The Discourse of Water Development in Bechuanaland Protectorate, 1900-1965

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Abstract

The paper explores the discourse and views on water resource governance and management in colonial Botswana (then the Bechuanaland Protectorate) in tandem with water resources policy development and practice from 1900 to 1965. It assesses major developments in the water sector regarding policy interventions and their impact on the local population and the country over time. An evaluation of water policy in the southern African nation during the colonial or protectorate era informs the evolution of post-independence Botswana's water sector. The study postulates that the colonial administration up to 1965 either deliberately ignored or was reluctant, due to the costs involved and the existing geo-political dynamics, to significantly develop the water sector beyond the precincts of isolated white enclaves dotted in parts of this predominantly semi-arid to arid country. In the absence of clear state policy particularly in the formative years, water resource governance tended to be arbitrary or highly selective. The arbitrary tendency by the state often culminated in intermittent tensions among the key water stakeholders. Sporadic tensions over water as a critical natural resource for development and the diverse scholarly and other views on water governance all serve to confirm that colonial Botswana did not actively support the development of ample water resources and comprehensive management structures for the benefit of all. The paper shows that this trend apparently persisted throughout the protectorate era up to the end of colonial rule in 1965. It concludes by submitting that in the protectorate era the state did not only neglect water development but it neglected other development sectors as well.

Keywords: Water Development Policy, Long Durée, Resource Governance, Tensions/Struggles, Borehole Syndicates, State Neglect, Bechuanaland Protectorate.

Introduction

This paper explores the discourse of water development in the Bechuanaland Protectorate in tandem with policy development and practice from 1900 to 1965. Although the colonial or protectorate era began in 1885, starting the discussion around that date would be difficult to sustain because meaningful though limited water development in Botswana took place at the turn of the twentieth century. Some bigger villages such as Serowe and Kanye started having piped water and even medical service in 1900 or thereabout thus justifying the 1900 starting point for this paper. The paper is thus placed in the general context of the neglect of development in Botswana by the British during the colonial period. All sectors, for instance, health, agriculture, infrastructure such as roads, education and others were largely neglected. The paper, which makes an important contribution to water studies in Botswana especially on issues of policy development and management, is therefore cast in this situation although not dwelling too much on these different fields, but water. Written from an economic history perspective and highlighting the development and management of water resources in one of Africa's water-stressed regions, it draws on a rich collection of published and unpublished sources including a selection of archival records and field interviews to examine the prospects, limitations and challenges facing the Bechuanaland Protectorate. To give the 65-year period reasonable treatment, the paper offers an extraordinary *long durée* account of the

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protectorate's water development process from 1900 up to the end of colonial rule, which period informs important water dynamics to be covered in a forthcoming paper that focuses on the era of the post-colony.

This paper stresses water governance as a new field of inquiry on how people and societal institutions manage shared or common water resources. At the global and national levels, water governance has over time emerged as an important field of study because of the impact on economic and social security exerted by growing pressure on water resources (World Water Assessment Programme 2009). Water governance refers to the political, social and administrative systems in place that influence water use and management. Practically, it is the sum of the many ways individuals and institutions (public and private) manage their common water affairs. It determines the equity and efficiency in water resource and services allocation and distribution, and also balances water use between socioeconomic activities and ecosystems (the environment). However, while water governance systems have been explored in the past, new pathways to determine improved and sustainable use of water and its management continued in the protectorate era, but were limited. This paper, which explores the views on water resource governance and management in colonial Botswana, assesses major developments in the water sector regarding policy interventions and their impact on the local population and the country over time.

The paper, as revealed in colonial annual reports, advisory meetings and interviews, agrees that the pre-independence government largely failed to improve water delivery and management. The inadequacies of the colonial water infrastructure can be gleaned, among other things, from protectorate annual reports and minutes of the Advisory Council meetings with oral interviews also testifying to this. Emphasising broad views and discourses on water resource governance and management in Botswana, the paper traces how the colonial water infrastructure was grossly inadequate to addressing the developmental demands of the country from the end of the nineteenth century to the first 65 years of the twentieth century. It illustrates that development was lagging in the colonial period as in the pre-colonial epoch because of a poor economy which relied basically on cattle and no minerals. Water management was evidently carried out through decentralised non-state structures such as local committees, borehole syndicates and *Dikgosi* (traditional chiefs) - a function that was centralised after independence. Water development was also the responsibility of the Tribal Administration under the *Dikgosi*.

In a country which receives low and highly variable rainfall of roughly 475 mm per annum on average during the colonial period (Land 1987:27), access to water as a vital natural resource and its distribution over a wide national area has been subject to mixed views and reactions which, however, were restricted but not completely silenced by the colonial authorities. Water was always the most limiting resource in semi-arid environments. In a country which receives low rain (*pula* in Setswana), water (*metsi* in Setswana) and its supply, let alone its extraction posed multiplex challenges especially as the nation does not boast of any major rivers. Water availability was compounded by insufficient seasonal, albeit erratic rainfall that merely promoted sparse vegetation growth and filled ephemeral waterholes. Botswana is a water-stressed country as confirmed in the literature.

Previous studies on Botswana have demonstrated that development in the country was inhibited by water scarcity (Roe 1980; Peters 1984; Makgala 2012; Nyandoro 2013 and Nyandoro 2018). These scholars, apart from Makgala (2012) and Nyandoro (2013), have not taken a *long durée* perspective of the discourse of water development in the Bechuanaland Protectorate. They all, however, do not gloss over the history of water and how different management scenarios emerged since the inception of the protectorate.

Britain took over the land of the Tswana in 1885 to prevent a possible linkup between the Germans in Namibia (South West Africa) and the Boers of the Transvaal Republic. In other words, the colonial enterprise here was not about development of the territory including provision of water but was motivated by geopolitical strategy. As the British became the overall political authority, it meant that the Tswana chiefs wielded (some but) minimal power over, among other things, water development and mainly rudimenta-

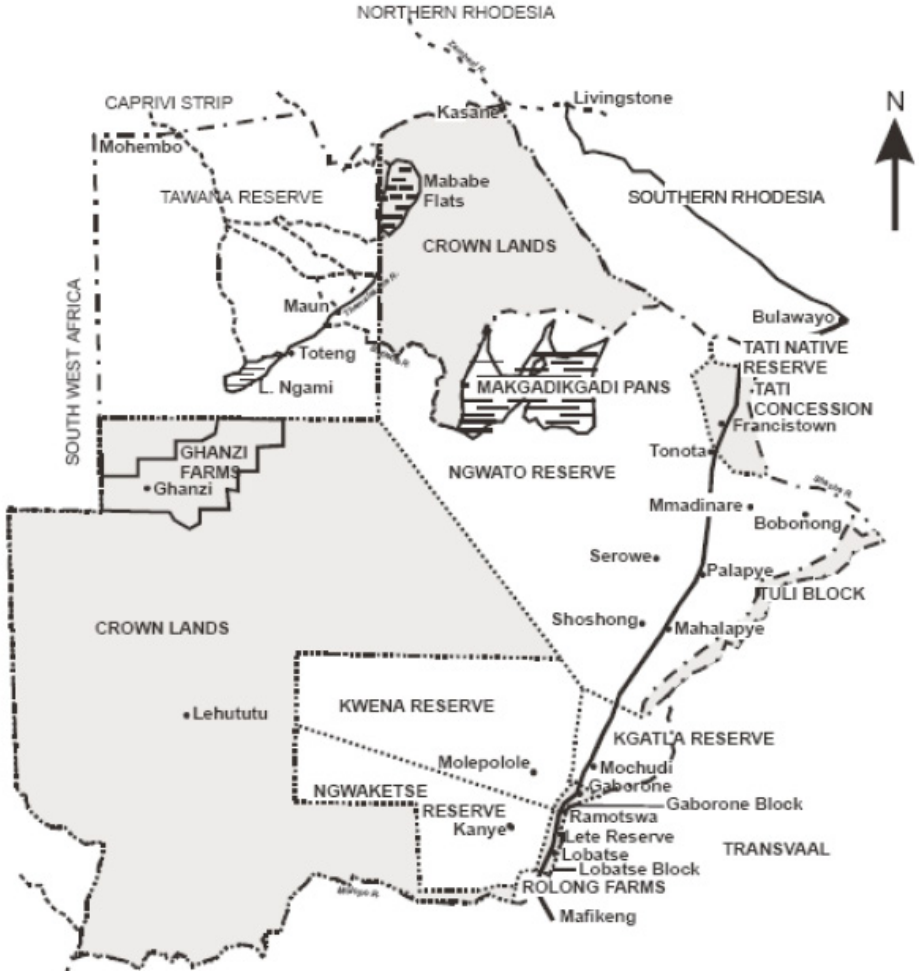
ry water supply infrastructure. In fact, in the nineteenth century and deep into the twentieth century the majority of people drew water from rivers, streams and hand-dug wells. Piped water was a rarity in most communities.

Having established their rule over the Tswana (and collecting tax from 1899), the British merely became preoccupied with maintaining peace and order (Makgala 2012) and left the *Dikgosi* and *merafe* (ethnic groups) without much government support and funding investment to develop water resources and water supply in the perennially drought-prone nation. For Nyandoro (2018), this lack of government support showed that the colonial administration was reluctant to significantly develop the water sector beyond the precincts of the isolated white enclaves dotted in parts of the country because it was expensive. In any case, contrary to Steenkamp's (1991) rejection of the conventional characterisation of colonial Botswana's development policy in the 1930s (especially regarding the cattle industry) as either one of unremitting neglect or deliberate underdevelopment, the colonial enterprise was never meant to benefit the colonised Africans but to exploit them for the benefit of a small white settler community in Botswana or the European metropole (Nyandoro 2018). In colonial Botswana water development, the management of bulk water and its supply to the large and sparsely populated African areas (known as reserves) was then provided by tribal administrations (as their key responsibility), the borehole syndicates and to some extent by the Protectorate administration itself (Makgala 2012:801). The borehole syndicates (a group form of private ownership) emerged between the 1920s and 1930s. Compared to the tribal committees (which were responsible for the administration of African areas), the borehole syndicates were seen as constituting more efficient management (Nyandoro 2013) at a time the government was committed to the pursuit of white settler empowerment policies.

The government, true to its character, introduced skewed development policies in favour of the isolated white settlements. This is the context in which Morapedi (2014) explores the concept of settler empowerment in the Bechuanaland Protectorate. He loosely uses 'settler empowerment' to refer to the preferential assistance given to white settler farmers in the form of credit for agricultural development and skewed infrastructural development. An environment conducive for the agricultural enterprise of white settlers was deliberately created through road construction, the digging of water wells in white areas and the enactment of favourable land allocation policies which made land cheap as the Protectorate government availed exclusive access to fertile or prime land to whites (Morapedi 2014). Other studies that explore settler empowerment and its repercussions, the development of the ranching enterprise, crop production and the relationships that developed between Africans and white farmers include works by Schapera (1971), Russell (1976), Russell and Russell (1979), Mogotsi (1983), Mupindu (1983) and Mgadla (1990), among others.

Although development policies tended to be in favour of the whites, some modicum development was taking place in the African areas. In the African areas or tribal reserves, however, efficiency or lack of it in the provision of local services differed from one tribal reserve to another (Makgala 2012). For instance, in water development, animal husbandry, agriculture (crop cultivation) and education, the Kgatla 'reserve' led the way, followed by the Ngwato 'reserve'. In these sectors, the Ngwaketse and Kwena territories were more or less on an equal footing while the Tawana 'reserve' (see Map 1 for location of 'reserves') usually lagged behind (Makgala 2012:788). There were thus these variations in colonial Botswana.

Map 1: Bechuanaland Protectorate - Location of Tswana 'Reserves'



Source: Adapted from Makgala and Botlhale (2008:39).

Striving for water development efficiency clearly was not given priority during the Protectorate. Nyandoro (2018) tries to fill this efficiency void which was reminiscent of the colonial era by analysing this period to be compared with the post-colony later. The colonial neglect of water resource development, however, has been refuted by Steenkamp (1991). He, for instance, pays tribute to Charles Rey, the Resident Commissioner at the time, for responding to the needs of the country's economy with a comprehensive development strategy focusing on water resources and the revival of the cattle industry. His argument that cattle and water were inextricably linked in colonial Botswana, nevertheless, cannot be interpreted to mean that there were totally no challenges or impediments.

The challenges that afflicted the economy were a result of undeveloped water resources and that water security in the early colonial times was restricted mainly to a reliance on the world's largest inland delta, the Okavango Delta (which is Botswana's major freshwater source for people and wildlife), bore-holes and wells for potable water and agricultural water including water for watering livestock (Peters 1984 and Peters 1994). This reliance on the Delta (which gets its waters from Angola and empties into the North West of Botswana) and colonially-implemented sources of water like boreholes (Peters 1984; Peters 1994) illustrates poor development and backwardness. In respect to backwardness, Makgala (2010:61) points out that Leopold Amery, Secretary of State, who visited Bechuanaland in October 1927, was disturbed by the territory's general lack of development and backwardness: 'I had no idea what a backwater they were until

I saw them myself. All the new stir and life in the Colonial Empire has hardly touched them at all'. Hence, the penury he witnessed in Bechuanaland led him to appoint Charles Rey as Resident Commissioner or Administrator of the territory in 1929 in an effort to ameliorate the situation (Makgala 2010:61).

For Nyandoro (2013 and 2018) water shortage in largely desert Botswana pre-dated political independence and is a matter of world security. In the 1880s, the level of government expenditure on water supply as well as state funding of surface and underground water supplies in the Bechuanaland Protectorate was low, but water supply and demand statistics for that period are not easy to find (Nyandoro 2013). What is known, however, is that water demand was not high because of the small population size of about 84,210 in the 1880s and the absence of major industries (Bechuanaland Protectorate 1927 and 1936; Nyandoro 2013). Since the 1880s some effort though was invested in water development and research, but it was rather underwhelming or disappointing. With no perennial rivers under its full control (apart from the tail-end of the Okavango River), and a drought-prone environment the territory had few water resources to meet ordinary demand and support economic growth (Nyandoro 2018). The impact of droughts on farming in the Protectorate was serious. By 1965, the agricultural sector continued to be severely affected as water and agriculture development for the peasant sector was still neglected by the administration (Jerven 2010 and Nyandoro 2018).

The lack of a focused water policy by the Bechuanaland Protectorate administration had constrained the economy of the country. Roe (1980), Peters (1984; 1994), Makgala (2012), Nyandoro (2018), Parsons and Crowder (1988) reveal the inadequacies of the colonial water infrastructure and management system which was mainly confined to the borehole programme. Tswana rulers (especially Isang Pilane, Regent of Bakgatla-ba-Kgafela) and other *Dikgosi*, following the Pim Commission Report of 1933, had lobbied hard and successfully for the borehole programme to be developed. This lobbying culminated in an over-reliance on underground water resources as evidenced by the significant increase in borehole and water development projects throughout the territory between the early 1930s and the late 1970s (Pim Commission Report 1933; Sillery 1974; Tlou and Campbell 1997). Colonial annual reports, as already indicated, suggest that the demand for water in pre-colonial and colonial Botswana was perceived to be minimal, based on population size and the lack of major industries. However, such a view is erroneous, because water development projects were constrained by limited funds and a political landscape dominated by white interests (Peters 1994). The lack of funds thesis has also been corroborated by Morapedi (2014) who says water development on a national scale failed because available funds were often deployed for the advancement and supply of water to the few white-owned mines and ranches. Against this backdrop and literature, the role of several factors – the state, important economic sectors and other stakeholders in shaping Botswana's hydrological development trajectory are evaluated in the paper from 1900 to 1965 – the year that marked the end of colonial or protectorate rule.

Water Administration and Control in Pre-Colonial Tswana Society

In Botswana - a country where water shortages caused by the vagaries of the weather were more endemic than in many parts of the Southern African region - the chiefly elite traditionally exercised hegemonic powers over water supply in the pre-colonial period. The *Kgosi* and his *kgotla* or public assembly exercised central authority over water and land (Peters 1984). With the prevalence of drought and water scarcity, people largely resorted to sinking wells to tap groundwater, that is, before the drilling of boreholes which started in the 1920s. Attempts at water development and control started at the turn of the twentieth century when water, so vital for socio-economic development, was necessary for cattle husbandry and the establishment of central pre-colonial 'towns' (Peters 1984:31). The centrality of control over water points characterised the political organisation of pre-colonial Tswana polities in the sandveld although Tswana groups in the Transvaal (South Africa), where water was more abundant, did not experience similar centralisation of water.

The demand for and significance of water has been emphasised by Jacobs' (2003) work on water development among Tswana groups, Batlhaping and Batlharo, in the Kuruman area (south of the Kalahari Desert) which like Botswana is also desert. Environmentally challenged by poor soils, erratic rainfall, and searing summer temperatures, the area is nonetheless watered, to some extent, by the underground supplies that reach the surface through springs, such as the Kuruman Eye (Jacobs 2003). Water and grasslands facilitated both pastoral and arable production, the implementation of which varied in nature and intensity at different points in response to fluctuating climatic conditions, changing power structures, population pressures, and alternative economic opportunities. In this area, from the early nineteenth century the London Missionary Society (LMS) made efforts to turn the Kuruman Mission Station into productive, intensively cultivated plots by diverting water from the Kuruman River to irrigate the land. The rich water source of the Kuruman Eye, though, had been granted to whites, leaving poor and displaced Africans with only 11% of the land, downstream from the main water supplies. For Jacobs (2003), economic development that addresses the issue of poverty and contributes towards social justice, therefore, requires a more equitable distribution of land and water resources, as well as the promotion of small-scale sustainable production. Water was, and still is, therefore a central element to development.

The need to find new water sources then lay behind much of the mobility of people or even entire chiefdoms, and many struggles between chiefdoms focused on water sources. Struggles over water usually took the form of conflicts over grazing lands especially those defined by the presence of water sources (Peters 1984). In pre-colonial times, therefore, wealthy and powerful Tswana, such as *Dikgosi*, established exclusive claims over water sources (Mackenzie cited in Kinsman 1980). Such powerful people drew strength from and exercised their power over others through what the environment (for example, water and land) was able to provide (Jacobs 2003). Before colonialism, in stark contrast to the colonial era, water sources were thus communally or corporately managed through traditional Tswana institutions with a long history of centralised and hierarchical authority (control), which also guaranteed user rights to water for all recognised members of the community (Peters 1984), at least in principle. Centralisation actually persisted as a key feature of colonial era water management in Botswana.

Major Colonial Benchmarks in the Water Sector: The State and Equitable Distribution of Water, 1900-1930s

Wells and pressure to develop/improve water supplies

After a quiescent phase in erecting water facilities and infrastructure before 1900, wells constituted the main source of centralised water supply, and between 1902 and 1910, newly constructed wells at Serowe cost up to £250 each (Palmer and Parsons 1977). Up to the 1920s, water was provided through wells run by traditional institutions such as tribal committees which were allegedly characterised by rudimentary, inefficient and poor management (Nyandoro 2018). Communal or corporate management of water wells, as in pre-colonial times, predominated. This was typically a bottom-up management structure. However, as demands for more and equitable distribution of water increased, the Native Advisory Council (NAC), representing mainly the chiefs or *Dikgosi* who represented their people in the Council, was formed in 1919 (Manungo 1999 and Sharma 2004), and later renamed the African Advisory Council (AAC) in 1940. The establishment of this advisory structure, whose main rival was the European Advisory Council (EAC), was not solely to address water supply but it was because the Bechuanaland Protectorate lagged behind most British African colonies in the development of its government (Manungo 1999). Key issues for the Council included racial discrimination in the Protectorate, constitutional development, agricultural improvement, and (above all) preventing the Protectorate's incorporation into the Union of South Africa formed in 1910 (Manungo 1999). Although in the colonial era the NAC, mainly comprising the *Dikgosi* and constituted to serve as an advisory body on African interests to the Resident Commissioner, Rey, focused on the

issue of racial discrimination (Manungo 1999; Sharma 2004), it was not merely formed for this purpose. Racial discrimination was just one of many issues raised in the Advisory Council. With the inception of the Council however, peasant agency increased, and clamours for water and proficient management of this resource by both small and large cattle owners also became incessant.

The NAC relentlessly probed and questioned the lack of water development. It argued that the funds initially set aside by the Protectorate administration for the development of water supplies were trivial. For example, the common pool called the Native or Colonial Development and Welfare Fund (CDWF) that was established in 1919 with a contribution from each taxpayer of 3/-, which rose to 5/- in 1923 was not enough (Makgala and Botlhale 2008). As a consequence, members of the NAC challenged this from the onset as epitomising the neglect of African development. This largely explains why the statement by the Ngwaketse representative in 1920 that 'our complaint is about water' was endlessly reiterated by Advisory Council members in subsequent years (Peters 1984:34). The minutes of the Advisory Council meetings also reflected the pressure that African representatives were exerting on the administration and the British government to improve water supplies, especially to cater for livestock (Peters 1984:34). At the administrative level, water supply development was tied in to funding outlay the colonial government was prepared to give or invest in water infrastructure through grants-in-aid, which were inadequate or sporadically disbursed.

Grants-in-Aid and funding bottlenecks

Funds for water development were, however, not always forthcoming from the colonial power (Britain). The lack of adequate funding for water development was bemoaned by the chiefs who constituted the membership of the NAC. Clearly, the grants-in-aid availed by the CDWF were derisory as evidenced by the disbursement in 1927 of a paltry sum of £500 for borehole drilling in the Bakgatla reserve (Roe 1980). Since this was not enough for the construction of vital groundwater supplies, it prompted the Regent, Isang Pilane, to levy £6.10s per person from his people, to drill boreholes. This illustrated that there were major funding bottlenecks coupled with piecemeal colonial government efforts to provide adequate water supplies. The major trends in water development, including available funding opportunities in the 1920s, have been aptly summarised by Schapera in the following way:

> At first practically all water development in the Reserves was undertaken and paid for directly by the Tswana themselves. The administration's share was limited almost entirely to sinking wells along a few of the principal routes by which cattle for export were trekked to the railhead. In 1919, however, a special Native Fund was created … [and its] omission of specific reference to the provision of water supplies indicated the relative unimportance in which they were held at the time … Nevertheless, the Native Fund had contributed in a modest way to the most notable effort made by any tribe to improve its water position. In 1927 Isang, while acting chief of the Kgatla, carried out an elaborate programme of boring for water in his reserve. A grant of £500 from the fund proving inadequate, he imposed a levy of £6.10s upon every taxpayer in the tribe. He raised about £4,000 altogether; £1,500 was spent on boring, with a drill and expert labour hired from the Union Government [of South Africa], and the balance paid for installing pumps and reservoirs [tanks]. Sixteen boreholes in all were sunk, of which seven proved successful: two in Mochudi, and the other five in grazing districts. The sites were selected by Isang himself, and not by expert geologists, which accounts partly for the high proportion of failures (Peters 1984:35 and Schapera 1943:242).

Some boreholes were drilled in the early 1930s. However, subsequently, no grants-in-aid were allocated between 1935 and 1946 due to the worldwide economic recession, following the Great Depression of

1929, and due to the Second World War (1939-1945). Although by 1929 most of the water supplies in the communal lands were wells, Isang Pilane's communal borehole drilling programme signalled a shift towards increased borehole drilling as exemplified by the Protectorate *Annual Report* for 1929 which states that: 'The proposed use of Government drills for water-boring throughout the Protectorate should in time go far towards enabling the native population to have a reasonable supply of water' (Bechuanaland Protectorate 1929:28).

Notwithstanding the criticism levelled at the colonial government, the sinking of wells and the drilling of boreholes can particularly be credited to the Bechuanaland Protectorate. However, 'a very serious aspect of these wells is that the underground water level [appeared] to be receding and each year three or four more feet [had] to be added to the depth of the wells' (Bechuanaland Protectorate 1929:28). This does not only reveal that the water table was vulnerable to uncontrolled welling and drilling, but it also illustrates inefficient management of water resources and the lack of water conservation awareness in the colonial period as demands for water continued to rise.

Thus, Colonial Development and Welfare grants were utilised for the installation of Surface Water Development Schemes (SWDS) in the 1920s and 1930s. In addition, irrigation schemes were initiated in the late 1940s with dams of varying sizes as their major source of water, but still up to 1955 there was no major investment in water infrastructural development and management to meet the territory's water needs. Grants-in-aid continued to be low as in 1956, only £140,000 was made available, £750,000 in 1961 and this dramatically rose to £6,000,000 in 1965, before dropping to £3,378,000 in 1966, the year Botswana attained its Independence (Morapedi 2006 and Nyandoro 2013). Development was, therefore, rather stagnant or static (Roe 1980; Tlou and Campbell 1997).

The Bechuanaland Protectorate was virtually an economic and political backwater. Small, medium and large dam construction projects, save for the minor 1940s projects like the Bathoen Dam built at Kanye in 1943 (Makgala 2012:803-804), were only adopted and implemented as a major strategy by 1965, involving communal labour and the Rhodesia Railways (Roe 1980). The Native Fund facilitated grants-in-aid and was based on a levy paid by Batswana to assist development. A large proportion of the revenue collected by the Bechuanaland Protectorate administration was, however, not allocated for the upgrading of water supply services as the British grappled with minimising expenditure in all their territories, but it was devoted to financing the costs of administration and the maintenance of peace, law and order (Makgala 2012). It was also expended on education and livestock services in particular the prevention and eradication of cattle diseases like foot and mouth that perennially afflicted Botswana (Morapedi 2014).

Livestock ranching mainly depended on water supply which, in the early colonial period, was not very reliable. In spite of sentiments about water unreliability, Steenkamp (1991), as noted earlier, categorically rejected this argument by paying tribute to Charles Rey for developing water resources for the revival of the cattle industry. Nevertheless, his view cannot be interpreted to mean that there were totally no water challenges or impediments (Nyandoro 2018). The challenges of the economy included lack of water for watering livestock (Peters 1984 and Peters 1994), hence the development of water resources for ranching was given prominence by the colonial administration. The emphasis on livestock ranching persisted until the 1930s and the Rey Diaries are important in understanding colonial water policy during this decade (Sir Charles Rey Papers cited in Makgala 2010). From pre-colonial times and throughout the colonial period, cattle formed the lifeblood of the economy of the Tswana. In Tswana society, cattle were perceived by most people to constitute wealth and to define social status (Morapedi 2006). Colonial schemes particularly favoured large cattle holders. The schemes, vigorously undertaken from the early 1930s, were a product of the development of the local cattle industry. Realising the precarious nature of Botswana's economy, Charles Rey almost single-handedly 'revolutionised' the cattle industry through the development of permanent water supplies, making the industry the main revenue earner in the country

(Morapedi 2006).

In fact, the bulk of the development budget from 1933 to 1939 amounting to about 62.1% was used in activities related to the cattle industry, while 37.9% was shared by other sectors, such as crop production, communications and health (Morapedi 2006). Thus, 'development' in a comprehensive sense was attempted only during the administration of Colonel Charles Rey (Parsons and Crowder 1988), following the 1930s depression and the protracted droughts of that era. Another factor which stimulated the 'development' of ranching was the weight restrictions placed on Bechuanaland cattle by Hertzog's government in South Africa since 1924, which induced the Protectorate administration and the Advisory Council to think of alternatives to cattle exports (apart from smuggling). Growing demands for livestock water necessitated the setting up of a government commission of inquiry into the matter under the chairmanship of Sir Alan Pim in 1933 as discussed below.

The Pim Commission: State-Sponsored Borehole Drilling and Dam Construction

Demands for improved water supply (and livestock breeds or herds) led to the setting up of the Pim Commission in 1933. The transition to increased provision of government-drilled communal boreholes (and to some extent state-sponsored dam construction) gained impetus from the recommendations of the Pim Report. The Report asserted that 'At every stage of our enquiries, whether they related to agriculture, to cattle, or to human health and amenities, we realized that the absolutely essential condition to any progress was the improvement of the existing water supplies and the provision of new water supplies' (Pim Commission Report 1933:110). In the main, 'water hits at the heart of a number of growth issues' in southern Africa and beyond (Nyandoro 2019:2). As in Southern Rhodesia (now Zimbabwe), the Bechuanaland Protectorate needed to 'hit the single weakest point in agriculture [and other sectors] – [that is] water' (Nyandoro 2019:5). For Bechuanaland, this was clearly the context in which Isang Pilane and other *Dikgosi* (who made up the NAC) in particular had effectively lobbied for the borehole programme to be developed after the Pim Commission. It was realised in government circles that the main limitation to the expansion of animal husbandry was 'too few reliable sources of water'. In this regard the *Bechuanaland Protectorate Annual Report* for 1938 succinctly pointed out that

> it [is] clear that the livestock industry constitutes the mainstay of the economic life of the country, and at present offers the only reasonable possibility of development … The provision of further water supplies will remove the main difficulty in the development of the livestock industry of the Bechuanaland Protectorate and to this end drilling machines are now being utilized with successful results in various parts of the Territory to tap underground water supplies (*Bechuanaland Protectorate* 1938:10-12).

In the colonial era the NAC became a very influential body in lobbying for water development in addition to demands for the improvement of education, agriculture, transportation and the health sector. Colonial Welfare and Development grants were issued and utilised for the installation of SWDS in Bechuanaland. However, as a colonial norm, limited development was focused on uplifting the Tswana in a comprehensive way. Morapedi (2014) has testified to how, like in colonial Zimbabwe under Cecil John Rhodes' British South Africa Company (BSAC) rule, Africans who fell under the Tati Company (TC) authority (located near Francistown) were treated as second class citizens who were discriminated against, economically exploited and deprived of land and water rights. The Africans in the Tati white farming districts or settler enclaves, in addition to being exploited by the TC and white farmers, were grossly neglected in terms of a number of developments (Morapedi 2014:566). As a result, on 26 February 1942, RA Ritcher (as quoted in Morapedi) wrote to the high commissioner stating that he felt that it was time that the Tati territory should

be freed from the stranglehold of the Tati Company. He also stated that the monetary gain or revenue derived from 'this Territory' be devoted to its care and development, 'as well as the economic and social advancement of the indigenous African people' (Morapedi 2014:566). He added, 'the Tati Company have [sic] been and are [sic] holding the Tati territory in a way not beneficial to the territory [Bechuanaland] and the African people' (Morapedi 2014:566). Ritcher then requested and suggested that, 'the Tati Company should, each year, set aside a percentage of their gross revenue towards expenditure in the maintenance and development of the territory, as, also towards the economic development and social advancement of the native peoples'.

Particularly hitting on water whose development had for years been neglected, Ritcher continued by saying, 'I should expect to find, at each village, where the community is considerable or groups of villages, where several are reasonably adjacent, either a borehole or a dam to provide assured water in reasonable quantity and a community dipping tank' (Morapedi 2014:566-567). The neglect of water was confirmed by a member of the EAC, LS Glover, who in 1947 during a meeting of the Council moved a motion advocating the reorganisation of the Public Works Department and the financing of a Water Division 'to enable water development and water maintenance … [and to increase] watering facilities [for cattle]' (Tlou and Campbell 1997:130). In his view, the matter was extremely urgent and demanded a definite policy, 'for water is life'. He went on to state that 'The new feature that makes a definite policy necessary and urgent is the fact that from now [1947] on, this Protectorate must stand on its own feet financially and we can no longer afford to rely on the remittance-man complex which left undone what could not be paid for by grants-in-aid or CD Funds'.

Nevertheless, from 1946 to 1956, the authorities applied for development grants of £2.5 million and £830,000 from the CDWF. From this, the livestock industry and the development of water sources (mainly for cattle) received nearly £500,000, while the development of African agriculture was allocated a paltry £26,995 (Morapedi 2006:363-364). Minor irrigation schemes, as already stated, were initiated in the late 1940s with small, medium and large dams as their major water source (Roe 1980:17). Up to 1955, approximately 65 stock watering dams were completed in six eastern communal areas. According to the former Botswana Department of Water Affairs (DWA) Directors, OT Obakeng and BBJ Khupe, although this effort was plausible, before 1955 little attention was, however, given to the development of surface water resources for African use in particular because people continued to rely on underground water (Interview with Obakeng 2011; Interview with Khupe 2011). So, the territory remained an economic backwater in the 1950s. The pre-independence and especially the pre-1955 period has thus been perceived in some circles as developmentally static with no major commitment in erecting water infrastructure. In particular, the period 1949-1955 was one of crisis in the Bechuanaland Protectorate owing to the controversial marriage of Seretse Khama to a white woman. This period also saw interesting political developments in the form of tribal councils meant to cater for previously oppressed and marginalised ethnic minorities. Subsequently, though, the period after that year or after 1955, (i.e. 'years of progress') was seen as one of substantially greater development activity in the major sectors of the economy, notably livestock ranching and agriculture (including irrigation farming).

The 'Years of Progress', 1955-1965

From the mid-1950s to the mid-1960s (dubbed the 'years of progress' by Tlou and Campbell 1997) the construction of groundwater supplies for livestock and the agricultural sectors reached a colonial crescendo (Roe 1980: 20, 29), but still there was limited major investment in water development. For instance, water supply and funding of surface and underground water supplies in the Bechuanaland Protectorate remined low from 1900 right up to 1965 (Nyandoro 2013:13). While some measures were taken to boost development, they were biased in support of white farmers and white enterprises. In the late 1950s, the

colonial administration had embarked on tangible measures to bolster white farmers. For instance, water supplies on cattle trek routes and roads in the Territory were improved. By June 1957, approximately £15,000 had been spent from the Underground Water Development Scheme D2639 in providing adequate water supplies between Ghanzi and Tshane and on the original trek route from Ghanzi to Lobatse. The water supplies were equipped with reservoirs and drinking troughs under the CDWF Scheme D2677 which provided for an expenditure of £5,000 (Morapedi 2014). Table 1 shows CDWF expenditure from 1935 to 1965 (Roe 1980 and Nyandoro 2013), but it does not compare and contrast water development in the African areas and white enclaves, and there are also no population figures for these racial categories. The growth of the African versus European population has been provided by Charumbira et al (2015). In 1911, they say there were 1,692 Europeans and 123,303 Africans compared to a total population of 543,105 recorded in the 1964 census as shown in the final report released in early 1965 (Charumbira et al 2015).

Table 1: Colonial Development Fund/Commonwealth Development and Welfare Act Funding of Surface and Underground Water Supplies in the Bechuanaland Protectorate

Year	Underground Water Supplies (£)	Surface Water Supplies (£)	Total
1935-37	25 300	-	25 300
1937-46	127 312	-	127 312
1946-55	243 127	104 930	348 057
1955-60	411 628	88 396	500 024
1960-65	42 650	-	42 650
TOTAL	850 017	193 326	1 043 343

Source: Roe (1980) and Nyandoro (2013)

However, what is clear from Morapedi's (2014) analysis is that the massive state support or assistance provided for white agriculture in the Ghanzi settlement scheme became the basis of its success in future as the Ghanzi farms developed into the beef hub of Botswana (Morapedi 2014) – a status they continued to enjoy several years into the post-colonial era.

During this 'decade of progress', the construction of groundwater supplies in African areas albeit in less comparative ways was vigorously pursued in realisation of the synergies that existed in the livestock, agricultural and water supply sectors of the protectorate (Roe 1980 and Heady 1966). Although between 1955 and 1965 surface water development projects continued with major dam work at Lobatse (where a lucrative beef market had emerged and an abattoir had been opened) and Gaborone, as in Southern Rhodesia, efforts were clearly under way to establish settler farming on a firm footing in Botswana. That effort culminated in the creation of an agricultural bank in 1962, later known as the National Development Bank, with the aim of making funds readily available for the development *inter alia* of water resources, fencing and the upgrading of white farms (Morapedi 2014). By 1965 the Gaborone Dam was completed.

Generally, post-war development planning in the Bechuanaland Protectorate in terms of water development was still slow. However, according to Makgala (2012:788), 'although there is some truth in the argument that the outlying areas of the subject tribes were neglected, there is also a danger of overgeneralisation since through tribal committees some of these tribes were represented and could contribute to tribal developmental planning'. However, with the advent of majority rule in 1966, the demand for water in Botswana's urban areas and African villages continued to be an ever-pressing issue as there was still no water department as the Protectorate administration was averse to growing the water sector beyond the few white settlements at the time. Hence, this means that the decade 1955-1965 actually

constituted 'years of progress' for white and not African enterprise. This trend persisted throughout the colonial era and was only reversed by the advent of a new government in 1966 which was committed to rectifying water provision and management problems of the past although challenges of droughts and inadequate funding among others persisted.

Conclusion

This paper has shown that the Protectorate era water provision and management of bulk water supply to the relatively sparsely populated African areas in Botswana was provided by tribal committees, borehole syndicates and to some extent by the colonial administration itself. Water supply, management and governance was skewed in favour of the few white enclaves or isolated settlements in the country which by population size were small as shown in Charumbira *et al*'s (2015:12-22) 'History of Census Taking in Botswana'. Although the tribal administrations were beleaguered by financial, logistic, personal, personnel, political and administrative problems they made commendable efforts to provide local services such as water in their local areas in a political environment where the colonial government was not willing to devolve water provision powers to them in a meaningful way (Makgala 2012). This always provided a terrain or venue for water conflicts and struggles between the two throughout the colonial period.

Overall, therefore, the pre-independence and in particular the pre-1955 period was developmentally static with no major commitment in erecting water infrastructure and the period after that showed development progress especially in white livestock ranching and agriculture. In spite of the perceived progress in the so-called 'years of progress' in these sectors, the colonial period was however generally static for all sectors of the economy including agriculture, energy, health and education. Therefore, water policy development was largely constricted in the Protectorate era in which the state did not only neglect water development but it neglected other development sectors as well.

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