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ARTICLE



## Institutions and water governance in the Okavango Delta, Botswana

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### ABSTRACT

The goals of Integrated Water Resources Management (IWRM) can be achieved by embracing the principles of distributive governance, which places both customary and statutory water institutions on the same pedestal in the governance of water resources. As culture and traditions constitute intangible aspects of water resources management in rural Africa, the recognition of water governance systems grounded in local norms, which correspond better with the aspirations of local water users as against the expert-knowledge systems is desirable. Following the introduction of the statutory institutions in postcolonial Africa, customary institutions, which were once effective in regulating water resources became relegated to the background in those countries, including Botswana. Adopting a critical literature review approach, this article employs the concept of legal pluralism to analyze the institutional factors that create the disharmony between cultural and statutory water governance and management institutions. Findings indicate that water has been abstracted from its social nature and transformed into a tradable economic good. Ultimately, the local meanings and images encoded in water as a nature-given resource are overlooked, thus generating conflicts in water governance. The paper recommends the adoptions of legal pluralism under which water institutions need to embrace both customary and statutory institutions.

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institutions; legal pluralism;  
Okavango Delta; statutory

## 1. Introduction

Since prehistoric times, indigenous people have governed resources in their localities (Osei-Tutu et al. 2015) and established social institutions as mechanisms to regulate water use (Kapfudzaruwa and Sowman 2009). The colonialists created colonial states and their associated statutory institutions (Gachenga 2012), which led to the centralization of water resources governance. Subsequently, water management became the responsibility of state institutions and the motive was purportedly meant to enhance better water governance even though the motive was apparently to secure revenues for the states (Osei-Tutu et al. 2015). Local people and their customary institutions were subsequently relegated to the background and in some cases criminalized (see Brown and Lassoie 2010), resulting in local resistance against this form of water governance. In the late 1980s, governance strategies that sought to involve local people in officially recognized water governance emerged with the rationale to enhance effectiveness, efficiency and equity in water use (Mohanty 2004; Kapfudzaruwa and Sowman 2009; Brown and Lassoie 2010). However, the results of implementation efforts have been unsatisfactory (Kapfudzaruwa and Sowman 2009), largely because

they had introduced expert knowledge systems of water governance in local communities (Ostrom et al. 1994) where the technical, managerial and financial requirements of the expert-knowledge systems were incompatible with local circumstances, resulting in lack of local ownership and strong dependency on external support to function (Pokorny and Johnson 2008). Consequently, several authors have recommended customary institutions for the purpose of recognizing local water governance (see, for instance, Ostrom et al. 1994; Agrawal and Ostrom 2001). Indeed, in some empirical studies local institutions were found to be effective and efficient in regulating use of local resources (Colding and Folke 2001).

In many countries, local customs and religious beliefs have shaped the rules applied to water. Such local rules have been traced back to the traditional life of the indigenes. For instance, local water rules in India were developed and incorporated into the statutory water laws (Naff 2009). This scenario is similar to water governance in China and Egypt where rules for managing floods and promoting irrigation were initially developed locally but later became part of national water law (Roth et al. 2015). While prehistoric water rules focused much on ownership and rights, water

rules in the industrial revolution era shifted to water quality issues with pollution taking the center stage and up to now, water governance continues to focus on integrated and sustainable utilization of water. The study of water governance has shown that it is not easy to change historically acquired rights and responsibility (Ostrom et al. 1994). Thus, traditional courts, taboos and traditions continues to preside over water management in rural areas in Africa.

Although water institutions are contextually shaped, literature has shown that African water institutions have six general features (Mehari et al. 2006; Muyambo and Maposa 2014; Osei-Tutu et al. 2015). Firstly, the institutions have a cultural origin as influenced by the geographical and hydrological conditions that shaped the growth of the early civilization along riverbanks. In general, regions that were water rich had little need to develop rules, while regions with water paucity were compelled to have local water rules. This tendency is still evident in different parts of Africa (see, Mehari et al. 2006).

The second general feature of water rules is the influence of religion. Through the spread of major religions (like Christianity and Buddhism among others) to different parts of the world, water related rules in each religion began to penetrate statutory water legal systems. Resulting from this religious influence is the lack of recognition accorded private ownership of water in some places because water is regarded as a fugitive social good. As noted by Dellapenna and Gupta (2008), this perspective of water elusiveness emanated from the African Traditional Religion (ATR) and borrowed by Hinduism and spread to Christianity. Among some sects of the major religions, water cannot be commercialized because it is a gift from God even though limited ownership is recognized where individuals have taken specific measures to create access to water, either through the digging of wells or provision of treatment plants. In Islam rules concerning water bear a religious characteristic because Islam arose in an arid region. In Islam, the equivalent word for law is sharia meaning *path to the watering place* (Naff 2009). Nonetheless, the Roman laws which were developed in a relatively water rich areas allow personal ownership of water. Consequent upon this, countries which ascribe to Roman tradition of water governance recognize three types of water ownership namely private, commercial and public. Thirdly, water institutions in Africa have characteristics that are associated with war conquest and colonization. For instance, countries that were conquered by Islamic Jihadists operate under water institutions governed by the tenets of Islam. Also, water institutions in colonized countries operate under Western secular rules. Yet, in other instances, water institutions promote those ideologies that strengthen state ownership of water. This is the

case in Botswana and indeed in all African countries. A fourth feature is the codification of water institutions at the national level. This stage involved the identification of common principles of managing water at both local and national level. This was followed by recording of water laws at both national and international level. The international law Commission was mandated to codify international water law (Woodman 1999). While key features of local rules were codified in international water law, however, this focuses much on transboundary water courses. The fifth feature of statutory water institutions emerged from the epistemic community. Experts with vast knowledge of water science developed scientific concepts of water management. They came up with the notion of diverting water from water-abundant areas to those experiencing water scarcity. While initially these communities focused on developing infrastructure and engineering works like dams, over time their work has shifted toward integrated river basin management. However, some crucial local level water rules have been lost within the context of integrated basin management. The sixth, emerging feature in water governance is globalization, which is not unconnected with the spread of neoliberal ideologies regarding water management and use. In the context of globalization, water is regarded as an economic good as against the notion of customary institutions that considers it as a social good.

With the aim of analyzing institutional factors that create the disharmony between customary and statutory water governance and management institutions, the paper begins by providing the conceptual framework underpinning institutions and water governance (Section 2). While Section 3 highlights the methodological approach of the paper, Section 4 describes the study area. Sections 5 and 6 address the distinction between water governance and management as well as water institutional structure and reforms in the Okavango Delta. While Section 7 analysis customary institutions in water governance in the study area (Okavango Delta), section 8 addresses the issue of water as a social or economic good from a customary and statutory institutions point of view respectively. The last section (Section 9) concludes the paper and makes recommendations for an effective and inclusive water governance and management program in the Okavango Delta in particular and rural areas in Botswana in general.

## 2. Conceptual framework

This paper is premised on the legal pluralism conceptual framework conceived by Barry Hooker (1975) and Vanderlinden (1989). In their expositions, the status quo where statutory laws are regarded as the only governance institutions is an erroneous assumption which assumes

state laws to be uniform for all persons exclusive of all other edict and administered by a single set of state institutions (Hooker 1975; Akong'a 1988; Vanderlinden 1989; Roth et al. 2015). However, literature has shown that there are within any given society different juridical mechanisms that could be applied within similar contexts (Vanderlinden 1989). Thus, legal pluralism exists whenever social actors identify more than one source of law within a social arena. In this instance, the essential feature of legal pluralism in Africa is the co-existence and usage of statutory and customary institutions in the governance of natural resources (Woodman 1999). Understanding the concept of legal pluralism helps in resolving the dissonance existing between customary and statutory water governance institutions in the Okavango Delta in Botswana (see Gondo et al. 2018). As viewed by Muyambo and Maposa (2014), water allocation, especially in rural Africa, depends much on local rather than statutory institutions. This is because local institutions are a product of local history and circumstances, and they chart the routes for feasible reforms in water allocation. Rather than discarding them, application of water reforms that build on and enhance the social capital of local institutions are likely to be more effective and have lower transaction costs (Guillet 1998). Country-level efforts to change how water is allocated are likely to be ineffective or counterproductive unless grounded in an understanding of the principles and practices that guide its allocation at local level (Maganga 2003). Conversely, local communities face increasing challenges in comprehending and dealing with competing water uses and users beyond the boundaries of local management institutions (Maganga 2003; Gachenga 2012). To mitigate the water access and allocation predicaments faced by indigenes within the Okavango Delta, the adoption of legal pluralism is imperative as it recognizes that multiple legal frameworks coexist. Legal pluralism is not a matter of simply applying a single, well defined and accepted set of formal rights derived from national institutions, but instead requires recognition of the customary institutions among stakeholders. Water rights can be broadly defined as claims to water resources that are recognized as legitimate (Merry 1988). At the local level and within the customary institutions, water rights often defined and applied in ways that differ significantly from those that may be recognized in statutory institutions already exist in one form or another.

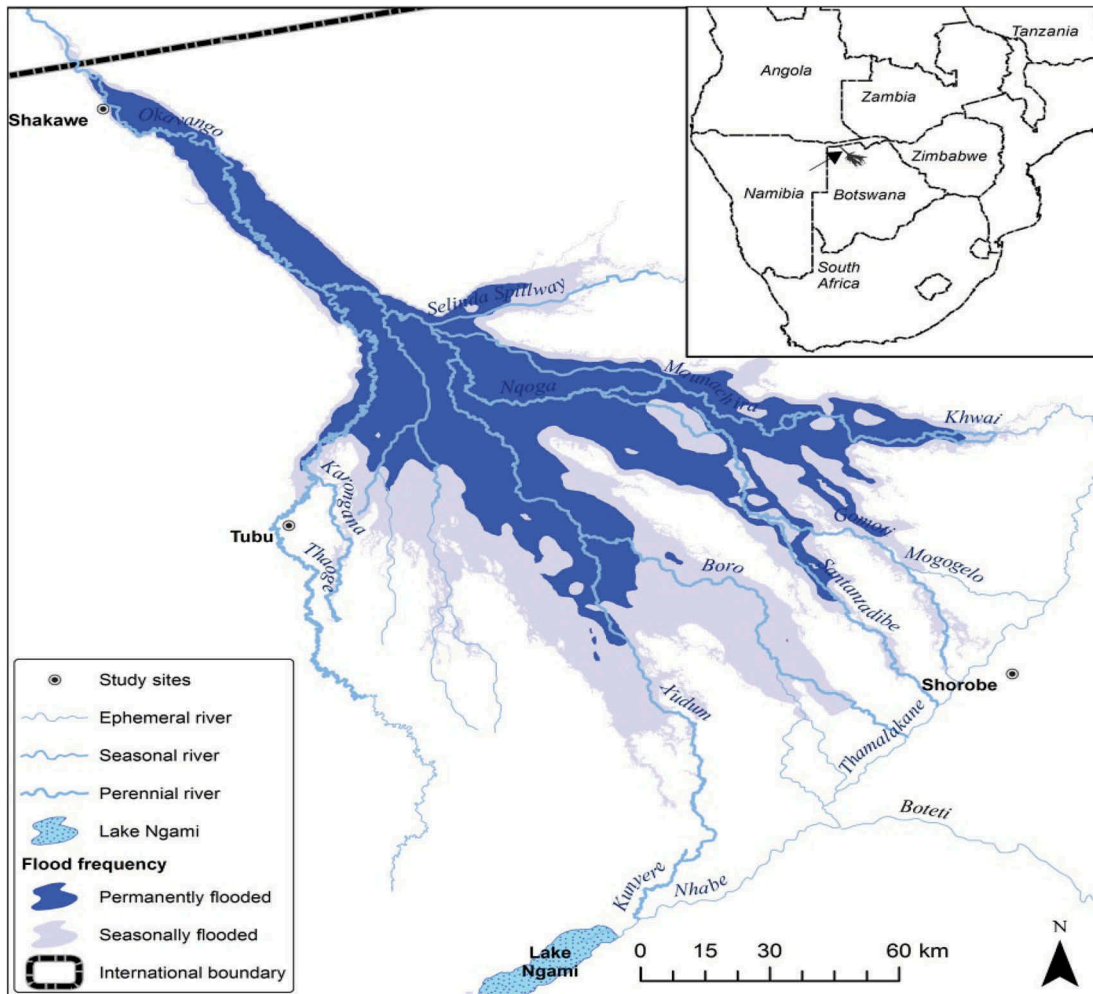
### 3. Methodology

This paper analyses institutions responsible for water governance and management in the Okavango Delta. A critical review of relevant literature is used to examine water governance institutions in the study area. In order

to provide an in-depth scrutiny and insights into water governance and management institutions in Botswana, a narrative approach is used by engaging in literature and document analysis. Document analysis is a systematic technique for studying or evaluating both electronic and printed documents (Bowen 2009). In this study, data was explored and examined using various themes related to institutions for water governance and management in the Okavango Delta (Gondo et al. 2018). Assigning meaning and providing a broader understanding of the customary and statutory water governance institutions are crucial tasks in the analysis of this paper. The electronic database search was done systematically through the use of focused keyword search. Reviewing or searching the literature in a systematic manner refers to the identification, evaluation, and interpretation of available research relevant to a particular research question, or topic of interest (Kitchenham 2004; Kitchenham et al. 2009). The selected keywords include: water governance, water management; institutions, customary rules; statutory water institutions; cultural water management practices; water resources governance, legal pluralism, amongst others. The retrieved literature included water Act (1968), Water Bill (2005), Water Policy (2012) documents for the Republic of Botswana, reports, books, journal articles, etc. Customary and statutory water governance institutions in Botswana were thus investigated through the selection of appropriate subjects in which the two water governance institutions can assist the adoption of legal pluralism in the governance of water in the Okavango Delta and Botswana in general. The analytical framework of the study is rooted in the legal pluralism conceptual framework, which is employed to highlight in the need to adopt and appreciate customary and statutory water governance institutions in the governance and management of water in the Okavango Delta in Botswana. This was achieved by the use of and/or employing the backward snowballing approach of literature identification through which relevant peer-reviewed articles in leading journals were identified and analyzed.

### 4. The Okavango Delta

The Okavango Delta (Figure 1) is a large flood-pulsed alluvial wetland (Mendelsohn et al. 2010), characterized by very low level of anthropogenic transformation in the semi-arid north-western Botswana (Gondwe and Masamba 2014). It is located within 18°–20° East of the Greenwich Meridian and 22°–24° South of the Equator (Gondwe and Masamba 2014). It covers an area of 22,000 km<sup>2</sup> and is one of the world's largest inland deltas (Mendelsohn et al. 2010). The delta receives water from central Angola via Cuito and Cubango rivers and consists



**Figure 1.** Map of the Okavango Delta showing the sampled sites.  
Source: Okavango Research Institute GIS Laboratory

of five ethnic groups, each with its own ethnic identity and language (Mbaiwa and Stronza 2010). They are HamBukushu, BaTawana, BaYeyi, BaKalanga, and BaKgalagadi. HamBukushu, BaTawana, and BaYeyi traditionally engage in mixed economies of subsistence agriculture, hunting and collection of wild fruits (Bock and Johnson 2004). BaKalanga and BaKgalagadi engage in fishing, hunting and the collection of wild fruits. BaKgalagadi people utilize both forest and mineral resources.

## 5. Division into water governance and management

The distinction between governance and management is highly blurred and disputed subject in various scientific fields (Mutekwa and Gambiza 2016) owing to their numerous definitions and water governance and management is not an exception. However, the meaning of governance apparently depends on a particular research

field, context of application, level of analysis of decision making and the views and roles of governance actors. In the context of water, governance can be understood as a set of procedures, institutions (both customary and statutory) and actors that determine how decisions are made and implemented in water distribution and use (Secco et al. 2011). It is essentially about who has the influence, who decides and how the decision makers are held accountable for water availability, access, quality and shortages (Graham et al. 2003). In this version, water governance is concerned of investigating the role and impact of water acts, policies and management strategies in the context of water access, delivery and use within the communities. It is an all-encompassing concept in which decision-making and implementation processes correspond to actors and their networks which facilitate the formulation and implementation of water legislations (Pahl-Wostl 2009). Water management on the other hand is concerned of activities of analyzing, monitoring, developing and implementing of measures to keep the

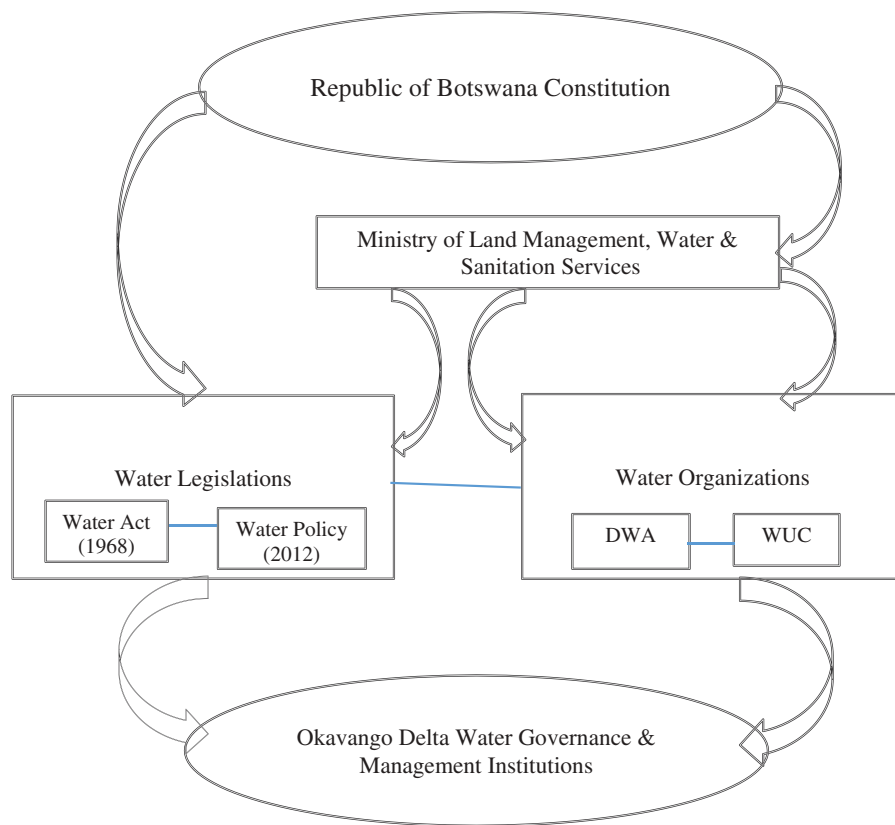
state of water within desirable bounds (Pahl-Wostl 2009). While water governance focus on the roles of both customary and statutory institutions at either local or national level in the regulation, policy making and implementation, management is concerned about the activities of planning, developing, distributing and managing the optimum use of water resources at the same categories and levels. Ideally, water resource management planning refers to all the competing demands for water and seeks to allocate water on an equitable basis to satisfy all uses and demands within the society. Governance of water as a new form of decision-making refers to the use of customary and statutory institutions in decision making and implementation. Traditionally water management has been perceived as a primarily technical issue, belonging to the field of engineers and hydrologists (Pahl-Wostl 2009). However, it is increasingly acknowledged that an adequate management of water requires that a broader stakeholder base and juridical context be taken into accounts. In both academia and policy circles, the attention has been shifted from an entirely water management toward water management with governance, thus requiring the combined and coordinated effort of both technical (engineers, hydrologists) and nontechnical experts (lawyers, economists, politicians) in the field of water. In this sense, the definition of water governance, which seems appropriate to embrace all stakeholders in water is that by Rogers and Hall (2003) which regards governance of water as “the political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services at different level of society”.

## 6. Water institutional structure and reforms in Botswana

North (1990) conceptualizes institutions as *rules of the game* that direct the governance of common pool resources to avoid tragedy of the commons. Institutions in water governance are designed to influence human behavior by either restraining or enabling human choice (Mogomotsi et al. 2018). Institutions in this context can be viewed as established and prevalent social rules that structure social interactions as well as organizations, which govern water use. They constitute humanly devised constraints that structure political, economic and social interactions (North 1990). Based on North's (1990) definition, an institution is a framework of laws and organizations within which an individual acts. Thus, institutions in this case refer to any structure or mechanism governing the behavior of a set of individuals within the Okavango Delta in terms of water use, management and conservation.

Thus, the Ministry of Land Management, Water and Sanitation Services (MLMWSS), Department of Water Affairs (DWA) and Water Utilities Corporation (WUC) are governmental organizations, which either govern or manage water issues in Botswana. In general, water legislations, policy and water organizations constitute what are called statutory water governance institutions in the Okavango Delta (see Figure 2). The reliance on groundwater and the limited spatial distribution of surface waters creates a complex institutional framework for water governance, management and development in Botswana (Republic of Botswana 2012). This is further compounded by the reliance on internationally shared and transboundary waters. In order to safeguard national interests and sovereignty, the government of Botswana has emphasized the need to constantly compile and analyze a comprehensive institutional framework for water governance in Botswana and the Okavango Delta in particular. This creates an opportunity for considering a legal pluralism approach in water governance in the Okavango Delta and Botswana in general through embracing both customary and statutory water governance institutions. As the definition of institution encompasses both legislations and organizations in water governance and management, expatiating on these institutions will begin by looking at them (the institutions) in the form of organizations and followed by highlighting institutions as legislations and policies (Figure 2).

As shown in Figure 2, the MLMWSS provides leadership and policy directive (Republic of Botswana 2012) to the DWA (a government entity) and WUC, a parastatal. The key role of the ministry is to formulate, direct and coordinate national water law and policy. It is also within its mandate to formulate water management strategies. However, the ministry delegates this responsibility to the DWA. The department develops water policy, monitors and allocates water to users. Furthermore, DWA provides technical expertise to the ministry on legislations and liaise with riparian water users at both national and transboundary level. Following DWA is the WUC, established under the Water Utilities Corporation Act of 1970 (Republic of Botswana 2005). Initially WUC was responsible for the supply and distribution of water within the Shashe Development Area. However, its mandate was eventually extended, making it to assume responsibility as the water authority for cities and villages within the entire Botswana. WUC, which is governed by WUC Act (1970), specifies financial principles and methods of charging water to ensure that the organization runs on the basis of commercial principles and ensure the recouping of cost (Republic of Botswana 2013).



**Figure 2.** Water governance legislations and organizations in the Okavango Delta.

Source: Developed by the authors

As water institutions are defined as rules of the game in water governance, Botswana's water institutions comprise Water Act (1968), Water Bill (2005) and Water Policy (2012). These three are all entrenched in the constitution of Botswana. The 2012 Water Policy aims to provide a framework that fosters consumers' access to water of high quality and advocates for the development of sustainable water resources in Botswana. The policy is premised on the core principles of sustainable development, which takes into consideration the objectives of IWRM. While technically the Water policy (2012) adopts a decentralized catchment area approach and uses the precautionary principle, the transboundary nature of the rivers in Botswana makes the approach difficult to apply. The overarching guiding principles as enshrined in the Water policy (2012) are the *3Es* namely *equity*, *efficiency* and *environmental sustainability*.

Noteworthy is the fact that water resources management in Botswana has, for five decades after independence, been governed by the 1968 Water Act (Chapter 34.01). While there is a political will in reforming the legislations as shown by the 2005 Water Bill, it is important to note that the reform process is taking too long as the 2005 water Bill is yet to be promulgated 13 years prior to the changes. The first step toward

reviewing this legislation was the setting up of the interministerial committee by the government to review water resources legislation. The committee was headed by the Ministry of Mineral, Energy and Water Resources (MMEWR) and it recommended the need for a new water act (Republic of Botswana 2013). This brought to the fore the 2005 Water Bill and the 2012 Water Policy. The proposed water Act (Water Bill 2005) is based on economic efficiency, environmental sustainability and equity of water use. The main features of the new water Bill (2005) and Water Policy (2012) are highlighted below.

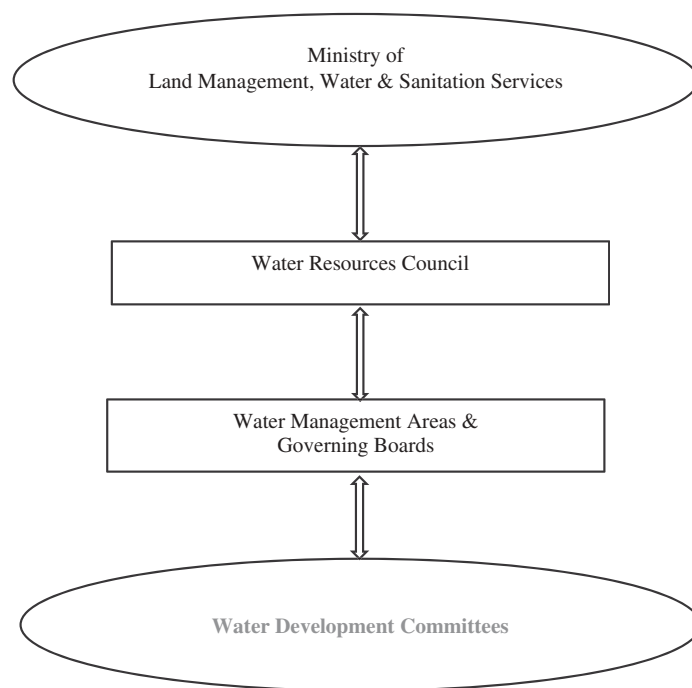
The Water Bill (2005) proposes that water should not be privately owned as the case in the current act and water is to be completely viewed from the hydrology perspective. Both ground and surface water would need to be treated as part of one hydrological component. This is a departure from the prevailing Water Act (1968), which views the two water components as separate. Stakeholder driven institutions that have more say on water allocation and general water management on a day-to-day basis are supposed to be formed. A very important institution in this case is the Village Water Development Committee (VWDC). This is a crucial institutions within the context of the Okavango Delta. The formation of VWDC implies

the use of local rules (taboos) in water governance in rural Okavango Delta. The other key feature of the bill is that there is also the need to consider the environment as a legitimate water user. There is more control over pollution with the polluter pays principle taking a center stage. The bill proposes the abolition of common law riparian rights, which attaches water rights to the land owner. Based on the 2005 Water Bill, “No owner or occupier of any land, by reason thereof, have any right that is enforceable against the government or any other person... other than a right conferred by or acquired in terms of this Act”. This buttresses the point that the government owns all surface and underground water. Thus, any use of water other than those meant for domestic purposes would need government approval. This implies that water management is not tied to land, hence, the transfer of responsibility from the MMEWR to MLMWSS. Although water is perceived as an economic commodity in which those who use it have to pay, it also recognizes the fact that water is a social good. In this regard, the bill makes exemption for the first 30–50 L water consumed per month by residents, making the monthly consumption within this threshold to be free (Republic of Botswana 2005). Although the water sector reforms are taking too long to consummate, the reforms are ostensibly likely to bring equity in water governance. The aim of the Water Bill (2005) is to involve all stakeholders in water governance and management. This seems a laudable idea as it proposes to incorporate all grassroots stakeholders.

Figure 3 shows the organogram of the new water management institutions in Botswana. One key feature of the new water governance institutions is the introduction of Village Development Committee (VDC) and the creation of water management areas. It is, however, an uphill task to divide Botswana into catchment areas because most of its water resources are transboundary in nature (e.g. Chobe in the Northern Botswana). Thus, the creation of catchment areas necessitates the loss of her sovereign rights especially to Transboundary Rivers.

## 7. Customary institutions and water governance

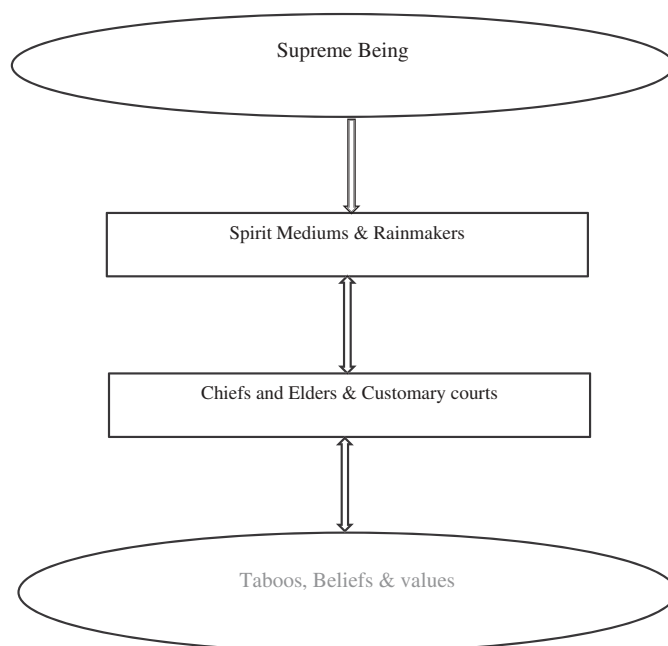
African people have their cultural practices that serve to regulate their lives and issues on water conservation. To achieve this management system, there is a social hierarchy that controls communities even though African governments appear to not recognize such structures (see Figure 4). As depicted in the organogram, the Supreme Being ranks the highest in water issues. Spirit mediums and rainmakers are at the second tier of the ladder. The chiefs and elders occupy the third level. It is through this societal hierarchy that water issues are governed in honor of the ancestors (Dodo 2013). Among African people, the spirit medium institutions have seriously suffered a setback from statutory institutions whose principles define the African spirit world as satanic (Dodo 2013; Ngcobo and Obono 2013). Consequently, by



**Figure 3.** The proposed statutory water governance institutions in Botswana.

Source: Developed by authors





**Figure 4.** Customary water governance institutions in the Okavango Delta.

Source: Developed by the authors

virtue of their membership and allegiance to statutory institutions, most of people are shunning the practice despite having served the indigenous people well for thousands of years (Dodo 2018).

Long before colonialism and globalization, various communities that currently constitute modern Botswana society had evolved various institutions, which governed the use of water. The emergence of the modern state and globalization has resulted in the supplementation of the customary uses of water principally for domestic use, watering animals, farming (e.g. molapo) and cultural rituals for other uses particularly in the tourism industry. Climatic and ecological changes coupled with population increase have sharply reduced this availability of this vital resource. Faced with the phenomenon of dwindling water resources in the Okavango Delta, the government has, through the instrumentality of legislative measures, intervened to regulate the water sector. As earlier indicated, this has given birth to the MLMWSS, DWA, WUC, Water Act (1968), Water Bill (2012), Water Policy (2012) and the 2013 Water Management strategies and Plans. As such, customary institutions were downplayed in line with changing socio-economic and political dictates of Botswana.

However, it must be pointed out that customary institutions have been used and indeed were effective in monitoring water quality even before the onset of statutory institutions. Traditionally water has been used for appeasement of ancestral spirits, curing diseases and casting out evil spirits in addition to

domestic uses. Accordingly, no customary institutions were developed to address matters of tourism and irrigation. Within the Okavango Delta communities, customary institutions had evolved rules to ensure efficient use of water resources.

Violation of these rules was an offence punishable by fines payable to the local chief or spirit mediums (Mehari et al. 2006). Apart from imposition of fines, religious and customary taboos also served as potent elements for ensuring compliance with customary rules on water usage (Colding and Folke 2001). Pronouncement of chiefs and spirit mediums as part of customary beliefs were scrupulously adhered to (Colding and Folke 2001), and disobedience of such edicts had grave consequences including death for the offender (Akong'a 1988). As documented in some parts of Ghana, Nigeria and Zimbabwe, it is forbidden to draw water in certain water pools on certain days of the week (Akong'a 1988; Maganga 2002; Segadika 2006; Kuruk 2007; Muyambo and Maposa 2014). It is also forbidden to grow crops along river banks, which are considered the resting abode of river gods and their children (Akong'a 1988). The protection of rivers and other water points is the responsibility of the entire society. They owe it a duty to the ancestors and those yet unborn to maintain river integrity.

To avert ancestral spirit punishment over the entire society, every member of the community is enjoined to refrain from acts that endanger the environment and to prevent others as well from doing so (Gachenga 2012). As the custodians of the environment and occupants of the

ancestral land, the chiefs in consultation with the spirit mediums mete out appropriate sanctions to offenders wherever and whenever appropriate (Maganga 2002; Kuruk 2007). Hence, enforceable rules enacted through customary beliefs are evolved for water conservation. Any dispute arising out of the use of water is resolved by the chiefs and elders at a local court (*Kgotla*) in line with the prevailing rules or practices and edicts handed down by the forefathers (Segadika 2006). The tribunal judgments are adhered to owing to the fear of chiefs who have powers to ostracize a person from the community (Kuruk 2007).

Owing to modernization, the potency of customary institutions as a tool for enforcing norms on water usage has significantly diminished. Christian beliefs, for instance, have overtaken customary beliefs, which were once given by the spirit mediums, chiefs and the elders; hence, sanctions that were feared in the past paled significantly (Akong'a 1988). The emergence of the modern state has further swapped the powers of chiefs with state water officials and institutions that were enacted by the post-colonial legislatures, and which substituted traditional customary edicts propounded by chiefs and spirit mediums. Generally, customary institutions as a basis for the enforcement of norms and taboos on the usage of water has paled into insignificance and indeed is honored by its observance only in the rural communities (Akong'a 1988).

## 8. Water governance and how customary institutions conceive water in the Okavango Delta

Figure 5 is an organogram of the customary water governance institutions in Botswana. At the top is the chief who is

“...an individual who has been designated as a Chief in accordance with customary rules by his ethnic group assembled in the *kgotla* (customary court) and has been recognized as a Chief by the Minister (Letsoalo 1987). There are various ranks of chiefs (*dikgosi*). The Chief who is the head of the district and based in the district capital is most senior. S/he is assisted by Deputy Chiefs. Below the Deputy Chief rank is the Senior Chief Representative, who assists the Deputy Chief in the District capital or is in charge of the tribal administration in a large village, assisted by the Chief Representatives, headmen of record, and headmen of arbitration (Republic of Botswana 2013). The government has control over the recognition, promotion and demotion of traditional leaders of all ranks even if the chiefs are selected from the royal families (Molosi-France and Dipholo 2017). The system does not reflect an indigenous style of governance, but rather a hybrid of indigenous and Western democratic system. The importance of the *kgotla* lies in the fact that it represents the point of interaction of the traditional political system and the organization of the central government and district councils (Segadika 2006). It acts as a means of offering traditional legitimacy to the introduction of new ideas, ways of doing things and regulations issued by the new elites at the central and district levels (Molosi-France and Dipholo 2017).

Viewed from an ATR perspective, water is a blessing from God that gives, sustains and purifies human life. The argument is that if poor people do not receive basic volume of water of 30–50 L a day free of charge, they have a tendency to get it straight from a nearby primary source. In Botswana, the low charges of water use in urban centers and the heavy subsidy on them are in

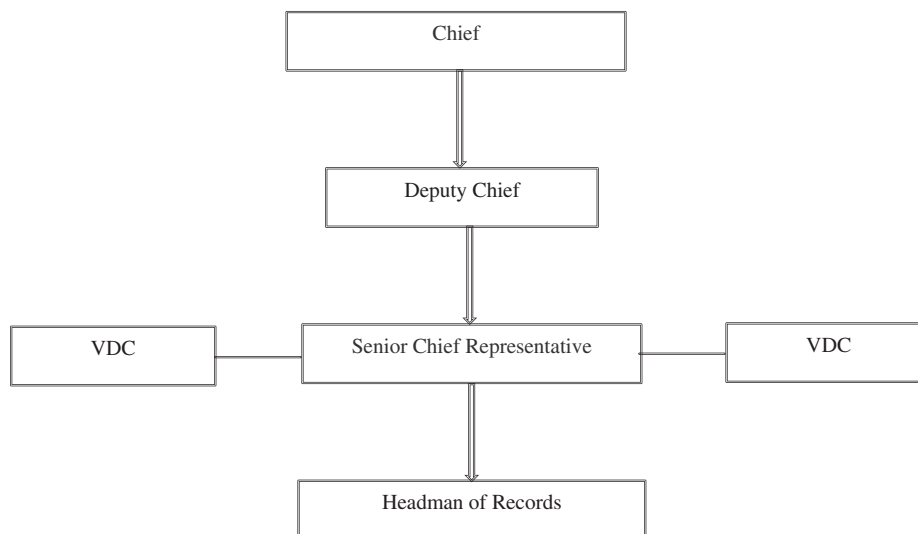


Figure 5. Customary water governance institutions in the Okavango Delta.

Source: Developed by the authors

favor of the rich who not only can afford high water price but also can afford to buy bottled water.

The key question then is *what does water as a social or economic good mean?* In an attempt to answer the question, the categorization of water sources are first made. Based on Akpabio's (2011) categorization, sources of water can be *private*, *restricted private* and *public* property. In water governance, water as a private property encompasses water in private containers (e.g. tanks), treatment plants (e.g. WUC water treatments plants), distribution systems and reservoirs (e.g. Gaborone Water Reservoirs, which is thereafter connoted as Gaborone Dam). This water source entails waterworks infrastructures, which are derived through investment in scientific knowledge. Investment in these infrastructures would mean that the owner of the investor has the right to use or sell it to recoup production costs and make economic gains. This then implies that the water in WUC treatment plants and distributary systems in the country is private water, which could be sold like any other economic goods.

Restricted private properties include dams located in private lands. For instance, Gaborone Dam is restricted private property. In this case, the owner of the land has special rights over others, but has certain obligations to them as well. Within these limits, the owner can trade water like any other goods but should still allow those who are incapacitated a free access to it. Public property water sources are water in rivers, Thamalakane, Okavango or Chobe, in this case. As water is in its natural state cannot be bought or sold, it can only become an economic good if and only if a business-oriented entity installs waterworks infrastructures to process and convey the water to people's homes.

Having classified water based on their sources, it is then possible to attempt to define the term water as a social or economic good. From an ATR perspective, to say water is a social good is tantamount to saying that water is a gift from God and necessary for sustaining life. The belief that water is a free gift from God is loaded with many meanings. The inherent belief in ATR and indeed in any other religions is that anything associated with God is presumed perfect. This notion tends to encourage usage of any water in the Okavango Delta regardless of the quality or source, Thamalakane River is no exception. Even when the quality of the source is physically very poor, people still use it for drinking and other domestic purposes. It is from this perspective that people living along Thamalakane and Okavango River and those surrounding the Okavango Delta make it a normal practice to drink water from whatever source available. Another ATR spiritual conception of water is on its quality. Water in a river like the Okavango River is freely utilized

without question or complaints, no matter how dirty it could be. It is believed that any complaint about its physical conditions would automatically attract natural punishment from the gods of the river since water is also as an embodiment of animals (Akpabio 2011). Literature has shown that punishment on any erring individual could be in the form of sudden disappearance or any other form of physical disabilities (Muyambo and Maposa 2014). On the other hand, water as an economic good is understood from Savenije (2002) and McNeill (1998) who define water as an economic good as implying that decisions on the allocation and use of water should be based on a multisectoral, multi-interest, and multi-objective analysis in a broad social context, involving social, economic, environmental and ethic consideration. The key point raised in this is that water should be priced at its economic value (Savenije 2002). Once this is done, the market will then ensure that the water is allocated to its best uses. This concur with McNeill (1998) who postulates that water as an economic good entail the process of integrated decision making on the allocation of scarce resources, which does not necessarily involve financial transactions at all.

## 9. Conclusions and recommendations

Water governance in Botswana is currently dominated by statutory institutions. While legal pluralism entails the adoption of two or more water governance institutions, the status quo in Botswana is skewed toward statutory institutions. Although water sector institutional reforms are currently being undertaken in Botswana, the pace of the reforms is slow. For instance, the current water law was enacted in 1968 and has been in use since then. In 2005, an attempt to enact a new water law with the intention to incorporate customary institutions is still in the draft form ever since then. With the aim of analyzing the factors that create disharmony between customary and statutory water management institutions, the paper outlined the key tenets of legal pluralism as a conceptual framework underpinning this paper and distinguished water management from water governance by pointing to the fact that one deals with decision making (governance) while the other (management) deals with implementation of measures to ensure an easy access to water. By defining institution as both organizations and rules controlling the use of water, the paper outlines the main roles of both statutory and customary institutions in the governance of water resources in the Okavango Delta in Botswana. Having said that the paper recommends that a survey be conducted in the Okavango Delta to solicit local people's perception for governance of water using both customary and statutory institutions. This should be

done considering the point that customary and statutory institutions perceive water differently. It is against this backdrop that the paper recommends the adoptions of legal pluralism under which water institutions need to embrace both customary and statutory institutions in the Okavango Delta in Botswana.

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