regional states and two city administrations.⁸⁵

In line with the economic development of the basin, a number of institutional arrangements were implemented.⁸⁶ The Basin Council and Authority are the two main organs of the Awash Basin Authority. One of the Councils roles is the allocation of water in addition to ensuring high level

⁸⁴Awash Basin, Note 61, pp v.

⁸⁵Ibid.

⁸⁶Ibid.

coordination among stakeholders for the implementation of Integrated Water Resources Management (IWRM) in the basin.⁸⁷

According to the Awash Basin Water Allocation Strategic Plan (2017), the Awash Basin Authority will try to involve many collaborative players and stakeholders throughout the basin.⁸⁸ It stressed that, establishing networks between the resource management agencies in the five regions will be very effective way of achieving practical capacity building not only for this strategy but for Integrated Water Resource Management generally.⁸⁹

The Strategic Plan further states that the Authority has important role of translating national policy and strategy into sustainable development and management at basin level, with a participatory stakeholder involvement of all regions in the basin. The main regional bureaus involved will be the water resources and agricultural, natural resources development bureaus and irrigation development agencies. These bureaus/agencies will have the responsibility to integrate or merge the basin wide strategic activities and issues with their regional development plan with the framework of growth and transformation program that guides socioeconomic and sector planning in each region.⁹⁰

B. Abay Basin Authority

Abay Basin is the most important Basin in Ethiopia with 199,812 km² area, covering 45 percent of the countries surface water and encompassing three Regional States.⁹¹ The Council of Ministers established the Abay Basin High Council and Authority as an autonomous public organ having its own legal personality.⁹² The Regulation stated that the overall objective of the

⁸⁷Ibid, pp 7.

⁸⁸Ibid, pp 35.

⁸⁹Ibid.

⁹⁰Ibid.

⁹¹Girmachew Addisu, 'Water Resources Management in Abay River Basin', Abbay Basin Authority, WRM-JTR Kick-off Meeting, Addis Ababa, (April 2018), pp 5, <https://www.cmpethiopia.org/content/download/3028/12432/file/Abay%2520Basin_Part1_Pdf.pdf&ved=2ahUKEwiGubWWgKrpAhWE3YUKHchCDVcQFjAAegQIBBAB&usq=AOvVaw2DHogIe_WrEj9X1s3e7rKd>, accessed March 9 2020.

⁹²Regulation No. 151/2008, Article 4.

Authority shall be to promote and monitor the implementation of integrated water resources management process in an equitable and participatory manner in the Abay basin.⁹³

The Abay Basin Authority was established with the mission to contribute for overall sustainable development in the basin by ensuring integrated, participatory, equitable and sustainable water resource management, by creating favorable conditions for the better protection, conservation of the ecosystem, through knowledge building and being the center of excellence.⁹⁴ It has the Basin High Council and the Basin Authority as main organs. Members of the High Council are to be designated by the federal government which shall be accountable to the Council of Ministers.⁹⁵ Because the Council members' designation is left to the total control of the federal government, there is uncertainty as to the participation of regional States in the basin authorities.⁹⁶

⁹³Ibid, Article 3.

⁹⁴Girmachew, Note 91, pp 9.

⁹⁵Regulation No. 151/2008, Article 5.

⁹⁶Imeru, Note 2, pp 32.

CHAPTER THREE

THE INTER-STATE WATER MANAGEMENT PRACTICE OF SELECTED FEDERAL COUNTRIES

Introduction

Water and federalism are a complicated mix as waterflows through the hydrologic cycle without regard to political boundaries,⁹⁷ and because physical boundaries of river basins do not coincide with boundaries of political jurisdictions.⁹⁸ What makes interstate water management difficult is the diverse, and conflicting interests of the States and the Federal government.⁹⁹

Federal governments take different approaches in resource sharing between their federal units. What makes all the approaches similar is the autonomous and self-administering nature of the administrative units and the challenge of the central government to balance the conflict of interest between the units themselves on the one hand and the national or federal interest and interests of individual states on the other side. This conflict becomes even more highlighted in federal systems like India and the United States of America because in these countries majority of the rivers are interstate and the states have substantial power over the water resources, frequently resulting in interstate disputes.¹⁰⁰

The same is true for Ethiopia as almost all the basins are interstate; crossing more than one State boundary. In federal countries, interstate water sharing and allocation is an area of great concern

⁹⁷Lynn A. Mandarano and others, 'Institutions for Interstate Water Resources Management', Journal of The American Water Resources Association, American Water Resources Association, Vol. 44, No. 1, [February 2008], pp 136, <<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1752-1688.2007.00143.x&ved=2ahUKEwj936jEgKrpAhUDixoKHQyZBacQFjAAegQIAhAB&usg=AOvVaw3xL6ZcmYAyMkbnHgGXQa7n>> accessed March 12 2019.

⁹⁸Ibid.

⁹⁹Ibid.

¹⁰⁰Taniya Malik, 'Inter-State River Water Disputes: A study in the light of the federal principle in India', International Journal of Humanities and Social Science Invention ISSN (Online), Volume 4, Issue 10, [October 2015], pp 1, <[http://www.ijhssi.org/papers/v4\(10\)/A041010107.pdf&ved=2ahUKEwj4iqbmgKrpAhVxyoUKHcp8CziQFjAAegQIBRAB&usg=AOvVaw0DuAp6eqX8MMBIEn5jjJqM](http://www.ijhssi.org/papers/v4(10)/A041010107.pdf&ved=2ahUKEwj4iqbmgKrpAhVxyoUKHcp8CziQFjAAegQIBRAB&usg=AOvVaw0DuAp6eqX8MMBIEn5jjJqM)>, accessed March 12 2019.

in maintaining the federal spirit and achieve enhanced interstate relations.¹⁰¹ It is not an easy task, and the constructing of efficient and equitable mechanisms for sharing interstate waters between federal units has long been a tough subject in all federal countries.¹⁰² In this chapter, the researcher tries to comparatively analyze water management especially interstate water management of three selected federal countries.

3.1. United States of America

The United States of America has a federal system of government often mentioned as an exemplary democratic federal arrangement. The Constitution of the US grants States the right to administer their own water. Accordingly, States regulate water through their legislature. The water rights law of the State of California under the general state powers over water section number 102, states that “all water within the State is the common property of the people of the State.”¹⁰³ In another instance, the State of Oklahoma property ownership law regulates the ownership level for types of water from diffused water to streams, ground water and definite streams. According to the law of the State, stream water is public water subject to appropriation.¹⁰⁴

Water is managed primarily at the State level in the USA. States sharing a basin or any water body can agree an interstate compact on water sharing and allocation. If agreement could not be reached Congress may intervene and allocate water between the States. The other organ having jurisdiction over water allocation is the Supreme Court. Upon submission by states, the court may entertain any water dispute between states and can decide on water sharing and allocation.

There have been interstate dispute concerning water in the United States as long at its history. The water dispute between Virginia and Maryland for instance lasted for more than two hundred

¹⁰¹Ibid.

¹⁰²Ibid.

¹⁰³‘Statutory Water Rights Law and Related California Code Sections (as amended, including Statutes 2018)’, California State Water Resources Control Board, Compiled by the Office of Chief Counsel, January 2019, <https://www.waterboards.ca.gov/laws_regulations/docs/wrlaws.pdf>, accessed May 31 2019.

¹⁰⁴-----‘Water Law and Management in Oklahoma’, pp 1, <https://www.owrb.ok.gov/supply/ocwp/pdf_ocwp/WaterPlanUpdate/joint_committee/WATER%20LAW_MANAGEMENT%20IN%20OKLAHOMA.pdf>, accessed May 31 2019.

years. The State of Maryland and Virginia also had been clashing over apportioning of the Potomac.¹⁰⁵ There was even time where water dispute between Arizona and California almost went to war in 1934 to halt the construction of Parker Dam over the Colorado River.¹⁰⁶

Interstate water can be managed between states in three ways in the USA. First, equitable apportionment where the U.S. Supreme Court through litigation must decide the equities that exist to divide the water; second, direct Congressional apportionment where Congress divides the water as set forth in a federal statute; and thirdly, interstate agreed apportionment by negotiated compact that is approved by Congress.¹⁰⁷ States are the main decision makers of apportionments and allocations with the most input in agreements and negotiations dividing shared water.¹⁰⁸

We can mention two interstate compacts, the first being Florida, Georgia, and Alabama's ACF (Apalachicola-Chattahoochee-Flint) Compact, and the ACT (Alabama-Coosa-Tallapoosa) Compact between Georgia and Alabama agreeing on water allocation and assignment of a Commission participating all basin states as voting members and one nonvoting federal commissioner.¹⁰⁹

States always can always take their interstate water disputes to the Supreme Court, which is customary as it can be shown from the case of Arizona and California alone where there have been ten cases in a span of seventy years.¹¹⁰

¹⁰⁵Thomas Sansonetti & Sylvia Quast, 'Not Just a Western Issue Anymore: Water Disputes in the Eastern United States', (An Agricultural Law Research Article, University of Arkansas, System Division of Agriculture, Cumberland Law Review, Vol. 34:2, 2003), pp 190, <https://nationalaglawcenter.org/wp-content/uploads/assets/biarticles/sansonetti-quast_issue.pdf>, accessed May 31 2019.

¹⁰⁶Stephen C. McCaffrey, 'Lessons of Inter-State Water Dispute Settlement in the United States and Beyond', (Seminar, University of the Pacific, McGeorge School of Law, Transboundary Water Dispute Prevention and Settlement in Europe: Do We Have Effective Tools and Mechanisms at Hand?, Budapest, 2016), pp 7, <https://www.unece.org/fileadmin/DAM/env/documents/2016/wat/12Dec_01-02_Budapest_7thIC/Budapest_Seminar_McCaffrey.pdf&ved=2ahUKEwi0uPr2garpAhVCyYUKHcFICTEQFjAAe_gQIBRAC&usq=AOvVaw29pL8USRfwNLih94h7jIp7>, accessed May 31 2019.

¹⁰⁷Water Law and Management, Note 105, pp 17.

¹⁰⁸Ibid.

¹⁰⁹Thomas, Note 105, pp 188.

¹¹⁰Stephen, Note 106, pp 18.

Framers of the US Constitution expected states to resolve water related interstate conflicts among themselves through the use of interstate compacts.¹¹¹ On this point, the Supreme Court concluded in *New York vs. New Jersey*, (1921), that such conflicts are "more likely to be wisely solved by cooperative study and by conference and mutual concession between States rather than by court proceedings."¹¹²

In the US Congress is the main legislator. On water management it may allocate interstate waters directly. It may also allow the States to negotiate a compact and allocate water between them. All compacts shall go through Congress approval before taking effect.¹¹³ Among other things, interstate compacts may establish interstate agencies known as Compact Commissions, consisting of one or more commissioners from each state, plus one or more non-voting federal commissioners.¹¹⁴

States in the USA resolve their interstate water allocation conflicts through Congressional action and adjudication by the Supreme Court, in addition to interstate compacts.¹¹⁵ Even though water management and allocation are primarily regulated by states, the federal government retains authority related to federal water resources management and federal water rights. In cases where states could not agree on sharing and allocation of interstate waters, and if conflict arose following that; Congress is authorized to act.¹¹⁶

¹¹¹Jonathan P. Deason and others, 'Water policy in the United States: a perspective', *Water Policy* 3, (2001), pp 190, <https://www.researchgate.net/publication/228890911_Water_policy_in_the_United_States_A_perspective>, accessed March 13 2020.

¹¹²Ibid.

¹¹³Betsy A. Cody and others, 'Selected Federal Water Activities: Agencies, Authorities, and Congressional Committees', Congressional Research Service, CRS Report, [May 2017], pp 33, <<https://fas.org/sgp/crs/misc/R42653.pdf>>, accessed September 19 2019.

¹¹⁴Water Law and Management, Note 105, pp 17.

¹¹⁵Stefano Burchi, 'Water Resource Agreements Among States and Provinces of Federal Countries – A Comparative Review', Forum of Federations, Development Law Service, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy, pp 2, <<http://www.forumfed.org/libdocs/SpainWater2008/Stefano%20Burchi.pdf>>, accessed September 19 2019.

¹¹⁶Betsy, Note 113, pp 20.

The other water management scheme in the US that is basin based is the establishment of river basin commissions by the Congress which participates representatives from states in the basin and delegates from federal agencies.¹¹⁷

3.2. India

Over 85 percent of India's territory lies within its major and medium interstate rivers.¹¹⁸ In India; as most rivers are cross boundary, coming up with efficient and equitable mechanisms for managing and allocating water resources between States has long been an important legal issue.¹¹⁹ The pressure of the ever-increasing population and the threat of scarcity and unequal distribution of water have surrounded it in an area of continued conflict and debate.¹²⁰

Under Indian law, water is primarily a state subject matter, giving State's right to make water laws.¹²¹ The interstate character of the Indian rivers has given rise to a number of disputes between the federal units at interstate level¹²² leading to violence and civil unrest in more than one instance.¹²³ Indian interstate river dispute settlement procedures contrast from negotiations and compulsory legal adjudication to mediation, conciliation and voluntary arbitration.¹²⁴

Indian interstate river dispute settlement procedures may involve either negotiations or compulsory legal adjudication.¹²⁵ Beyond negotiations and adjudication, states can also resort to

¹¹⁷Ibid, pp 33.

¹¹⁸Ibid.

¹¹⁹Alan Richards & Nirvikar Singh, 'Inter State Water Disputes in India: Institutions and Policies', (University of California, Department of Environmental Studies & Department of Economics, Santa Cruz, USA, 2001), pp 2, <https://www.ssrn.com%2Fabstract%3D289997&usg=AOvVaw2JFu-ZevDpwTxrSXHX_F6M>, accessed September 19 2019.

¹²⁰Taniya, Note 100, pp 1.

¹²¹Indian Constitution, Entry 17 in the State List, <https://www.india.gov.in%2Fsites%2Fupload_files%2Fnpi%2Ffiles%2Fcoi_part_full.pdf&usg=AOvVaw0T8bQU-XpyC3FtapMwKVw5>, accessed March 12 2020.

¹²²Taniya, Note 100, pp 3.

¹²³Srinivas, Note 33, pp 2.

¹²⁴Alan, Note 119, pp 2.

¹²⁵Ibid, pp 22.

other alternative dispute settlement methods such as mediation, conciliation and voluntary arbitration.¹²⁶

The Interstate (River) Water Disputes Act of 1956 (IRWDA 1956) guides the resolution of interstate water disputes.¹²⁷ The Act provides for constituting independent tribunals by the federal government for resolving the disputes, where mediations between States conducted by the federal government fail. It bars the jurisdiction of any court, including the Supreme Court, drawing on the provisions of Article 262 in the constitution.¹²⁸ As per the Act, the tribunals' decisions or awards carry the same force as that of a Supreme Court decree; non-appealable and final.¹²⁹

The IRWDA arrangements have been criticized for being time consuming and the approach of states non respecting awards by not executing accordingly¹³⁰ resulting in several amendments to the Act.¹³¹ The ineffectiveness also stems from other functional inadequacies and inefficiencies.¹³² Nonetheless, nonconformity of States to tribunal awards becomes a greater challenge indicating the structural problem associated with the federal state relations.¹³³

The most controversial section of the IRWDA, Clause 11, bars the Supreme Court's jurisdiction over interstate water disputes that were referred to a Tribunal.¹³⁴ The main argument being, the jurisdictional bar could hurt federalism, and could be compromising states' rights to appeal if the disputes were to get referred to a federal appointed tribunal as the states would be at the mercy of the central government.¹³⁵

¹²⁶Ibid.

¹²⁷Srinivas, Note 33, pp 36.

¹²⁸Ibid.

¹²⁹Ibid.

¹³⁰Ibid.

¹³¹Ibid.

¹³²Ibid, pp 40.

¹³³Ibid.

¹³⁴Ibid, pp 112.

¹³⁵Ibid, pp 113.

The Inter-State Water Disputes Act provides clear procedures for handling of water disputes, which though permitted wide discretion and different disputes have followed diverse paths to settlement leading to continued disagreement and litigation.¹³⁶

The other law regarding interstate rivers in India is the River Boards Act 1956 (RBA 1956); which enables setting up of river boards by the government to regulate and develop interstate rivers and valleys.¹³⁷ According to the RBA, in cases of any difference between states over the advice of boards, judicial arbitration can be resorted to.¹³⁸ The Act puts no obligations on states for implementing the decisions of boards restricted to technical functions; which are often set up to implement or manage specific projects.¹³⁹ The RBA under Section 2 provides that it is expedient in the public interest that the federal government should take under its control the regulation and development of interstate rivers and river valleys.

The conflict resolution among riparian states have some principles underline which in most of the cases falls under the principle of absolute territorial sovereignty, the principle of absolute territorial integrity, principle of prior appropriation, principle of no significant harm and the principle of equitable apportionment.¹⁴⁰

In India what makes interstate dispute settlements difficult is the delay in process that makes them costly.¹⁴¹ There is also the problem of enforcement as in many cases State governments reject tribunal awards.¹⁴² Current institutions do not do a good job of resolving interstate water disputes due to lack of well-defined procedures, and deficiency in the design of the relevant institutions.¹⁴³

¹³⁶Alan, Note 119, pp 5.

¹³⁷Berhanu, Note 34, pp 39.

¹³⁸Ibid.

¹³⁹Ibid.

¹⁴⁰Singh, Note 3, pp 1.

¹⁴¹Alan, Note 119, pp 24.

¹⁴²Ibid, pp 26.

¹⁴³Ibid.

The Supreme Court is authorized to interpret the Constitution of India as well as deciding upon disputes arising out of state-federal relations.¹⁴⁴ The Indian Constitution, in certain circumstances, empowers the federal government to interfere in the matters of the states, which places the states in a subordinate position.¹⁴⁵

3.3. Federal Republic of Nigeria

Nigeria is a federation made up of 36 states¹⁴⁶ abundantly blessed with water resources and divided into 8 hydrological areas.¹⁴⁷ The 1993 Water Resources Act, vests ownership of all water courses affecting more than one state of the federation, as well as all underground water throughout the federation in the federal government. By virtue of this law, the management power of all transboundary rivers and lakes belong to the federal government.¹⁴⁸

The National Water Policy of Nigeria¹⁴⁹ states that, all water, wherever it occurs in the water cycle is a national asset and resource common to all, the use of which shall be subject to national control having a consistent status in law. The Policy calls for decentralization of water management power to the lower level of government mainly to the established eight hydrological areas as the basic units of water resources management in Nigeria.¹⁵⁰ In Nigeria, water supply is on the concurrent legislative list,¹⁵¹ and the three levels of government, federal, state and local; share responsibility for water resources management.¹⁵² The Federal government represented by the Ministry of Water Resources and its agencies is responsible for policy formulation and macro

¹⁴⁴Ibid.

¹⁴⁵Singh, Note 3, pp 3.

¹⁴⁶I J Goldface Irokalibe, 'Water Management in Federal and Federal-Type Countries: Nigerian Perspectives', Ahmadu Bello University, Zaria, Nigeria, pp 2, <https://www.africaportal.org%2Fdocuments%2F8111%2FJoe_Goldface_en.pdf&usg=AOvVaw3ZqaYOEjG6TZ-4jy8l1ite> , accessed June 12 2019.

¹⁴⁷Ibid.

¹⁴⁸Ibid, pp 13.

¹⁴⁹'National Water Policy', Federal Republic of Nigeria, July 2004, <<http://extwprlegs1.fao.org/docs/pdf/nig158231.pdf>>, accessed March 7 2020.

¹⁵⁰Ibid, pp 9.

¹⁵¹Goldface, Note 146, pp 3.

¹⁵²Ibid, pp 4.

planning at the national level while State governments are responsible for water resources management at a State level.¹⁵³

The Policy calls for river basin organizations to be created in accordance with the eight hydrological areas of Nigeria; in order to carry out a water resource management to be done in an integrated and demand driven manner.¹⁵⁴ The administration of water rights in Nigeria is not restricted to only one particular tier of government, rather the federal and state governments through various agencies and ministries influence the administration of water resources.¹⁵⁵

The present set up in Nigeria allows every state of the federation to have their own water agencies with its enabling laws.¹⁵⁶ The absence of an effective and functional water resources management strategy has left the various states and the federal government pursuing their respective water agenda.¹⁵⁷

The River Basin Development Authorities (RBDAs) came into existence following the promulgation of Decree 25 of 1976, as vehicle for attaining a national water resources development system.¹⁵⁸ Basin Authorities are empowered for the administration of water including both surface and underground in addition to their power to construct and maintain dams, irrigation and drainage system and supply of water to all users.¹⁵⁹

According to the RBDAs Act,¹⁶⁰ basin based authorities became at once both suppliers and consumers of water, as well as development managers and regulators of water and water

¹⁵³National Water Policy, Note 150, pp 14.

¹⁵⁴Ibid.

¹⁵⁵Goldface, Note 146, pp 13.

¹⁵⁶Ibid.

¹⁵⁷Ibid.

¹⁵⁸Ibid, pp 6.

¹⁵⁹Ibid.

¹⁶⁰River Basins Development Authorities (RBDA) Act, cap 396 Laws of the Federation of Nigeria, (1990), <http://3A%2F%2Ffaolex.fao.org%2Fdocs%2Fpdf%2Fnig18394.pdf&usg=AOvVaw2HXjruTdbm5m_TPvUeQ5y2> , accessed April 4 2020.

resources causing conflict of interests.¹⁶¹ The Authorities are also empowered to supply water from completed storage schemes to all users for a fee to be determined by the Authority concerned¹⁶² without enforcement authority against defaulters.¹⁶³ Because of this, basin authorities could have no financial independence becoming dependent on the federal government.¹⁶⁴

The operational domains of Nigeria's River Basin Development Authorities are delineated by political boundaries and not hydrologically.¹⁶⁵ The Authorities are composed of staffs that represent the political boundary of basins which allows Basin Development Authorities to independently and without coordination exploit basin water for the development of irrigation agriculture in the respective States.¹⁶⁶

Currently, Nigeria is trying to put in place a comprehensive national water management regime allowing different agencies at federal, state and local level of government to pursue different water agenda¹⁶⁷ as reflected in the Komadougou-Yobe basin.¹⁶⁸

3.4. Ethiopia's Water Management Framework in Contrast

Institutional arrangements for water resources development and management in Ethiopia are organized at federal level, at basin level and local level. At federal level water management is led by the Ministry of Water Resources. The main decision maker in water management in Ethiopia is the federal government. Regional states and other organs need delegation of power from the federal government to have a say on shared interstate waters. At regional level, regional water offices are responsible for water resource management.¹⁶⁹

¹⁶¹Goldface, Note 146, pp 6.

¹⁶²Ibid, pp 7.

¹⁶³Ibid.

¹⁶⁴Ibid, pp 8.

¹⁶⁵Ibid, pp 7.

¹⁶⁶Ibid.

¹⁶⁷Ibid, pp 5.

¹⁶⁸Ibid, pp 18.

¹⁶⁹ Karlsson Johan, 'Scoping study of water resource management in the textile industry in Ethiopia', SIWI Paper 23, SIWI, Stockholm, (2015), pp 19, <<https://www.siwi.org/wp->

All or some of the powers and duties in the field of water resource management may be allocated at basin level to the Regional States or River Basin Organizations comprising a Basin High Council and River Basin Authorities.¹⁷⁰ River Basin Authorities are accountable to the Basin High Council for political matters and to the Ministry of Water, Irrigation and Energy for technical issues.¹⁷¹ One of the powers assigned to the High Council is to resolve disputes arising between States. Other than the BHC, there is no institution or body with the main role of administering inter-State water conflict or disputes.

United States of America has the most developed and tested democratic federal structure and clear water management regime. In the USA, water is the primary subject matter of States. With regard to shared waters, three bodies have decision making power. The first one is the U.S. Supreme Court, which has jurisdiction over water disputes between States. The other body is the Congress. The Congress can decide on water apportionment when States could not agree to negotiate a water utilization or allocation scheme between them. Thirdly, States also can agree a negotiated compact between themselves which will need approval by Congress.¹⁷² In these compacts agreeing States can also establish interstate agencies known as Compact Commissions which will manage the shared water according to the compact. In all these, States have the most input on how interstate water is divided by negotiating a compact agreement that apportions the water.¹⁷³

In India, water is primarily a State subject matter. States' can negotiate disputes concerning shared water or they can take their issue to compulsory legal adjudication. The Supreme Court has ultimate jurisdiction over disputes between States which includes water disputes. The Interstate Water Disputes Act of 1956 provides for constituting independent tribunals by the federal government for resolving the disputes, after mediations by the federal government fail barring the jurisdiction of any court, including the Supreme Court against tribunal decisions. The

[content/uploads/2015/09/EthiHD.pdf&sa=U&ved=2ahUKEwj5x4CZgLTpAhUQ3IUKHX2qAdkQFjAAegQIABA&usq=AOvVaw1ZWscqjV8hvk2AjN5YInMQ](https://www.researchgate.net/publication/338111111/content/uploads/2015/09/EthiHD.pdf&sa=U&ved=2ahUKEwj5x4CZgLTpAhUQ3IUKHX2qAdkQFjAAegQIABA&usq=AOvVaw1ZWscqjV8hvk2AjN5YInMQ)>, accessed March 7 2020.

¹⁷⁰Ibid.

¹⁷¹Ibid.

¹⁷²Water Law and Management, Note 105, pp 17.

¹⁷³Ibid.

other institution set up with regard to interstate rivers by the River Boards Act 1956 (RBA 1956) are River Boards. They are aimed at regulation and development of interstate rivers or sometimes to manage certain projects. Board advices and decisions can be appealed to the courts.

In Nigeria, ownership and administration of all transboundary rivers and lakes lies on the federal government (the 1993 Water Resources Act of Nigeria). The central institution in the water management of Nigeria is the Ministry of Water Resources, a federal organ. In addition, the River Basin Development Authorities are empowered to undertake comprehensive development of both surface and underground water.¹⁷⁴

Ethiopia's institutional framework is underdeveloped. As the federal government is mainly responsible for water management, the central organ administering interstate water is the Ministry of Water Resources. Regional States can only get interstate water allocation and administration powers through delegation by the federal government. The most anticipated organs expected to decentralize water power to States were the River Basin Authorities. But, the federal government could not establish more than three Basin Authorities (Abay, Awash & Rift-Valley) from the identified 12 basins.¹⁷⁵ Even these three River Basin Authorities could not become fully functional and effective to meet the needs of basin States and other stakeholders.

The Indian Constitution under Article 262/1/ clearly regulates interstate water disputes and how it should be adjudicated. In the USA, a State having issues over a shared river can negotiate with a neighboring State and enter into a compact. If agreement cannot be reached, the disputants could take their case to the Supreme Court. This clear inter-state water dispute settlement mechanism will make the interstate water management predictable, swift and in accordance with federal principles.

The Indian inter-state water management institutional framework is complicated and time taking compared to the USA. In India, States can negotiate water use disagreements between themselves.

¹⁷⁴Goldface, Note 146, pp 5.

¹⁷⁵ Helen Parker, 'A thirsty future? Water strategies for Ethiopia's new development era', Overseas Development Institute (ODI) Report, (August 2016), pp 29, <<https://www.odi.org/publications/10535-thirsty-future-water-strategies-ethiopia-new-development-era>>, accessed March 14 2020.

If they could not reach an agreement, they can refer their case to the federal government which will constitute independent tribunal. Courts also have role in dealing with inter-state water disputes in India.

CHAPTER FOUR

A COMPARATIVE LOOK INTO ETHIOPIA'S INTER-STATE WATER MANAGEMENT

4.1. The Legal Framework for Inter-State Water Management in Ethiopia

A federal system of government is characterized by the decentralization of significant responsibility to local level administrations which has the potential to better serve the interests of ordinary citizens.¹⁷⁶ The management of interstate water resources according to the Ethiopian Constitution falls within the federal jurisdiction, placed under the Ministry of Water, Irrigation and Energy (MoWIE).¹⁷⁷ Water resources development and management in Ethiopia is organized into a three-tiered hierarchy; policy maker and standard setter at federal level, resource manager at basin level and service provider at a local level.¹⁷⁸

According to a study conducted,¹⁷⁹ informants at the regional level noticed blockages and contestation in the decentralization processes. According to the informants, large scale projects like construction of dams for surface water development and operational licenses for large contractors as an example have not yet been decentralized from federal to regional levels.¹⁸⁰ Additionally, some roles involving standard of work and quality of standards and development of master plans in projects remain under the exclusive power domain of the federal government.¹⁸¹ As the study concluded, this continued central control over such contracts and the lack of regional participation in and non-transparency of decision making processes presents a serious risk of corruption and may lead to the assignment of contracts to politically favored regions or groups; even if this issue needs further investigation.¹⁸²

¹⁷⁶Yacob, Note 45, pp xii.

¹⁷⁷Karlsson, Note 170, pp 19.

¹⁷⁸Ibid.

¹⁷⁹Yacob, Note 45, pp 22.

¹⁸⁰Ibid.

¹⁸¹Ibid.

¹⁸²Ibid.

4.2. Dispute Settlement Mechanisms set for Interstate water disputes in Ethiopia

4.2.1. Administrative and Institutional Mechanisms

Ethiopia follows a federal system of government. Similar to all federal systems of government, Ethiopia faces challenges in balancing the interests of federal units in allocation and management of shared natural resources. On water, the FDRE Constitution states that Ethiopian people have common ownership of the country's water resources.¹⁸³ The administration of interstate water bodies in Ethiopia and the legal and institutional framework set against any conflict that may arise need thorough assessment. In this section the researcher will look into the administrative and institutional mechanisms set to resolve interstate water disputes.

The FDRE Constitution did not clearly state about any dispute settlement mechanism specifically for water sharing disputes. In general terms, the Constitution empowered the House of Federation to strive in finding solutions to disputes or misunderstandings that may arise between States.¹⁸⁴ The ultimate authority to resolve interstate conflicts is this House. There were no cases submitted on water sharing and interstate waters to the House up to the researchers' knowledge. Even though it may assign experts on water sharing for advice and recommendation, this body has no water management experience or practice whatsoever.

The River Basin Councils and Authorities Proclamation No. 534/2007 calls for the establishment of River Basin Organizations for the management of water resources at the basin level. Following the Proclamation, Basin Authorities were formed by subsequent regulations. River Basin Organizations have two main organs, Basin High Councils (BHCs) and Basin Authority. The Council is the highest policy and strategic decision making body given mandates to deliberate on major issues within the basin. It has the mandate to resolve conflicts among the regional states but not between Ministries or bureaus at the Federal and Regional levels or between Basin Authority and Regional administrations where likely tensions may arise.¹⁸⁵ The

¹⁸³FDRE Constitution, Article 9/1/, Article 89/5/.

¹⁸⁴Ibid, Art. 62/6/.

¹⁸⁵River Basin Councils and Authorities Proclamation No. 534/2007, Article 6/6/.

Basin Authority also has power to give advice and support to the BHC and MoWR on dispute resolution.¹⁸⁶

4.2.2. Judicial Dispute Settlement Mechanisms

Inter-State disputes are to be dealt with outside courts by the House of Federation. Under Article 62/6/ of the Constitution, the House of Federation is empowered to strive to find solutions to disputes or misunderstandings that may arise between States. The interpretation of the Constitution itself lies with the HOF.¹⁸⁷ The Basin Council empowered with resolving disputes among regional states also has no power to refer a case to any temporary or permanent tribunal or court.

Water disputes that may occur between States in this scenario have no judicial solution. Members of the House of Federation, in practice are often party affiliated political appointees without the necessary expertise to decide water management and sharing issues that will inevitably bring dissatisfaction to disputant States’.

Different from the experience from India and USA, the judiciary has no role in interstate water management and disputes that may arise in Ethiopia.

4.3. A comparative look at the level of autonomy federal units have on interstate water management in Ethiopia

The main essence of Federal system of governments is the existence of co-ordinate authorities’ independent of each other.¹⁸⁸ Federal units or States are assumed autonomous and having full-fledged power in their realm and jurisdiction. Under the USA and Indian constitutions, States are empowered to enact their own water laws. They can promulgate their own water policy and law in their territory. The Indian constitution endows state governments with authority over water and the federal government legislative authority over regulation and development of interstate rivers and river valleys.

¹⁸⁶Ibid, Article 9/8/.

¹⁸⁷FDRE Constitution, Article 83.

¹⁸⁸Singh, Note 3, pp 3.

Regional States cannot promulgate any water governing law in their dominion. The Ethiopian water resource management policy promotes the decentralization of power and the incorporation of Integrated Water Resources Management principles to be implemented.¹⁸⁹ But the subsequent water resource management proclamation follows centralized way of approach like the Constitution.¹⁹⁰

In the US, the Supreme Court has original trial jurisdiction in interstate disputes relating to water.¹⁹¹ The Supreme Court has wide role in interstate water allocation and adjudication. For instance, in the dispute between Colorado and Kansas over allocation of the flow of the Arkansas River in 1902, the Court applied the doctrine of equitable apportionment which would thereafter govern interstate water allocation suits.¹⁹² The Supreme Court also has power over interpretation of state compacts as they are seen as federal law because of Congressional approval.¹⁹³

In India, the Constitution gives the Supreme Court, the highest judicial organ, the power to entertain interstate disputes. It includes interstate water disputes. In so many cases the Court entertained such interstate water disputes. In the Indus Basin case, on November 2016, the Supreme Court of India ruled that the state of Punjab is required to share Ravi-Beas river waters with Haryana and other States.¹⁹⁴ This demonstrates the value of a tribunal with jurisdiction to settle water disputes.¹⁹⁵

In the United States, there are currently about 196 interstate Compacts in force.¹⁹⁶ States can negotiate and agree on shared waters management and allocation by themselves. The Upper Colorado River Basin Compact can be mentioned, which created an interstate administrative

¹⁸⁹Ibid.

¹⁹⁰Ibid.

¹⁹¹Jonathan Horne, 'On Not Resolving Interstate Disputes', New York University Journal of Law & Liberty, Vol. 6:95, (2011), pp 97, <https://www.law.nyu.edu/sites/default/files/ECM_PRO_069128.pdf>, accessed April 19 2020.

¹⁹²Ibid, pp 100.

¹⁹³Ibid, pp 110.

¹⁹⁴Stephen, Note 106, pp 22.

¹⁹⁵Ibid, pp 23.

¹⁹⁶Jonathan Horne, Note 191, pp 110.

agency and provides for some administrative discretion in dealing with water allocations between basin states.¹⁹⁷

Nowadays, no aspect of federalism is subjected to more scrutiny and inquiry than the intergovernmental relationships of water resources development.¹⁹⁸ “In no other arena are the complex aspects of federalism so starkly presented as in water resources.”¹⁹⁹ For this reason, federal systems strive to put in place strong institutional and legal frameworks for the handling of water disputes that may occur between federal units.

The other approach followed by the USA on interstate river basins is a basin wide planning method. The goal of managing basins as a single resource based on compacts to be agreed between States’ reflect on the view that a river basin can be managed effectively only as a unit.²⁰⁰ However, the federal state relationship was not as such conducive to bring a unified water resource planning and development.²⁰¹ A review of recent progress reveals a number of shortcomings.²⁰² Too much of the planning and programming between federal and state agencies has been unilateral, without sufficient relationship to basin-wide objectives and needs.²⁰³

According to the proclamation no. 534/2007, the necessity for establishing basin authorities comes from the intention to implement the national water policy on the basis of basin based water management and bring effective and sustainable joint management by relevant stakeholders of the water resources of the basins.²⁰⁴ This shows that to some extent the central government tries to

¹⁹⁷Ernest A. Engelbert, ‘Federalism and Water Resources Development’, Law and Contemporary Problems, pp 341, <<https://scholarship.law.duke.edu/lcp/vol22/iss3/2/&sa=U&ved=2ahUKewjYicXp-LPpAhVSKBoKHXLhCFQQFjAAegQICRAB&usg=AOvVaw0nFiWt97FCaiHBINKqB9Ho>>, accessed March 7 2020.

¹⁹⁸Ernest, Note 197, pp 325.

¹⁹⁹Ibid.

²⁰⁰Amelia I.P. Frenkel, ‘Interstate Water Rights: Take No Drop for Granted’, Harvard Environmental Law Review, Vol. 40, (2016), pp 260, <<https://harvardelr.com/wp-content/uploads/sites/12/2015/11/Frenkel-40-HELRL-253.pdf>>, accessed April 5 2020.

²⁰¹Ernest, Note 197, pp 338.

²⁰²Ibid.

²⁰³Ibid.

²⁰⁴Solomon, Note 20, pp 105.

decentralize its power.²⁰⁵ But when we look at the composition and management of the basin authorities the decentralization of water management powers is still long ahead.

The Basin Authorities are not expanding to start with. Since, from the ‘to be established’ twelve basin authorities, only three are established until this time. That means, the federal government after centrally accumulating interstate water management and after passing a water policy that looks at a river basin as one resource and having a basin based approach, does not still reach at least half of the planned basins. This will make the resources idle and will encourage misuse of scarce resources of the country. After making the regional States powerless on management of interstate waters, the federal government is not meeting the needs of the country and regions.

Ethiopia’s federal system recognizes the importance of decentralized management by regional states in the political, economic and social affairs of the country.²⁰⁶ Moreover, the federal government cannot effectively discharge some of its responsibilities unless it adopts a decentralized and participatory approach to their management.²⁰⁷ This calls for the regional states to have an adequate role and participation in decision-making regarding the management of water resources within their respective regions.²⁰⁸ Basin Authorities are not obliged expressly by law to involve regional states in their High Councils and administration.

4.4. Lessons to be Learned and the Challenges Ahead for Ethiopia

Water stress in Ethiopia is generally intensifying as climate projections have suggested.²⁰⁹ This lack of water and water stress will certainly bring conflict of interests in water allocation between water users, from farming to hydropower and irrigation.²¹⁰ This will make water access more challenging for human needs particularly for poor and vulnerable communities and those

²⁰⁵Ibid.

²⁰⁶Ernest, Note 197, pp 32.

²⁰⁷Ibid.

²⁰⁸Ibid.

²⁰⁹Meron Teferi Taye and Ellen Dyer, ‘Ethiopia's future is tied to water - a vital yet threatened resource in a changing climate’, (22 August 2019), retrieved at <<https://theconversation.com/ethiopias-future-is-tied-to-water-a-vital-yet-threatened-resource-in-a-changing-climate-121844>> accessed March 23 2020.

²¹⁰Ibid.

territories downstream.²¹¹ As principles of integrated water management illustrate, efficient management of water resources is achieved through subsidiarity, with solving of problems in the lowest possible level of government.²¹² The other is solidarity, where all stakeholders dealing with water management should undertake their duties in a mutual and cooperative manner.²¹³

It will be necessary for the federal government to clearly define the degree to which decentralization of federal powers over water management is to be devolved to the Regional States and to water resources management bodies such as the river basin authorities to ensure effective management of the country's water resources and the powers the federal government will delegate to the states has to be defined in laws.²¹⁴

Decentralization is also advantageous in a sense that, regional differences in political and institutional development in the sector and agro-ecological characteristics suggest that 'one size fits all' schemes for water sector capacity building are inappropriate.²¹⁵

Besides the effectiveness of decentralized water management, federal units always call for more autonomy. Especially, ethnic/linguistic federal units like Ethiopia's, are growing interest in more autonomy and self-administration. Federal governments' main feature is the balancing of self-rule and shared rule. So, decentralization has to be backed with strong and all-inclusive institutions that will manage interstate disagreements on water allocation and sharing.

Management of shared resources especially water, challenges all federal systems. India and USA approached the problem primarily by giving States' power to administer and allocate shared waters by themselves. In addition, institutions were specifically assigned to manage fallouts that

²¹¹Ibid.

²¹²'Principles of Integrated Water Resources Management in Municipalities and their River Basins', Expert Document of Slovak Association of Towns and Villages (ZMOS), (May 2008), pp 2, <http://www.waterparadigm.org/download/Principles_IWRM_Municipalities_River_Basins.pdf>, accessed November 13, 2019.

²¹³Ibid.

²¹⁴Ernest, Note 197, pp 32.

²¹⁵Yacob, Note 45, pp 29.

may occur between States concerning interstate waters. Meanwhile in Ethiopia, the institutional framework for such disputes is not well established yet.

Ethiopia could learn from the experiences of other federal systems that decentralization of water management is not a choice to make but a necessity to prevent disputes. Not only should water management be decentralized, there should also be a full-fledged dispute resolution framework set to resolve any conflict of interest.

The Nigerian experience on decentralization of interstate water resources management which bases its basin management following political boundaries rather than hydrological one should not be followed by Ethiopia.

Decentralization through Basin Authorities is also a contemporary trend that should be followed into. The need to nurture decentralization and participation that involves water users in water management is necessary under international principles and law.²¹⁶ What Nigeria did in such organizations was to make basin authorities match with the political boundary of States'. But this will create vagueness and more conflict rather than integrating water management. Ethiopia currently is following hydrological line to demarcate Basin Authorities which is better. The composition of the Basin Council and the administration in Ethiopia should reflect the interest and stake of Regional States in the basin. Basin Authorities should transfer all decision making power in such basins to the concerned Regional States. The mere formation of Basin Organizations could not resolve the problems and count as decentralization if the real powers cannot be transferred to the bodies. Other than this, basin authorities will be extension of the federal centralized administration and will not be problem solving.

²¹⁶ 'Dublin Statement on Water and Sustainable Development, International Conference on Water and the Environment', Dublin, 31 January 1992, as cited on; Philippe Cullet, 'Water Law in India; Overview of Existing Framework and Proposed Reforms', IELRC Working Paper, 2007, pp 7, <<http://www.ielrc.org/content/w0701.pdf>> accessed on June 26 2020.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Ethiopia under the 1995 Constitution has a Federal Republic decentralized system of government. It has autonomous Regional States independent of each other. As all federal systems of government, one of the challenges facing Ethiopia is management of shared resources such as water between States. The Constitution, gives the power of determination and regulation of the use, allocation and protection of the interstate water resources of the country to the federal government. Such amassing of water power by the federal government and the diminished role of regions need proper investigation and analysis. When we look at the experience of other federal governments they follow a different approach in the handling of interstate waters. Federal governments take different approaches in resource sharing between their federal units. What makes all the approaches similar is the autonomous and self-administering nature of the administrative units and the challenge on the central government to balance the conflict of interest.

When we look at the institutions governing interstate waters, there are no well-developed institutions established to resolve water disputes. The central organ administering inter-state water is the Ministry of Water Resources. Regional States can only get water allocation and administration powers through delegation by the federal government. The Basin High Council of Basin Authorities is mandated to resolve conflicts among the regional states and the Basin Authority also has power to give advice and technical support to the BHC and the Ministry on dispute resolution in relation to allocation.

Comparatively, Ethiopia as a federal government doesn't have water management institutions that reflect the interest of federal units or States'. In the USA, a State having issues over a shared river can negotiate with a neighboring State and enter into a compact. If agreement cannot be reached, the disputants could take their case to the Supreme Court. In India, the Interstate Water Disputes Act provides that when disagreements arise between States concerning interstate waters, the federal government will try to mediate and if it fails, independent tribunals will be constituted to entertain the dispute.

The Ethiopian Inter-State Water Management framework excludes courts from adjudicating on water sharing and disputes. Ethiopia should learn from the experiences of other federal systems that decentralization of water management is not a choice to make but a necessity to prevent disputes. Not only should water management be decentralized, there should also be a full-fledged dispute resolution framework set against any conflict of interest. Ethiopia should also establish permanent or ad-hoc tribunal that will entertain interstate water dispute.

5.2. Recommendations

The thesis focuses on comparatively looking at the Ethiopian interstate water management system. The study focused on the legal and institutional framework for water management. In addition to that it tried to analyze the dispute resolution mechanisms for interstate water sharing disagreements and institutions set to do so.

Based on my analysis and research I recommend the following:

- There should be a decentralized approach towards interstate water management.
- The main decision makers on interstate rivers should be the States sharing the water body. Decentralization is a better tool to involve all stakeholders in interstate water management and to enable all federal units have decision making power.
- River Basin Organizations should be used to decentralize the interstate water management power of the federal government. The appointment of Basin High Council members should not only fall in the hands of the federal government. The composition also should be inclusive of Regional States in the basin. The composition of the BHC and the involvement of the States should also be guaranteed by law.
- The Federal government should guarantee establishment of well-established conflict resolution framework that will handle any fallouts in interstate water management between States and between institutions.
- The Basin High Council and Basin Authority should be fully functional and well equipped with ability to adjudicate disagreements on water sharing and allocation efficiently.



Bibliography

Laws

- Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No.1/1995
- The Ethiopian Water Resources Management Proclamation, Proclamation No.197/2000
- River Basin Councils and Authorities Proclamation, Proclamation No. 534/2007,
- Ethiopian Water Resources Management Regulation, Regulation No. 115/2005
- Definition of Powers and Duties of the Executive Organs Proclamation No. 1097/2018
- Abay Basin High Council and Authority Establishment, Regulation No. 151/2008,
- The Constitution of India,
- The Interstate (River) Water Disputes Act of 1956 (IRWDA 1956); India,
- The River Boards Act 1956 (RBA 1956); India
- River Basins Development Authorities (RBDA) Act, cap 396 Laws of the Federation of Nigeria, 1990,
- The Water Resources Act of Nigeria, 1993, Nigeria,

Policy Documents

- Ethiopian Water Sector Strategy, The Federal Democratic Republic of Ethiopia Ministry of Water Resources, 2001
- Ethiopian Water Resources Management Policy, The Federal Democratic Republic of Ethiopia Ministry of Water Resources,
- Awash Basin Authority, ‘Awash Basin Water Allocation Strategic Plan’, (June 2017),
- National Water Policy, Federal Republic of Nigeria, July 2004

Books & Articles

- Stefano Burchi, ‘Water Resource Agreements Among States and Provinces of Federal Countries – A Comparative Review’, Forum of Federations, Development Law Service, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy,
- Taniya Malik, ‘Inter-State River Water Disputes: A study in the light of the federal principle in India’, International Journal of Humanities and Social Science Invention ISSN (Online): www.ijhssi.org, Volume 4, Issue 10, (October 2015),

- I J Goldface Irokalibe, ‘Water Management in Federal and Federal–Type Countries: Nigerian Perspectives’, Ahmadu Bello University, Zaria, Nigeria,
- Girma Taddese and others, ‘The Water of the Awash River Basin, A Future Challenge to Ethiopia’, (2004),
- Imeru Tamrat, ‘Policy and Legal Framework for Water Resources Management in Ethiopia’, Forum of Federations, International Conference on Water Management in Federal and Federal-Type Countries,
- Betsy A. Cody and others, ‘Selected Federal Water Activities: Agencies, Authorities, and Congressional Committees’, Congressional Research Service, (May 24 2017),
- Berhanu Hailu Woldemariam, ‘Water Resource Management in Ethiopia: The Case of Addis Ababa’, (MSc Thesis, Discipline of Geography, School of Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, 2009),
- Jason Gehrig and Mark M. Rogers, ‘Water and Conflict, Incorporating Peace building into Water Development’, Catholic Relief Services, United States Conference of Catholic Bishops, (2009),
- Yacob Arsano and others, ‘Governance and Drivers of Change in Ethiopia’s Water Supply Sector’, A study conducted by the Organisation for Social Science Research in Eastern and Southern Africa (OSSREA) in collaboration with the Overseas Development Institute (ODI), (May 2010),
- ‘IWRM Implementation Project in Ethiopia’, Global Water Partnership Eastern Africa, Ethiopia Country Water Partnership, Final Project Report, Project supported by the United States Department of State [USDoS], (May 2009),
- ‘Integrated Water Resources Management for River Basin Organizations’, International Network for Capacity Building in IWRM (Cap-Net), UNDP, Training Manual, South Africa, Pretoria, (June 2008),
- Solomon Yimenu, ‘Water Resource Management in Ethiopia: normative and institutional analysis’, (LLM Thesis, University of Gondar, School of Law, 2016),
- Alexander Carius and others, ‘Water, Conflict, and Cooperation’, The United Nations and Environmental Security, Policy Brief, ECSP Report, Issue 10, (2004),
- Girmachew Addisu, ‘Water Resources Management in Abay River Basin’, Abay Basin Authority, WRM-JTR Kick-off Meeting, Addis Ababa, (April 2018),

- Lynn A. Mandarano and others, 'Institutions for Interstate Water Resources Management', Journal of The American Water Resources Association, American Water Resources Association, Vol. 44, No. 1, [February 2008],
- 'Statutory Water Rights Law and Related California Code Sections (as amended, including Statutes 2018)', California State Water Resources Control Board, Compiled by the Office of Chief Counsel, (January 2019),
- 'Water Law and Management in Oklahoma',
<https://www.owrb.ok.gov/supply/ocwp/pdf_ocwp/WaterPlanUpdate/joint_committee/WATER%20LAW_MANAGEMENT%20IN%20OKLAHOMA.pdf>
- Thomas Sansonetti & Sylvia Quast, 'Not Just a Western Issue Anymore: Water Disputes in the Eastern United States', (An Agricultural Law Research Article, University of Arkansas, System Division of Agriculture, Cumberland Law Review, Vol. 34:2, 2003),
- Stephen C. McCaffrey, 'Lessons of Inter-State Water Dispute Settlement in the United States and Beyond', (Seminar, University of the Pacific, McGeorge School of Law, Transboundary Water Dispute Prevention and Settlement in Europe: Do We Have Effective Tools and Mechanisms at Hand? , Budapest, 2016),
- Jonathan P. Deason and others, 'Water policy in the United States: a perspective', Water Policy 3, (2001),
- Karlsson Johan, 'Scoping study of water resource management in the textile industry in Ethiopia', SIWI Paper 23, SIWI, Stockholm, (2015),
- Helen Parker, 'A thirsty future? Water strategies for Ethiopia's new development era', Overseas Development Institute (ODI) Report, (August 2016),
- 'Water and intergovernmental relations, Managing water resources in five federations', Federations, Special Section, (2009),
- Jonathan Horne, 'On Not Resolving Interstate Disputes', New York University Journal of Law & Liberty, Vol. 6:95, (2011),
- Ernest A. Engelbert, 'Federalism and Water Resources Development', Law and Contemporary Problems,
- Haris Jamil, "Interstate Water Dispute and Federalism: Governance of Interstate River Water in India", Civil and Environmental Research, School of Law, KIIT University, India, Vol 2, No.2, (2012),

- Amelia I.P. Frenkel, ‘Interstate Water Rights: Take No Drop for Granted’, Harvard Environmental Law Review, Vol. 40, (2016),
- ‘Principles of Integrated Water Resources Management in Municipalities and their River Basins’, Expert Document of Slovak Association of Towns and Villages (ZMOS), (May 2008),
- Philippe Cullet, ‘Water Law in India; Overview of Existing Framework and Proposed Reforms’, IELRC Working Paper, 2007, <<http://www.ielrc.org/content/w0701.pdf>>
- Ute Mager, ‘International Water Law; Global Developments and Regional Examples’, MiscellaneaJuridica Heidelbergensia, Edited by Juristische Fakultat and Ruprecht-Karls-Universitat Heidelberg, Germany, Heidelberg, 2015, <https://www.jura.uni-heidelberg.de/md/jura/mat/band_3_international_water_law.pdf>
- Yona Shamir, ‘Alternative Dispute Resolution Approaches And Their Application In Water Management: A Focus On Negotiation, Mediation And Consensus Building’, UNESCO-IHP, <<http://unesdoc.unesco.org/images/0013/001332/133287e.pdf>>
- ‘Water Sector Governance in Africa’, Water Partnership Program (WPP) of the African Development Bank, Volume 1, Theory and Practice, <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Vol_1_WATER_SECTOR_GOVERNANCE.pdf>

Websites

- Meron Teferi Taye and Ellen Dyer, ‘Ethiopia's future is tied to water - a vital yet threatened resource in a changing climate’, (22 August 2019), retrieved at <<https://theconversation.com/ethiopias-future-is-tied-to-water-a-vital-yet-threatened-resource-in-a-changing-climate-121844>>
- ‘Basin Development High Council Approves National Water Use Tariff Draft Regulation’, Ethiopian News Agency, Addis Ababa, (April 11, 2019), retrieved at <<https://www.ena.et/en/?p=7303>>

