"WATER WARS": LEGAL PLURALISM AND HYDROPOLITICS IN NAMIBIAN WATER LAW

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SUPERVISORS' CERTIFICATE

I, Professor Manfred O. Hinz, hereby certify that the research and writing of this Thesis was carried out under my supervision.

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DECLARATION

I, the undersigned, hereby declare that the work contained in this Thesis for purposes of obtaining my degree of Master of Laws, is my own original work and that I have not used any other sources than those listed in the bibliography and/or quoted in the references.

______________________ ______________________

Clever Mapaure **Date**

To

My Grandmother, Ethel Musati (92)

Who knows water law without having had a teacher to lecture her

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Abstract

Namibia is the driest country in the SADC Region. Conflicts and multifarious questions about water are manifest. Central to the enquiry on water law in Namibia is the question as to who owns water in Namibia and what the implications are of the environmentally sensitive water law reforms introduced by Namibia. Research on miscellaneous issues under these two major themes was based on both empirical or field research and desk research. This required a combination of quantitative and qualitative research, analysed through a legal plurality conscious approach incorporating general inductive data analysis. This method led to the conclusion that although the state creates a public trusteeship principle under the Constitution in regard to the ownership of natural resources, the communities on the ground, at least those in the three studied regions of Kavango, Otjozondjupa and Ohangwena, regard themselves as the owners of water as opposed to the State. The majority of rural communities ascribe to their local environmental laws that they own the water in their locality, and the 2004 Water Act contains certain reforms which are not acceptable to them; hence the legislature has to reckon legal pluralism in the legislative process. Compounding legal pluralism are the problems created by the national programme of decentralisation and the interactive politics of water institutions in the studied regions, which has created unhealthy hydropolitics among government institutions, and hence a negative effect on the right to water of rural communities. Consequently there is a negative impact on the sustainable water utilisation in the studied regions. The study concludes that the government has to put its environmental law house in order, so that water rights and other environmental rights associated with water utilisation by its populace can be realised. There is in turn, need for vociferous review of the 2004 Act in this context.

Chapter 1

General Introduction

1. Background to the study

The supply of water is a question of life and death. Inadequate water supply or poor quality water may escalate conflicts. Water appears to be the *new oil,* and discussions on the scarcity of water have led to conclusions that the next world war will be about water. Recognisably there is considerable talk of *water wars*, but in fact there is little evidence of international violent conflict over water.[1] What is evident is that conflicts arise as a result of social-political construction of water scarcity, called *second order* scarcity.[2] These micro level complaints have been evidenced in Namibia, and the centrifugal dynamics of institutional control of water in Namibia can be viewed as a confounding variable related to the government's ability to ensure a human right to water.[3]

Conflicts and multifarious questions about water in Namibia, the driest country in the Southern African Development Community Region, are manifest. Central to the enquiry on water law is the question as to who *owns* water in Namibia. Despite the Constitution and some statutes which attempt to clarify the issue, an assessment of the question with pluralistic lenses shows that this is a jurisprudentially controversial question. Thus concise and or co-ordinated answers are as scarce as water itself. Whereas the Constitution creates a public trusteeship principle in the ownership of all

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[1] Ravnborg, H. M. 2004. Water and conflict – lessons learned and options available on conflict prevention and resolution in water governance. DIIS Brief. Copenhagen: Dansk Institut For Internationale Studier.
[2] Ibid.
[3] Falk, T.; Bock, B. and Kirk, M. 2009. Polycentrism and poverty: Experiences of rural water supply reform in Namibia. *Water Alternatives* 2(1), 115 – 137.

natural resources in the country, the communities on the ground do not seem to take a word out of it. Communities seem to ascribe to their customary laws; hence the plurality or at least duality of legal systems in the country is a situation to reckon with, insofar as the management of not only water but all natural resources is concerned.

If one says that Namibia is the driest country among SADC nations, is it justifiable to say that Namibian rural communities and their livestock are indeed thirsty? The answer still has to be assessed in the forthcoming Chapters. Be that as it may, another question arises: why are rural communities going without water for days if not weeks? This question can only be answered if one critically considers the hydropolitical institutional arrangement of the country which shows that Namibia's rural communities suffer from *second order water* scarcity, ranging on a scalar level from macroeconomic and institutional underdevelopment, to micro-politics, and seemingly arising out of the hydro-political interactions between various actors in rural water supply, evidencing legal pluralism and conflictual water management and ownership regimes.

Why is this so, and what remedy could be recommended? In attempting to answer these questions one has to look at policies and programmes put in place by the water administration which obviously have had unintended implications in rural water supply. The official promise to the local communities is to secure water supply through the Decentralisation Programme. This programme gave rise to what is called Community Based Management. Rural communities were and are still to receive the control over water points in their areas through Water Point User Associations and water committees. Inasmuch as this programme was accepted by the central

government in general, and some sects of the population, and eventually found legislative force, the current situation shows that the process of decentralisation has created some unhealthy hydropolitics, such as, the employees of the Directorate of Rural Water Supply in the Ministry of Agriculture Water and Rural Development (MAWRD) are supposed to work under the Regional Councils in all the 13 regions of the country. Realty shows that this is not the case.

Officials of the MAWRD feel that the Regional Councils are not ready to handle the affairs of the Directorate of Rural Water Supply, whereas the Ministry of Local Government and Housing (MLGH) has done all necessary checks on the readiness of Regional Councils and concluded that Regional Councils are ready to handle rural water supply; hence, delegation of the service should be implemented. Furthermore and ironically, the delegation of rural water supply to regions is already gazetted, and employees of the Directorate of Rural Water Supply have signed secondment letters to effect the intended delegation process. At an earlier point in time, it was felt that the delegation of powers should go on, but at a later time, the delegation was stopped! This situation has created resentment in the regions, at least the studied ones, and the end user of water is being affected without knowledge of the source of the problem. Indeed, a sad situation!

Apart from the interactive politics of rural water supply, the law has its problems as well. Section 16 of the Water Resources Management Act of 2004 provides a role for community groups, organised as Water Point User Associations (WPUAs) and Water Committees (WCs). These institutions help in the management of water resources at the community level. The role of the abovementioned entities in the management of water resources and in provision of water services is thus clearly recognised.

However, organisation and operation of these institutions is top down, and analysis is required to determine whether this top down approach to rural water management has a negative effect on the rights of rural residents to water.

In addition to this, the role of Traditional Authorities is not spelt out in any way in the 2004 Act. It can be presumed that water point user associations and local water user associations and their committees will include Traditional Authorities or they will work together. The 2004 Act makes only limited provision for reliance on non-state based systems, institutions and mechanisms such as Traditional Authorities and other customary law regulated governance structures. The Act seems to assume that the legal framework in Namibia is comprised of a monolithic and uniform legal system which is essentially state centric in nature. This fuels the politics of water resource management and control, which in turn seem to affect availability of water to rural communities – a recipe for micro-water wars. This is another point in Namibian water law which has created some resentment among Traditional Authorities, some of whom have called water committees, 'puppets of the MAWRD' – an unresolved question of legitimacy of statutory institutions in a pluralistic society needing redress.

It is also surprising that people *own* private boreholes in communal land. Can water be privately owned, and can there be private ownership on communal land? Whereas the issue of communal water rights and rural water supply has received special attention, both in the Water Resources Management Act of 2004 and the Draft Water and Sanitation Policy of 2009, details on water ownership, water governance, water utilisation by rural populations and communal property rights are still unclear, and thus need to be clarified in Namibian water law. Notable is that the 2004 Act created a public trustee in water ownership. Thus there will only be public ownership of water

in Namibia. The question arising from there is whether Namibia's shift to this public rights system is in line with the Constitution which recognises both private and public ownership of natural resources.

2. Statement of the problem

Under the South African Administration, Namibia was using Water Act 54 of 1956. After independence, under the new Constitution which could not recognise some of the principles in the 1956 Act, the new government of Namibia embarked on a legislative and policy review of the water sector. The Water Policy of 1992 was one such product, and the 2004 Act was another product. These instruments along with the Constitution create a natural resource ownership regime whereby the concept of a public trust overrides all other ownership regimes in the country. This position does not seem to be in accord with the concept of community property, and hence needs clarity, especially considering that there is legal pluralism in Namibia.

The 2000 Policy and the 2004 Act regards water as a fundamental human right, but the Constitution does not explicitly provide for the same right. The interactive politics of institutions in rural water supply seem to be affecting the communities' right to water negatively. There is no literature assessing the right to water in a legal plural state concentrating on the meaning and implications of the 2004 Act on rural communities who normally use customary law and informal structures as opposed to state/formal institutions and legislative rules.

The separation of water from land ownership is a puzzling development which needs special consideration. This development shows that much 'modernisation' of water resources legislation evidenced in the 2004 Act is underpinned by a culture of decoupling water resources from the land, which is in conflict with customary water

rights generally deriving from customary land tenure.[4] It therefore has to be analytically considered whether, by cutting off customary water rights from land – the source, the risk is further erosion of cultural identity and diversity of the rights holders and their groups. In particular, if decoupling is pushed to the extreme of allowing statutory water rights in general, and formally recognised customary water rights in particular, to drift away from the land and the original purpose for which water was abstracted and used thereon, to where the market dictates, there is a serious risk of further marginalising the holders of customary water rights and their groups.

Generally Namibia has scarce water resources whether underground or otherwise. The government has to make sure that the supply of water is adequate to the rural communities, but has failed in many instances. In 1997 the government created a state owned entity, Namibia Water Corporation (NamWater), to help in the provision of water in bulk. The provision of water in bulk is mainly for municipalities, but the functions of NamWater have also been extended to rural communities. NamWater operates on a business basis, regarding water as an 'economic good', meaning that there is commerce in the provision of water. With this, the involvement of NamWater in rural water supply has created many different, and especially negative, feelings. The corporatisation of water supply is not working well insofar as rural water supply is concerned.

In Namibia hydrological scarcity has not been scientifically proven, but what is evident from research, though not expressly stated, is that Namibian communities are experiencing second order scarcity.[5] There is evidence of scarcity in certain communal areas of Namibia, but what this scarcity really is has not been explicitly

[4] FAO 2004 p.83-94, 104-105.
[5] Falk, Bock, and Kirk, 2009 *supra*.

investigated. This scarcity seems to arise out of the interactions between the actors in rural water supply evidencing legal pluralism and conflictual management regimes, hence the need for further research on this topic.

Legal pluralism does not have to be overemphasised. The focus should be critical scrutiny to determine whether the evident plural legal codes in application in rural water regulation ensure an atmosphere for the realisation of the fundamental principles of water management in the 2004 Act. This involves an analysis of the extent to which customary institutions are recognised by the Act. Noting that indigenous, socio-legal repertoires only make sense in their own, dynamic and particular context, while national laws demand stability and continuity, under this broad issue, questions regarding how to avoid 'freezing' of customary and indigenous rights systems in static and universalistic national legislation in which local principles lose their identity and capacity for renewal, making them useless, remain to be investigated.

Rural water supply is an important aid to rural development, but in Namibia it has never been clarified how the community-driven development approach is applied to rural water supply. The community-driven development approach prompts a consideration of the politics of the central administration decision making process versus community administration and public participation in developmental process of rural areas in the context of water supply. Recognising that there is second order scarcity, and noting that community driven development is an approach to development, not a model, it is important to seek answers to questions such as whether local community involvement in decision-making about services and implementing and managing those services are linked to greater beneficiary

satisfaction with services, and thus a greater willingness to pay for water supplied by governmental institutions.

3. Aims of the study

Increasing legal and policy support for community-based natural resources management and institutional redesign has been followed by questioning of the feasibility, risks, and results of such approaches. Problems of pervasive politics, legal approaches and contextual contingency indicate the need for revising assumptions and expectations. In this context the objectives of this study include:

a) Seeking empirical evidence to answer questions regarding ownership of water resources in communal areas and whether there is a difference in water and land ownership in communal areas
b) Analysing the extent to which the right to water is respected by the stakeholders in rural water supply
c) Analysing whether local community involvement in decision-making about water services is linked to greater beneficiary satisfaction with services, thus considering whether customary arrangements are statutorily enforceable or whether they form part of the social adaptive capacity of communities, and as such whether they can aid integrated water resource management under the 2004 Act
d) Examining the role for traditional leadership in water management in the cross-over zone between traditional rural customs and the new democratic governance and service delivery structures in Namibia
e) Critically analysing whether the corporatisation of water supply worked to the benefit of rural residents, or if it has exacerbated conflict and non realisation of their right to water.

f) Assessing whether the principles of water management in the 2004 Act and the concept of decoupling of water from land ownership are in line with customary water management principles and vice versa
g) Assessing whether local community involvement in decision-making about services and in implementing and managing those services is linked to greater beneficiary satisfaction with services, and thus a greater willingness to pay for water supplied by governmental institutions

4. Significance of the study

The significance of this study is multifarious and multidimensional. In particular the study is significant, for it leads to:

(a) An endeavour to elucidate the concept of water ownership on communal land in a pluralistic society

(b) Illuminating the social conditions, rights and practices that may hinder or facilitate community organisation to achieve better access to water

(c) The promotion of stakeholder participation in the decision-making processes and the decentralisation of water management institutions to rural water supply with the understanding that stakeholder groups are interfaces where relationships are negotiated, and where we can begin to make sense of the relationships among stakeholders in rural water supply

(d) Creation of plurality consciousness among policy and law makers through recommendations for a nationally compatible regulatory and planning based system of managing surface and groundwater

resources for rural use that optimises economic, social and environmental outcomes

(e) Creating awareness by proving that great care must be taken to base projects on local practices and traditions rather than internationally generalised models that specify how rural villages ought to behave

It should be noted on a more holistic note, and more importantly, that in that it will provide plurality conscious recommendations for rural water supply which capture the developments already on the ground, and make recommendations to that end proffering to assist in operation in the management and conservation of water resources in communal areas, in the context of the prevailing pluralism in Namibian water law and stimulating more research into similar topics within Namibia.

5. Research questions

1. Who owns water in communal areas? This question has two variables:
    a. What does the written law say?
    b. What are the views about water ownership by traditional community members who live largely according to customary laws?
2. Has the corporatisation of water supply worked to the benefit of rural residents, or it has exacerbated conflict and non realisation of their right to water?
3. To what extent are traditional water institutions recognised by the legal instruments applicable in rural water supply, and to that extent are they involved in the management of rural water resources?
4. To what extent is the right to water respected by the stakeholders in rural water supply?

5. Is the decoupling principle compatible with traditional community worldviews about water and land?
6. What are the implications of the interactive politics of institutions involved in rural water supply?
7. Is local community involvement in decision-making about services and implementing and managing those services linked to greater beneficiary satisfaction with services, and thus a greater willingness to pay for water supplied by governmental institutions?

6. Delimitation and scope of the field of study

This thesis addresses the diversity of legal regimes that impact on water use that currently exists in rural areas, and proceeds to focus on the competition for water that may result from the diversity of users and uses in a context of water scarcity, and from the diversity of objectives formulated by the public authorities. The thesis will describe the water laws existent in Namibia along with the current institutional arrangements regarding access to water. It will also present the situation in rural areas where traditional systems of water governance interact with formal structures formed by the government in rural water supply. The paper then presents a case study whereby these two sectors have conflicted and negotiated on water rights, access to water and management of water resources in general.

The paper presents a specific case study in rural communities of Kavango, where second order scarcity (to be discussed below) has gripped the communities, and tension exists regarding many aspects of rural water supply. It will describe the specific roles that traditional governance structures and formal institutions play in rural areas, and the situation regarding the water scarcity. The conflict seems to find its place in the laws. Thus the thesis will show some key traits in the historical

development of water laws that have affected water ownership, access and control over the period. The thesis will then propose a standard environmental economics model on externalities' bargaining to analyse the rising inter-sectoral competition for water resource management between the formal and traditional structures. Finally the thesis puts forward observations and explores policy and legal options for regulating such inter-sectoral competition, or for promoting any given orientation, for example equity, local rural development, economic performance and respect for the pluralism which is evident in the analysis of the laws that regulate rural water supply.

It is recommendable as an option that policies and legislation must be amended to recognise multiple uses of water and the heterogeneity of societal stakeholders who need water. As will be shown in the following chapters, the people in the community stressed the need to safeguard the access and usage rights of societal groups who are at the bottom of the social pyramid. they also suggest avoiding legal transplants, because Namibia is hugely heterogeneous in geographical and social terms. Precisely for that reason, water administration must be highly autonomous and democratised, enabling users to take part in water resource management and ensuring equity.[6] From the other standpoint, ethnographic studies emphasise communities' approach to social organisation, management and distribution of water.[7]

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[6]Guevara-Gil and Vera-Dávila, 2002. 'Water legislation and indigenous water management in Peru'. Paper presented at the public meeting: *Water Law and Indigenous Rights –WALIR Towards recognition of indigenous water rights and management rules in national legislation.* On the occasion of the International Water Law and Indigenous Rights Seminar, 4-8 March 2002. Wageningen, The Netherlands, p.48.

[7] See Gelles, Paul. 2000. *Water and Power in Highland Peru. The Cultural Politics of Irrigation and Development.* New Brunswick: Rutgers University Press; Boelens, R. and Dávila, G. (eds). 1998. *Searching for Equity. Conceptions of justice and equity in peasant irrigation*, Assen: Van Gorcum; Mitchel, W. and Guillet, D. (eds.). 1994 Irrigation at high altitudes: The social organization of water control systems in the Andes. Society for Latin American Anthropology, Publication Series, V.12. Washington D.C.: American Anthropological Association.

One characteristic that should be stressed is that this research goes beyond the a priori dichotomy that used to be drawn between rural communities and the government. A theoretical and methodological effort to understand the power dynamics between these two parties is evident. It only remains to explore legal integration among different governmental institutions and local societal stakeholders. This is crucial in describing how the semi-autonomous societal mechanisms that are involved work. Namibian law and policy makers thus need to contrast available contributions with actual field experience, emphasising the need to embrace inter-law dynamics.

7. Arrangement of the Thesis

Chapter 2: *Literature Review and Theoretical Framework* presents the literature review and brings to light the theoretical foundation of the study. In more precise terms, the chapter examines the context in which this study finds itself, starting by exposing some of the relevant findings in regard to rural water supply in a pluralistic society. Further, the chapter presents an overview of the international debates in relation to some of the research questions outlined in Chapter 1. Reference to the various research pieces and literature in general, and an analysis of findings and conclusions in such literature, serve to explore the past and current discussions triggered by the various relevant topics. The purpose of this chapter, therefore, is to provide an overview of the literature on the research questions and the stated problems outlined in Chapter 1.

Chapter 3: *Methodology and Research Process*, describes the research paradigm, theories and methodologies used to carry out analyses of discourses and phenomena in Namibian rural water supply. It is shown in Chapter 3 that the researcher employed

multiple methodologies and adopted various theories in approaching or interpreting different types of data gathered. The technique of triangulation and the interpretive and critical paradigms was employed in the analysis of data gathered from empirical data and desk research. The purpose of employing these techniques is to answer the research questions and address the problems stated in Chapter 1. This will be done in the context of the theoretical background laid bare in Chapter 2.

Chapter 4: *The Ownership and Control of Namibia Waters in Historical Perspective*, explores the theoretical, legislative and policy background to Namibian water law. It aims at answering the questions regarding ownership of water in Namibia and the background or rationalisation of the position of the statutes and policies. In order to do this, the chapter traces water law from Roman times through the colonial or occupation period to present day laws. This approach will attempt to achieveor enable a clear and straightforward trace of the development of Namibian water law. Further the chapter provides some highlights on how the development of the common law informs the current water law in Namibia.

Chapter 5: *Ownership and Control of Namibia Waters: An Empirical Experience*, presents empirical evidence about how the rural communities perceive or regard themselves as the owners of water in communal areas. The chapter further presents statistics of different views on the question of ownership of water. The evidence illuminates that the fact of legal pluralism seems to turn the idea of a unified legal system into mere fiction, since the majority of the interviewees subscribe to the meaning of the law as propounded by positivists. The evidence further shows the plurality of views need careful explanations or interpretation, and it is in this light that the researcher had to solicit explanations and comments for the positions interviewees

showed. These comments of respondents in the field are recorded and weighed against literature and compared to other studies elsewhere. The empirical evidence recorded in this chapter shows that the customary laws of the communities and the pieces of state legislation seem to be antagonistic to local laws at some crucial points, a conflicting and confusing situation regarding the management of water resources in communal areas, and this has created some unhealthy hydropolitics. Without exploring the conflicts and general hydropolitics, the chapter lays a foundation for the discussion in Chapter 6 and 7 and yoked up with Chapter 4, the findings in this chapter also inform the recommendations contained in Chapter 8.

Chapter 6: *The Right to Water in a Pluralistic Society*, connects researchers' observations on the practice of a right to water in rural Namibia, at least in the studied regions, with how that right could be considered within the broader context of the plural legal regime of Namibia. The chapter first considers the right to water in general, and assesses the legal foundations it has in international instruments. It goes on to consider the implications of Section 3 of the Water Resources Management Act 24 of 2004 (the 2004 Act) in Namibian water law. The chapter then makes a critical analysis of the right to water in a legal plural state, concentrating on the meaning and implications of the 2004 Act on rural communities who normally use customary law and informal structures as opposed to state/formal institutions and legislative and rules, and then simultaneously analyses the hydropolitics that come as a consequence of this reform process.

Chapter 7: *Thinking beyond the Water Box: the Politics of Namibian Rural Water Supply*, covers the interactive politics of all stakeholders involved in rural water supply within the context of Namibian water law. It concentrates on the interactions

and working relationships among and between various institutions at play in the supply and management of rural water resources and the individual opinions of rural residents. The precise objectives of this chapter are (1) to analytically review the efficiency and functions of the Water Committees and study the functioning of the participation of Traditional Authorities therein, (2) to examine the apparatus of state institutions like Namibia Water Corporation (NamWater) in rural water supply, management and control, and the impact of such on water accessibility, availability and affordability by rural residents (3) to examine the people's participation and their liveliness in the water management decision making processes, and (4) to recommend policy interventions to make the water management institutions more successful.

Chapter 8: *Lessons and Recommendations: A Pluralistic Approach to Namibian Rural Water Supply to Curb Water Wars* provides a summation of the previous findings and recommends a number of options where problems have been identified. The lessons and recommendations are in line with the research questions outlined above in this chapter. These lessons emanate from the analysis done in Chapters 4 to 7. These chapters provide crude results of some of the issues which arose in this research study, in addition to the research questions. However, in Chapter 8, all issues whether directly falling under research questions or related thereto will be consolidated, and the result thereof will lead to more detailed conclusions and recommendations.

Chapter 2

Literature Review and Theoretical Framework

1. Introduction

It is imperative that a theoretical foundation be laid before one embarks on presenting research data to answer research questions. This Chapter presents the literature review and exposes the theoretical foundation of the study. A theoretical framework refers to "the philosophical stance informing methodology and thus providing a context for the process and grounding its logic and criteria".[8] In this light, this chapter reflects again on the research topic and analyses literature that exists in the field, noting particularly how experts answer the questions researched in this study. The chapter examines the context in which this study finds itself, starting by exposing some of the relevant findings in regard to rural water supply in a pluralistic society. The chapter also presents an overview of the international debates related to controversies in local water laws. Reference to the various research selections and literature in general, and an analysis of such literature, serves to explore the past and current discussions triggered by the different topics. The purpose of this chapter, therefore, is to provide an overview of the literature informing the research questions and the stated problems outlined in chapter 1.

For this literature review, various sources have been accessed. These sources include traditional sources such as text books, published articles from refereed journals and unpublished articles from different sources as well. However, a reference to

[8] Crotty, M. (ed.). 1998. The foundation of social research: Meaning and perspective in the research process. London: Sage Publications, p.3.

traditional literature only could not serve this research field adequately, as the discussions are immediate, contemporary and urgent. Therefore, the literature review includes the growing fields of accessible, dynamic and prolific sources found through the internet. The quoted internet sources include articles from on line journals, published conference and workshop proceedings, un-refereed papers as well as open websites by various organisations.

The following literature review also touches on the quality of published work, interprets effects and highlights shortcomings and gaps in literature and research done by others elsewhere. Further, it provides a general organisation and pattern and combines both summary and synthesis of concepts in Namibian water law. Depending on the topic, in some cases new interpretations of old material are given, and/or combinations of new and old interpretations of concepts and data are provided. Some parts will trace the intellectual progression of the field, including major debates. And depending on the subtopic, evaluations of the sources will be provided and advice on most pertinent or relevant principles or laws will be provided.

2. Will a thirsty world fight over water?

Research on water across different disciplines has shown that the world is running short of water. Hence there is a looming water crisis which may lead to water wars. Researchers across the globe have voiced concern about the future of water reserves in various parts of the world. A recent report by the Integrated Regional Information Networks (IRIN) entitled *Running Dry: The Humanitarian Impact of the Global Water Crisis* epitomises a growing consensus that exists about water.[9] Fontein asserts

[9] IRIN/ Integrated Regional Information Networks. 2006. 'Running Dry: The Humanitarian Impact of the Global Water Crisis, In-Depth Report (October 2006),' available at http://www.irinnews.org/in-depth.aspx. Last accessed 26 June 2009.

that there is, a global water crisis, of an unprecedented scale, unfolding.[10] The report quotes a pithy statement by Fred Pearce, author of *When Rivers Run Dry*, to make the point about where responsibility for the crisis lies, and what the humanitarian stakes are likely to be:

> Our demand for water has turned us into vampires, draining the world of its lifeblood. What can we do to prevent mass global drought and starvation?[11]

The IRIN in-depth report refers to a respectable list of other reports, authors and institutions to build its case for an escalating water crisis. According to the International Association of Hydrologists, with 'a global withdrawal of 600–700 km3/a [cubic kilometres per year]' groundwater is 'the world's most extracted raw material'.[12] Some experts warn that 'the amount of water being used globally is more than twice the quantity being recharged by rainfall every year',[13] and terse statements about pending threats to international security – that in the 21st Century armed conflicts, both international and civil wars, 'will be fought over water not oil'[14] – have become common place.

In addressing water scarcity and increased population pressures many countries are adopting water management models, allocation strategies and water-pricing mechanisms as their primary means to regulate water consumption. A number of

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[10] Fontein, J. 2008. 'The Power of Water: Landscape, Water and the State in Southern and Eastern Africa: An Introduction.' *Journal of Southern African Studies*, 2004 34 (4): 738-756.
[11] IRIN, Running Dry, 2006. ibid; see also Pearce, F. 2006. *When Rivers Run Dry: Water – The Defining Crisis of the Twenty-First Century*. Boston: Beacon Press.
[12] IRIN, Running Dry, 2006. ibid, p. 4.
[13] Fontein, J. 2008. citing IRIN, Running Dry, 2006. ibid; p. 5.
[14] Fontein, J. 2008. citing de Villiers, M. 1999. *Water Wars: Is the World's Water Running Out?* London: Weidenfeld & Nicolson; Gleick, P. H. 1993b. Water and conflict: Fresh water resources and international security. *International Security* 18 (1): 99-104; Solomon, H. and Turton, A.R. (eds), 2000. *Water Wars: Enduring Myth or Impending Reality?, African Dialogue Series 2 (Durban/Pretoria, ACCORD*. Green Cross International & the African Water Issues Research Unit (AWIRU); Starr, J.R. and Stoll, D.C. (eds), 1998. T*he Politics of Scarcity: Water in the Middle East*. Boulder, CO: Westview; Turton, A.R. 1999. 'Water and Conflict in an African Context', Conflict Trends, 5 (1): 24-27.

issues befuddle these processes across the globe, including ownership regimes, management models and the relationship between water pricing and allocation on one side and the right to water on the other. Adding the prevalence of deteriorating water quality and the increased awareness of water-related environmental and social problems explains why water resource management has become a critical policy issue in many parts of the world.

Governance has become a key consideration in the international literature on water governance and development. For example, The United Nations' 2003 World Water Development Report states that the water crisis is mainly a crisis of governance. The 1992 Dublin-Rio Statement acknowledges that water is massive in volume but "finite" in nature. Attached to governance issues is the concept of ownership of common pool resources and rights allocation for same.

3. Ownership of water in general

It should be noted that there is no literature on Namibian research which addresses ownership of water specifically. Most research has dwelt on the ownership of communal land and other natural resources in general but not specifically on water. Furthermore, there is no research that has been done in Namibia to assess the effects and implications of legal pluralism on Namibian water law. Furthermore, although there has been research on Namibian rural water supply, most of the literature to be explored below did not address the hydropolitics of Namibian water law as a specific subject.

According to the Food and Agricultural Organisation of the United Nations, it is impossible to separate water from land ownership.[15] This position holds especially if we consider the position of groundwater in any country. According to the FAO, the management and use of groundwater raises a number of key questions about the land tenure rights/water rights interface.[16] In Namibia groundwater is an increasingly important resource. According to the FAO, groundwater is relatively vulnerable to both over-abstraction and pollution, and as a result is at increasing risk in many parts of the world. Historically regulated as a specific aspect of land law, attempts to bring groundwater within the administrative water rights regimes provided for in modern water legislation have not always been successful, not only in developing countries.[17] This is clear as we see that communities often reject the position of the State on ownership of water resources and the decoupling of water from land ownership. The FAO says:

> The perception of groundwater as a private resource or, at the opposite end of the spectrum, as an open-access resource, irrespective of the legal regime under which it is exploited, appears to be so intense that an effective de-coupling of land and water seems impossible to obtain, even if an economic rationale applies. There would therefore appear to be limited options for advancing reform and land tenure, particularly in arid and semi-arid countries where access to groundwater is the only means with which to bring land under production.[18]

The FAO reports that the land tenure/water rights interface operates on two main levels. At a functional level groundwater resources are vital to the use of land in many parts of the world and thus to the value and utility of the tenure rights that relate to that land.[19] In this context therefore, continued unsustainable use leading to the overdraft of aquifers will thus have negative impacts on land tenure rights.

> At a conceptual level the direct relationship between land that is subject to tenure rights and the groundwater beneath it suggests it may be worth examining whether existing difficulties in trying to regulate groundwater with a similar basic regulatory approach as that used for

[15] Hodgson, S. 2004. *Land and Water – the Rights Interface*. Geneva: Food and Agriculture Organization of the United Nations.
[16] Ibid.
[17] Ibid.
[18] Ibid, p.208.
[19] Ibid.

> surface water might not be better resolved, in part or in whole by taking greater account of the interest of holders of land tenure rights.[20]

In the view of the FAO, further research is necessary into the use of land tenure-based approaches to the management of groundwater such as experience with groundwater districts, a form of water user associations in Namibia and elsewhere across the world, and other land and community-based approaches to groundwater management.

4. The Namibian legislative framework

The current water legal framework cannot be fully understood without an exposition of a short historical background to Namibian water law. Namibian water law owes a lot to the South African legal system. South African water legal history thus has to be briefly explored before the principles and perhaps contradictions in the current legal framework are synthesised. Rowlston, Barta and Mokonyane[21] give a concise history of how the South African water legislation, which informs the current situation in Namibia, in which law has evolved from the days of the Dutch settlers until recently. Rowlston, Barta and Mokonyane state that:

> Historically, water law in South Africa evolved according to the changes set in motion by the social, economic and political developments as they took place on the sub-continent. The evolution of South African water law can be traced back to the Dutch settlers who established a permanent colony at the Cape of Good Hope in 1652 after which, for the next 160 years or so, the colony was ruled more or less directly from the Netherlands. All land was held in freehold, and the State had ownership of all water, and absolute control over its use, under the Roman-Dutch law principle of *dominus fluminus*. In 1814 the Cape became a British crown colony. The State played only a limited role in water resources development, which was dominated by private agrarian developers primarily concentrating on irrigation advancements. Village and town authorities were fully responsible for the water supply and sanitation needs of local inhabitants.

According to the authors, following the creation of the Union of South Africa in 1910, the first, nationally-applicable water legislation - the Irrigation and Conservation of Waters Act - was passed in 1912. This Act, with some amendments, regulated water

[20] Ibid.

[21] Rowlston, B. Barta, B. and Mokonyane, J. 2000. 'Implementing New Water Law: A South African Experience.' Paper presented at the Xth IWRA World Water Congress, Melbourne. Available at http://www.watermagazine.com/secure/jc/0187.htm. Last accessed 12 May 2009.

resource development until 1956.[22] State involvement in water resource management was largely limited to irrigation-related waterworks. Furthermore, the post World War II global industrial recovery and the resulting high demand for primary raw materials required water legislation to be adjusted, and the Water Act of 1956 was introduced. This Act perpetuated the riparian principle in terms of "normal flow" and "private water", which granted exclusive use but not ownership, but the Act also attempted to regulate all "public water" for all water user sectors in the national interest by giving the State control of all water in excess of users' rights.[23]

Numerous Government Water Control Areas were established, in which the water courts had no jurisdiction, and the State played a major role in planning and implementing water resource developments. However, under the doctrine of apartheid - separate development – which originated in 1948 with the election of the Nationalist government, access to water resources became increasingly skewed in favour of the white population. The needs of the majority black population, herded into artificially-created and under-resourced "homelands",[24] were to all intents and purposes, ignored by the government.

4.1 Public and Private Water

Namibian water resources are largely regulated by the Water Act of 1956. This Act makes a clear distinction between "public and private" water. "Public water" includes

> 'any water flowing or found in or derived from the bed of a public stream, whether visible or not.'[25]

Private water, by contrast, means

[22] Ibid.
[23] Ibid.
[24] The ''Homelands Policy" was an instrument of the Apartheid government whereby black Africans were forced to move and become citizens of designated rural areas.
[25] Section 1 of the 1956 Water Act.

> all water that rises or falls naturally on any land or naturally drains or is led onto more pieces of land which are subject of separate original grants, but not capable of common use for irrigation purposes.[26]

Section 6 of the Water Act of 1956 stipulates that there is no private property right to public water, whilst Section 5, which addresses private water, vests 'the sole and exclusive use and enjoyment of private water in the owner of the land on which such water is found'. The 1956 Act thus gives preferential abstraction rights to the landowners on whose land such water is found.[27] This is known as the Riparian Rights principle which is discussed in detail below.

Since 1990 ownership of natural resources in Namibia has been governed by the Constitution. The Constitution, by virtue of Article 100, vests all ownership of natural resources, including water, in the State. Article 100 does not only vest ownership of water in the State, but also by implication gives the State ultimate responsibility for, and the authority over, water resources management, including allocation. However, this is subject to the proviso, 'if they are not otherwise lawfully owned', the full implication of which needs to be investigated.

The Ministry of Agriculture, Water and Rural Development says that "whereas the concept of public water in the Water Act is substantially consistent with the Constitution, the concept of private water is prima facie at odds with it".[28] This is an issue to be pursued in detail in Chapter 2. Pursuant to the problems which the

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[26] The doctrine of supremacy of the Constitution requires that all laws should be subject to, and be consistent with the Constitution, that is, in letter and spirit and purport. The Constitution of Namibia sets out the minimum standards against which existing and future laws or any conduct for that matter must be measured or tested. Water law, be it statutory or common, is no exception to this rule.

[27] Land-based entitlement: Rights to abstract and use public and private water is based on the riparian principle which means that the right to water usage is determined by the location of the water resources in relation to the land. Ibid. p.18.

[28] MAWRD/Ministry of Agriculture, Water and Rural Development. 2000, Namibia Water Resources Management Review: Legislative and Regulatory Frameworks: Theme report. Windhoek: Ministry of Agriculture, Water and Rural Development, p.7.

Ministry sees in the dichotomy between private and public water, in 1996 the Ministry of Agriculture, Water and Rural development, submitted a Cabinet Agenda memorandum to Cabinet in which it recommended that Cabinet approve in principle that the President, in terms of Section 28(1) of The Water Act, as amended, proclaim the whole national territory of Namibia as a subterranean water control area.

This position evidenced itself in the 2004 Act which vested all water in the State by stipulating that "Ownership of water resources in Namibia below and above the surface of the land belongs to the State." This created what is called the public trusteeship, which is dealt with in detail in Chapter 2, and its implications are analysed in Chapters 3 and 4. The right to use public water is divided into agricultural, urban and industrial purposes. In terms of Section 7 of the Water Act, as amended, any person may, while he/she is lawfully at any place where he/she has access to a public stream, take and use the water from such a stream for the immediate purpose of watering or dipping stock or drinking, washing, cooking or use in a vehicle at that place, or for purposes of waterborne sanitation or watering of crops on land not exceeding one hectare in size. Such water may, however, not be used for irrigation purposes on land in excess of one hectare in size without a permit from the Department of Water Affairs.[29]

After 1990 when Namibia gained independence and held the first national democratic elections in 1994, the new and more representative national government introduced a socio-economic doctrine focusing on equity and sustainability as the major objectives

[29] *Section 7 (a) A as amended by section 4 of Act 22 of 1985.* Section 9B as amended limits the quantity of public water that may be impounded or stored in (private) water work to 20 000 cubic meters. A person who wishes to construct, alter or enlarge a water work capable of impounding more than 20 000 cubic meters is required to obtain a permit from the Law Administration Division of the Department of Water Affairs.

of national development policy. The ew government continued with the 1956 Water Act, meaning that the inequities of the apartheid water resource management were to continue governing Namibian water law regime. However, on a positive note, Cabinet came up with the Water and Sanitation Policy (WASP). This Policy practically suspended some of the unfavourable provisions of the act and sought to create equality through the incorporation of constitutional principles.

In 2004, Parliament enacted the Water Resources Management Act, which was intended to repeal and supersede the Water Act of 1956 in its entirety, and introduce equitable access to water resources for all population groups in Namibia. Both laws are -- as all Namibian laws are -- under the principle of the Supremacy of the Constitution[30] -- subject to the overriding authority of the Constitution of the Republic. The Water Resource Management Act of 2004 (the 2004 Act) provides an integrated enabling legislative framework within which Namibian water resources can be managed, and water services can be provided.

The above facts reveal that the development of Namibian water legislation over time shows changes and constant conflict of interests between the State and the public in terms of water use and management. The dominant parties that were involved in this tension were the State and the agricultural sector, and later the industrial sector joined the competition. It should be noted that during British rule, local authorities were fully responsible for the water supply and sanitation requirements of local inhabitants and not the central government. "Water management decisions were taken locally and the sustainability of water resources depended on how local communities were managing the resource. Even during the time of the Union of South Africa the role of the state

[30] Article 1(6) of the Constitution of Namibia

was "limited to irrigation activities".[31] Initially the focus in terms of water use was on agriculture, and this was the sector that was involved in water resource management. Bate, and Tren write:[32]

> … South African government became involved in irrigation from the beginning of the 20th century. This involvement, through legislation and financial support, increased after every major crisis and subsequent report. Nevertheless, South Africa gradually moved from a situation where water rights were centrally administered and planned, to one where some administration was devolved first to a provincial level in the 1980s and then to a local level in 1993.[33]

Rowlston, Barta, and Mokonyane note that the previous system of managing water resources, which was sector focused, was made worse by Apartheid and its supporting legislation based on separate development. The new water and land legislation in Namibia seeks to significantly change the historical situation, and the aims of the new water policies and laws of post-apartheid South Africa are to contribute to the eradication of the country's widespread poverty and to redress historical race and gender discrimination with regard to water.

It seems that this is one particular aim of the 2004 Water Act in terms of redressing historical problems of allocation and management. However an overriding purpose of the 2004 Act is to ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner for the benefit of all persons. Furthermore, it emphasises that government must ensure that water is allocated and used beneficially in the public interest, while at the same time promoting environmental values.

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[31] Rowlston, B, Barta, B and Mokonyane, J. 2000, Implementing New Water Law: A South African Experience, Paper presented at the Xth IWRA World Water Congress, Melbourne. Available at http://www.watermagazine.com/secure/jc/0187.htm. Last accessed 23 June 2009.
[32] Bate, R. and Tren, R. 2002. *The Cost of Free Water: The Global Problem of Water Misallocation and the Case of South Africa,* Johannesburg and Cape Town: The Free Market Foundation p.198.
[33] Bate and Tren. 2002. ibid, p.198.

Other key points in the 2004 Act relevant to this study are that:

(1) The 2004 Act abolished the Roman-Dutch law notion of "private" and "public water" which fuelled inequitable distribution and access to Namibian water resources.

(2) The Act gives the Minister of Agriculture, Water and Rural Development the power to regulate the use, flow and control of all water in the 19 designated Water Management Areas. There has been a separation of functions. Policy and regulation is vested with central government while operational functions are devoted to water management structures at the local and catchment level. Although the present Namibia water law is more inclusive in terms of access to and management of resources, and has widened the understanding of water uses to include uses beyond agricultural and industrial activities, it does not explicitly make provision for the participation of rural community leadership structures.

(3) Even though the 2004 Act makes provision for community participation in the proposed water management institutions, the design of these institutions (e.g. the Water User Associations) is top down.

What both historical and current legislation shows is how the State uses legislation to `control' access to resources. It seems that both in South Africa and Namibia, through all the historical phases of water legislation, community knowledge of water resource management has not been acknowledged or provided for in legislation and is

controlled by State power.[34] As will be seen in other chapters below, failure to make provision for community involvement in water resources management and the incorporation of indigenous knowledge does not instil a sense of community responsibility and ownership and actually could lead to conflict.

4.2 Riparian ownership principle

A riparian right is a right vested in the owner of land that is situated near a river, stream or watercourse.[35] Under the 1956 Act, the right to use water on an adjacent or upper land was considered as a natural right. Under this system, the right of a lower riparian is protected to the extent of the customary flow of water to them. It was also laid down in law that interference with such flow is wrong and no riparian owner is entitled to obstruct a public river with a dam.

Riparian rights are recognised under the 1956 Act, and the allocations are in perpetuity, and are as a matter of principle not subject to review.[36] It should be noted, however, that the permit-based abstractions are for a specified time period. In practice no permit seems to have been withdrawn for non-compliance with the conditions attached to issuance of a permit or any other comparable reasons. The Ministry of Agriculture, Water and Rural Development notes the flaws, as it acknowledges that:

> These are indeed serious flaws, especially when one has to take into account that in respect of private water, outside water control areas, the State virtually has no control over what the land owner does with their water. Accelerated ground water abstractions and the proliferation of farm dams may result in a relatively small number of landowners controlling the nation's water at the expense of the majority. In fact on one such farms, farmers impound water on a number of dams whose accumulative effect exceeds 20 000 cubic meters, although the individual dams are way below 20 000 cubic meters for which a permit is required.

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[34] Rowlston, Barta, and Mokonyane, 2000. *Supra.*
[35] Rajagopal A. and Janakarajan, S. 'State In Perplexity: The Politics Of Water Right And System Turnover In Tamilnadu.' Paper presented at *Water, Law And The Commons,* 8-10 December 2006, New Delhi, p.16.
[36] MAWRD 2000, *supra* p.9.

It is also important to note that in the case of riparian owners, failure to exercise all or part of a riparian right for a period of time does not result in such right being forfeited and reverting to the State.[37] The greatest flaw in the riparian system is that with pressure on Namibian water resources, riparian landowners are technically and legally capable of controlling a greater portion of the nation's utilisable water to the exclusion of the greater majority who are not landowners. This flaw in the system runs counter to the principle of equitable access to water by all citizens.[38] These flaws are illuminated in findings presented in Chapters 3 and 5.

4.3 Public trusteeship principle in Namibian water legislation

In respect of the above conclusions in legislation and in the literature which dwells largely on land law, it can be deduced that Article 100 seeks to conclude that all natural resources are owned by the State under the public trusteeship principle. The public trust doctrine refers to the duty of sovereign states to hold and preserve certain resources, including wildlife, for the benefit of the citizens. Therefore under the doctrine, the Namibian government "may not destroy or relinquish its control over public resources except under certain, very narrow circumstances".[39] The doctrine traces its roots to the Institutes of Justinian in Roman Law, which declared that there are three things common to all people: (1) air; (2) running water; and (3) the sea and its shores.

The United States Supreme Court's seminal decision in *Illinois Central Railroad v. Illinoi*s,[40] sets forth the central tenet of the public trust doctrine, that the State holds natural resources in trust for the people and cannot alienate the trust *res*. Professor

[37] Ibid.
[38] Ibid.
[39] Musiker DG. 1995. *The Public Trust and Parens Patriae Doctrines: Protecting Wildlife in Uncertain Political Times*, 16 Public Land Review. (16) 87-116, p.89.
[40] 146 U.S. 387 (1892).

Joseph Sax summarised the core principles of the doctrine as it had evolved in American law by 1970 as imposing three restrictions on government action:

> First, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.[41]

This public trust can be seen in Article 100, Schedule 5 of the Constitution, Section 17 of the Communal Land Reform Act and Section 4 of the 2004 Water Act. The creation of the principle through legislative enactments shows that the public trust doctrine in Namibian law empowers the Judicial Branch to overturn substantive choices made by the Executive Branch of the State. On the other side, in Namibian law, and under the Constitution, the doctrine empowers the Executive Branch to implement substantive choices despite objections in the Judicial Branch. Taking from American jurisprudence, it should be noted that under all legislation on natural resource ownership and allocation in Namibia including water, "the state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible".[42]

Whilst the fundamental principles upon which the common property in water rests have undergone no change since 1956, the development of non governmental organisations and free rural communities under the Constitution has led to the recognition of the fact that the power or control lodged in the State, resulting from this common ownership, is to be exercised, like all other powers of government, as a trust for the benefit of all people in Namibia, and not as a prerogative for the advantage of the government, as distinct from the people, or for the benefit of private individuals as distinguished from the public good. Therefore the whole ownership theory, under

[41] See the judgement referring to Sax, 1970, p.477.
[42] *National Audubon Society v Superior Court*, 658 P.2d 709, 728 (Cal. 1983).

Article 100, Schedule 5 of the Constitution, section 17 of the Communal Land Reform Act and Section 4 of the 2004 Water Act, in fact, is but a fiction expressive in legal shorthand of the importance to its people that Namibian people have power to preserve and regulate the exploitation of an important resource.[43]

From the above cited legal provisions, it is discernible that in its capacity as trustee of common pool resources under the public trust doctrine, the State arguably is endowed with duties and obligations akin to an ordinary corporate trustee to respect the right of all residents to water and other natural resources. Archer submits that the biggest problem with application of the public trust doctrine is that many of the protected uses can conflict with each other, and the doctrine creates no specific hierarchy in the uses. [44] Legislatures and agencies generally must balance competing interests based on the appropriateness of the use to the particular area of water law.[45] One case suggests, however, that the protection of waters and wildlife is fundamental to the enjoyment of all other public trust uses.

From the available literature, it cannot be established that the State's public trust doctrine under Article 100 does establish any apparent priority among conflicting public trust uses. The additional constitutional policy requirement under Article 95 to preserve the rights of future generations to marine living resources, however, does not create an overarching limitation on the exercise of public trust uses. This affects the right to water, and indeed, the inherent uncertainty in science and variability in ecosystems necessitates measures to insure the intergenerational rights in regard to the

[43] This position is well supported by American jurisprudence as expressed in *Hughes v. Oklahoma*, 441 U.S. 322 (1979).
[44] See Archer, J H. Connors, D l. Kenneth Laurence, Columbia, S C. and Bowen, R. 1994. *The Public Trust Doctrine and the management of America's coasts.* Amherst: University of Massachusetts Press, p 23.
[45] Ibid.

diversity and quality of, and access to, marine living resources. Marine reserves can provide that "insurance policy" for future generations.

4.4 Ownership of water on communal land

The review of texts below shows that divergent approaches to the discussions on natural resource ownership in general range from the ethnocentric to universalistic via nationalistic perceptions. These perceptions are even misunderstood in their contradiction. This misunderstanding and misconstruction of the law has given some authors the opportunity to take a positivistic stance in interpreting the hazy provisions, and some to take a simplistic praise for local autonomy or cultural relativist reification of local collective rights systems. Some, however, have advocated a critical analysis of the power relations that underpin customary and official systems in a bid to unwrap and unravel the conflict of laws.

The ownership of water cannot be addressed without concurrently addressing the ownership of communal land on which water is found. Government officials are clear on their position – the government owns the communal land in terms of the Constitution Article 100, Schedule 5 and Section 17 of the Communal Land Reform Act.[46] They do not delve into academic reasoning, but they are conscious of the politics attached to the land ownership controversy.[47] This is evidenced by the statement by Founding President, Sam Nujoma in 1996, where the question of ownership seem to have been avoided. Instead the former President concentrated more on the significance of land policy and Traditional Authorities.[48] The closing

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[46] Mapaure, C. 2008. 'Biodiversity at Crossroads. Internal Conflict of laws in the conservation of Forests in Kavango, Namibia'. Unpublished LLB Dissertation. Windhoek: University of Namibia.
[47] Ibid.
[48] Nujoma, S. 'Opening Address.' In Hinz M. O. Malan J. (eds) 1997. *Communal Land Administration Paper No. 38*. Windhoek: Centre for Applied Social Sciences, pp.11-12.

address of Hon. Minister Ivula Itana in the First Land Conference in 1991 points to the same position.[49]

Lynita Conradie and Willem Odendaal, of the Legal Assistance Centre[50] submit that all communal land became state land at independence in terms of Article 100 of the Constitution, read with section 17 of the Communal Land Reform Act. This appears to be a positivistic approach to the concept of traditional ownership as illuminated in the provisions that they use in reaching this conclusion. Taking also from Article 100, Falk submits that "[a]ll natural resources in the Kavango are therefore owned by the government, although the Namibian government recognises the importance of communal resource rights for the protection of forests".[51] Quoting from Cole,[52] the author continues taking note of the rights of the Kavango people in Mutompu to use natural resources without external influence, but does not interpret this to mean communal ownership of land. The Legal Assistance Centre and the National Farmer's Union are also of the view that Communal land is owned by the State as per Article 100 and Section 17 of the Act.[53] Amoo is of the same opinion, although he takes a different perspective with other jurisdictions.[54]

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[49] Hinz M. O. Malan J. (eds) 1997 *supra* pp.64-66.

[50] Conradie, L. and Odendaal, W. 2005. 'Who owns communal land?' Paper presented at the *National Conference on Women's Land Rights and livelihood in Namibia with a special focus on HIV/AIDS,* held from 6-8 July 2005 Windhoek Namibia. Paper on file with the author.

[51] Falk, T. 2007. *Communal farmers' natural resource use and biodiversity preservation: a new institutional economic analysis from case studies in Namibia and South Africa*, p.92. Unpublished PhD. Thesis on file with author.

[52] Cole, D. Powell, N. !Aice, B. and ‡Oma, K. 1998. *San/Vakwangali Natural Resource and Livelihood Study: Mpungu and Kahenge Constituencies, Kavango Region, Namibia*. Windhoek: CRIAA SA-DC, p.22.

[53] See, LAC/Legal Assistance Centre and NFU/The National Farmers' Union and Cohrssen, C. (ed) 2003. *Guide to The Communal Land Reform Act, No. 5 of 2002.* Windhoek: Legal Assistance Centre.

[54] Amoo, S.K. 'A comparative study of the land tenure systems of Ghana, Zimbabwe and Namibia'. In Hinz MO. Malan J. (eds), 1997. *Communal Land Administration Paper No. 38*. Centre for Applied Social Sciences. Windhoek.

We have so many positivists in this world! Black letter lawyering has always been accepted but with scepticism, hence the hunt for more plurality conscious interpreters of the law. From a more objective stance, Hinz's submissions[55] show clearly that all this "ownership" that is being talked about is just a restricted form of ownership meant to balance the powers of governance and management, hence the creation of a trust which, if restrictively interpreted, would mean no State ownership of water on communal land in any way. From a similar perspective, legal practitioners Andrew Cobbert and Clement Daniels[56] assess the history of land ownership in communal areas and date the start of the controversy from the promulgation of the Constitution.

Commenting on communal land ownership, Cobbett and Daniels submit that government officials perceive the land as belonging to the government in terms of Article 100, and traditional communities perceive themselves as the owners of the land and by implication, all natural resources on them.[57] They submit further that the government has received advice given to it by the Council of Traditional Authorities on the issue of communal land ownership indicating that the law on paper is wrong. However, government has not heeded this advice. This is evidenced by the creation of the Permission to Occupy (PTO) on communal land by the government, which clearly defies the claim of the traditional communities on communal lands. This goes in line with the nature of customary law and customary rights reflected in the exposition by Hinz.[58]

[55] Hinz MO. 1995. *Customary land law and the implications for forests, water and plants*. Windhoek: United Nations Food and Agriculture Organisation.
[56] Cobbert, A. Daniels, C. 1996. 'Legislation and Policies Affecting Community-Based Natural Resources Management in Namibia' Windhoek: University of Namibia. pp 11-19.
[57] Ibid.
[58] Hinz, MO. 1995. *Supra.*

According to Hinz, most Traditional Authorities in Namibia see their role in nature conservation restricted to reporting to government officials.[59] They accept this statutory formation "with a pinch of salt", because they believe that they own the natural resources which include the water in these areas. Jones[60] recognises the ineffectiveness of customary enforcement mechanisms in implicating illegal loggers. This has come about with the statutory powers and mechanisms which are not easily compatible with the customary way of doing things. Namweb[61] is of the same opinion, elucidating and evidencing the conflict which emanates from the rights of traditional legal ownership. This traditional ownership is well recognised by the communities as evidenced by the statement of five traditional authorities in 1997.[62] State ownership and administration is alien to them.

5. Legal pluralism and water law

5.1 Theoretical background

In many countries around the world increasing attention is being directed to the need to improve water rights systems. As water becomes scarcer and access more often contested, societies pursue better rules for coordinating water use and settling conflicts. Lack of well-defined and secure water rights increases the vulnerability of poor, politically and economically weaker water users. Improved water rights

[59] Hinz, M.O. 2003. *Without Chiefs there will be no Game: Customary Law and Nature.* Windhoek: Out of Africa Publishers.
[60] Jones, BTB and Mosimane, A. 2000. Empowering communities to manage natural resources: where does the new power lie? Case studies from Namibia. *Ministry of Environment and Tourism, Directorate of Environmental Affairs; Research Discussion Paper,* No. 40. Ministry of Environment and Tourism, Directorate of Environmental Affairs.
[61] Namweb 2004: 'The Ministry of Environment and Tourism has expressed concern over the illegal harvesting of timber in the Kavango Region.' Available at http://www.namweb.com.na/article510.html. Last accessed 20 March 2008.
[62] See Hinz M. O. Malan J. (eds) 1997. *Communal Land Administration Paper No. 38*. Windhoek: Centre for Applied Social Sciences, University of Namibia, pp.67-70.

institutions can raise water productivity, increase benefits from existing and new investments in water use, and enhance rural livelihoods.[63]

However, there is a shortage of information on practical ways to develop better institutions for water rights. Much of the literature focuses on technical complications of water allocation and hypothetical advantages of water markets, without adequate attention to institutional frameworks required for any form of water allocation, and the necessary involvement of stakeholders in the design and implementation of reforms.[64]

Most developing countries instituting water sector reform programmes have to contend with plural legal and institutional frameworks that govern resource use.[65] Chikozho and Latham describe legal pluralism as a situation where the transfer or introduction of one system is superimposed on an existing political structure or culture. Chikozho and Latham[66] say that attempts to unify legal systems in both colonial and post-colonial Africa have generally met with very little success. According to Hooker,[67] despite political and economic pressures, legal pluralism has shown amazing vitality as a working system. Nemarundwe[68] shows that Zimbabwe has not been an exception to the existence of legal pluralism since, in practical terms, communities in the communal areas of Zimbabwe are governed by resource systems

[63] Karuaihe, S. 2008. Transition to community-based management of rural water points. In Mapiki, A. and Makgetlaneng, S. Pretoria: Africa Institute of South Africa, pp217-233.
[64] Ibid.
[65] Chikozho, C. and Latham, J. 2005. 'Shona customary practices in the context of water sector reforms in Zimbabwe.' In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.7ff.
[66] Ibid.
[67] Hooker, M. B. (1975). *Legal pluralism: an introduction to colonial and neo-colonial laws. Oxford: Clarendon Press*, p.viii.
[68] Nemarundwe N. 2003. 'Negotiating Resource Access: Institutional Arrangements for Woodlands and Water Use in Southern Zimbabwe.' PhD Thesis, Swedish University of Agricultural Sciences, Uppsala, p.28.

that have multiple rules with multiple legitimation bases, for example legal and customary, and different enforcement structures and processes.

Ibrahim, Juma, and Maganga[69] note that while there is no doubt about the fundamental role played by formal property rights in shaping how people manage natural resources, the literature on legal pluralism has cautioned against static definitions of property rights. As noted by Meinzen-Dick and Pradhan,[70] policymakers are often influenced by approaches to property rights which regard these rights as unitary and fixed, rather than diverse and changing. As in Tanzania, where a case study was conducted by these authors, this is the case in countries like Namibia, where the government, prompted by increasing pressure on land and water resources, has been busy trying to establish formal legal systems, fixing property regimes and formalising informal arrangements through institutions such as River Basin Boards (ibid). In spite of governments' over-reliance on statutory arrangements for water resource management, a number of studies have highlighted the different roles played by both 'formal' and 'informal' institutions in water management.[71] The inter-play between formal and informal institutions in natural resources management is also well captured by Meinzen-Dick and Pradhan,[72] and Derman and Hellum[73] who have written about the implications of legal pluralism for water resource management.

[69] Juma, I.J. & Maganga, F.P. 2005. 'Current reforms and their implications for rural water management in Tanzania'. In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria.

[70] Meinzen-Dick and Pradhan, R. 2001. Implications of Legal Pluralism for Natural Resource Management. *IDS Bulletin*, 32 (4): 10 – 17.

[71] Boesen, J. Maganga, F. and Odgaard, R. 1999. 'Norms, Organizations and Actual Practices in Relation to Land and Water Management in Ruaha River Basin, Tanzania'. In T. Granfelt (ed) *Managing the Globalized Environment*. London: Intermediate Technology Publications.

[72] Meinzen-Dick and Pradhan (2001) supra.

[73] Derman, B and Hellum, A. 2003. 'Neither Tragedy nor Enclosure: Are There Inherent Human rights in Water Management in Zimbabwe's Communal Lands.' In Benjaminsen, T. and Lund, C. (eds). *Securing Land Rights in Africa*. London: Frank Cass, pp. 31-50.

The continued denial of the existence in Namibia of a pluralistic legal framework is, in our view, inimical to the success of the new law in meeting the needs of the rural poor, who, more than urban based residents, live within a legally pluralistic environment. For this purpose, legal pluralism is understood as referring to a situation characterised by the co-existence of multiple normative systems all experiencing validity.[74] Namibia's rural poor, typically live within normative frameworks in which state based law is no more applicable and effective than customary and traditional norms. The 2004 Act, however, ignores this reality.

Posselt[75] submits that "Both law and custom comprise that code of rules approved by tribal tradition; the hereditary body of established conduct; that which has been observed, recognized, and enjoined from time immemorial, and handed down by the fore-fathers". This definition posits two fundamental elements of customary law. Firstly, it is approved by tribal tradition (communally agreed upon), and secondly it is handed down from generation to generation. However, law (customary or otherwise) is not static. It changes as society adapts to changing social, economic and political circumstances. In this light, Goldin and Gelfand[76] question the extent to which that body of law and practice remains customary when it is subjected to so many pressures. Ibrahim, Juma, and Maganga[77] submit that two important points emerge. Firstly, the colonial era had a profound impact on the nature of laws and resource use

[74] see for instance Von Benda-Beckman, 1997. 'Water Rights and Policy.' In J. Spietz & M.G, Wiber. (eds). *The Role of Law in Natural resources Management.* The Hague: VUGA, pp77 -79.
[75] Posselt, 1935, supra, p.44.
[76] Goldin B. and Gelfand M. 1975. African Law and Custom in Rhodesia. Johannesburg: Juta and Company Ltd. p.28.
[77] Ibrahim H. Juma and Faustin P. Maganga (2005). 'Current reforms and their implications for rural water management in Tanzania.' In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p8ff.

patterns, such that it diluted or altered what was hitherto customary.[78] Secondly, Ibrahim, Juma, and Maganga[79] submit that colonial practitioners embarked on recording customary law so that it would be in a form they were familiar with and to make it more readily accessible to others involved in administering justice.

Chikozho and Latham[80] define customary law as any rule or body of rules whereby rights and duties are acquired or imposed, established by usage in a community and accepted by such community in general as having the force of law. This also includes customary laws as modified by external forces and pressures and the influence of statutory law. Customary behaviour is perhaps best defined as what people consider seemly -- what is fitting and acceptable in given situations.[81] Because of its generally unwritten, flexible and adaptive nature, it may exhibit considerable complexity. This adaptive quality provides the elasticity that underpins its resilience. Chikozho and Latham[82] say that customary law seeks to enforce society's perception of what is normal, what is just and what is consistent with its worldview. According to the authors, such adaptations are iterative and lie within the shifting landscape of the peoples' notions of what is culturally acceptable. They conform to society's current values. As Katerere and Zaag,[83] postulate, customary law in this sense is not something that was, but something that is. Foster[84] postulates that "a particular

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[78] Goldin B. and Gelfand M., 1975. *African Law and Custom in Rhodesia.* Johannesburg: Juta and Company Ltd, p.28; Bryde (1976, p.108).
[79] Ibrahim, Juma, and Maganga, 2005, p.8ff. *supra.*
[80] Chikozho, C. and Latham J, (2005) *Shona customary practices in the context of water sector reforms in Zimbabwe*. In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.7ff.
[81] Ibid.
[82] Ibid.
[83] Katerere, J. and Van der Zaag, P., 2003. 'Untying the Knot of Silence:' *Making Water Policy and Law Responsive to Local Normative Systems* [online] Available at: http://web.africa.ufl.edu/asq/v5/v5i3a7.htm. Last accessed 3 October 2004.
[84] Foster, G.M 1962. *Traditional Cultures: and the impact of technological change.* New York: Harper Bros, p.11.

society is a going concern – it functions and perpetuates itself – because its members, quite unconsciously, agree on the basic rules for living together".

Chikozho and Latham[85] further submit that culture and customary behaviour are reflections of society's perceptions and world views. They submit further that customary behaviour and culture are learned while practicing them. Thus they are the embodiment of society's legal institutions. In the context of the Zimbabwean cultural traits among the Shona community, there however, exist basic differences between Roman-Dutch law (the Common Law of Zimbabwe established through statutes) and Shona customary law that are as fundamental as the differing world views that produced them. The authors give the following examples:

- African law is unwritten. In the western world, all legal systems are recorded and characterised by a high level of certainty and precision.[86]
- African laws are not always clearly defined. They can vary from district to district and even within the same district.[87]
- Customary laws are directly validated by community acceptance - Western law is validated by legislative enactments, case law and judicial precedents.
- Because of its written and codified nature, western law is the preserve of professionals who engage in the esoteric work of interpretation, application and creation of rules.[88] Africans understand their laws by virtue of being and living as Africans. African Customary courts are open to all, and there are no restrictions regarding evidence.

[85] Chikozho and Latham 2005, p.7ff, *supra.*
[86] Bennett T.W. 1985. The Application of Customary Law in Southern Africa: The Conflict of Personal Laws. Johannesburg: Juta and Company Ltd, p.17.
[87] Goldin B. and Gelfand, M. 1975. *African Law and Custom in Rhodesia* Juta and Company Ltd, Johannesburg, p.10.
[88] Bennett 1985, *supra,* p17.

5.2 Water law and sector reform in a pluralistic society

According to Derman, Hellum and Sithole,[89] water reform involves changing how a nation's waters are managed and understood. It seems that Namibia's water reforms were conducted principally with the four Dublin principles[90] in mind, rather than the human rights frameworks also available. Derman, Hellum and Sithole[91] have found that a common feature of customary norms and practices, as observed in a wide range of contemporary studies of natural resource management in Zimbabwe's rural areas and international human rights law, is the emphasis on resources that are vital for livelihood, such as food and water. Furthermore, they have identified principles underlying access to water and land and have been surprised at the strength of normative frameworks despite a literature which emphasises contestation and overlapping spheres of authority.[92] In turn, this has led us to examine if and how these normative local frameworks are consonant with some principles of the right to livelihood and right to water now embodied in a range of international instruments.

In the light of the paragraph above, it can be said that the human rights dimension of plural legal water rights is an issue of equity. The Oxford English Dictionary (1994) defines equity as "fairness and impartiality". In terms of actual water laws and policies, 'equity' is often defined ambiguously to maintain political acceptance.[93]

[89] Derman, B. Hellum, A. and Sithole, P. 2005. Intersections of human rights and customs: a livelihood perspective on water laws. In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.1.

[90] The four Dublin Principles are: (1) Freshwater is a finite and vulnerable resource, essential to sustain life; (2) water is an economic and social good; (3) Water development and management should be based on a participatory approach involving users, planners and policy-makers at all levels; and (4) Women play a central part in the provision, management and safeguarding of water.

[91] Supra.

[92] Ibid.

[93] Chileshe, P. Trottier, J. and Wilson, L. 2005. 'Translation of water rights and water management in Zambia.' In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in

Water allocation disputes and decision processes tend to focus upon 'needs' rather than 'rights', because the principle of equitable use is imprecisely defined.[94] Issues of equity apply spatially, in terms of both physical and political boundaries, and temporally, in terms of the historical and future dimensions and implications of water development, including seasonality. Equity is often conceived as an economic issue in terms of efficiency, and a political issue in terms of control.

However, in a country like Namibia where legal regimes do interconnect and overlap and at times contradict each other, a multidimensional concept of 'equity' remains an appropriate lens through which to view a multifunctional resource like water. Tisdell[95] analyses the dimensions of equity in prevailing water doctrines, concluding that non-priority permit systems (state controlled water allocation) allow for the greatest degree of equity, whereas Shiva[96] concludes that close knit, decentralised systems are more equitable. Syme et al.[97] correlate equity in water allocation with procedural and distributive justice, noting that equity can be successfully negotiated at both universal and situational levels within specific catchments. Clearly, a multi-scalar approach is necessary if equity is to be a considered factor in water rights allocations.

6. Water pricing, water rights and management structures

Water resource management in Namibia is at an important juncture. On the one hand, international experience shows the need for more sustainable approaches to the

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Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.5.

[94] Giordano, M., A., and Wolf, AT. 2001. Incorporating Equity into International Water Agreements. *Social Justice Research* **14**(4), pp.349-366.

[95] Tisdell, J. G. 2003. Equity and Social Justice in Water Doctrines. *Social Justice Research* 16(4), pp. 401-416.

[96] Shiva, V. 2002. *Water Wars. Privatisation, Pollution, and Profit.* UK: Pluto Press.

[97] Syme, G. J., Nancarrow, B. E., McCreddin, J. A. 1999. Defining the components of fairness in the allocation of water to environmental and human use. *Journal of Environmental Management* 57 (11). 51-70.

development and management of water resources. On the other, rapidly intensifying demands for water and for increased investment in the water sector to meet development needs give a new urgency for proper and coordinated management of water resources in Namibia. Water supply, pricing and allocation are contentious issues and significantly affect the right to water.

Rights to water are increasingly crucial and increasingly contested across the Globe. Tsur and Dinar,[98] analysed different pricing practices vis-à-vis their efficiency performance, cost of implementation, and equity effects. Along these lines, their literature survey seeks to review and synthesise the most relevant and current research available pertaining to the many aspects of irrigation water pricing. The body of literature examining these movements is vast and diverse. Most works are normative in nature, dealing with how water should be priced, with some description of actual practicalities and applications. A few are purely descriptive.[99]

Therefore, a comprehensive review of this topic globally is lacking. The survey seeks to address this issue by summarising the accumulated knowledge regarding the implementation and performance of existing water pricing methods over the last two decades. This survey is confined to the resource economics literature pertaining to irrigation water, including external material only when particularly pertinent.

These surveys mentioned above indicate that the methods surrounding irrigation water pricing have many dimensions, both theoretical and practical. That these issues will

[98] Tsur, Y. and A. Dinar. 1995. 'Efficiency and Equity Considerations in Pricing and Allocating Irrigation Water.' *World Bank Policy Research Paper Number 1460*. World Bank: Washington, D.C. and Tsur, Y. and A. Dinar. 1997. 'On the Relative Efficiency of Alternative Methods for Pricing Irrigation Water and Their Implementation.' *World Bank Economic Review*, 11: 243-262.
[99] See for example, Dinar and Subramanian.

become increasingly important as future water and food demands increase, is not in question. Efficiently pricing water will help meet this increasing demand, but what is the best way to increase pricing efficiency? Many argue that water markets offer one solution. However, under which circumstances are water markets viable? What effect will decentralisation have on farm production and the rest of the economy? What are the forces that are moving towards decentralisation or (re)centralisation? The answers to these questions and related methodologies are complex and often site specific. To help contrast these methodologies, a list of case studies and relevant methodologies are included in the appendices.

7. Water rights reforms: theoretical models and approaches

Over time it became evident that the protectionist approach was creating a range of social conflicts endangering the future of natural resources. The protected area model also received criticism for the high economic costs of implementation,[100] for its failure to protect endangered species, and, particularly, for ignoring the needs of local people.[101] For these reasons, traditional conservation methods such as National Parks has been progressively challenged by a counter narrative[102] called 'community conservation' which seeks to redress the injustices of the past by taking into account local people's needs and allowing them to participate in and to derive benefits from conservation.[103] This new counter narrative is centred on the theme that

[100] Leader-Williams, N. and Albon, S. D. 1988. 'Allocation of resources for conservation.' *Nature*; 336 (1), pp. 533-535. Inamdar, A. Brown, D. and Cobb, S., 1999. 'What's special about wildlife management in forests? Concepts and models of right-based management, with recent evidence from West- Central Africa.' *ODI Natural Resource Perspectives* No.33. London: Overseas Development Institute.

[101] Neumann RP 1998. *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*. Berkeley (CA): University of California Press.

[102] Roe, E. 1991. Development narratives or making the best of blueprint development. *World Development* 19 (2): 287-300.

[103] Western, D. and Wright, M, (eds) 1994. *Natural Connections: Perspectives in Community based Conservation*, Island Press, Washington DC.

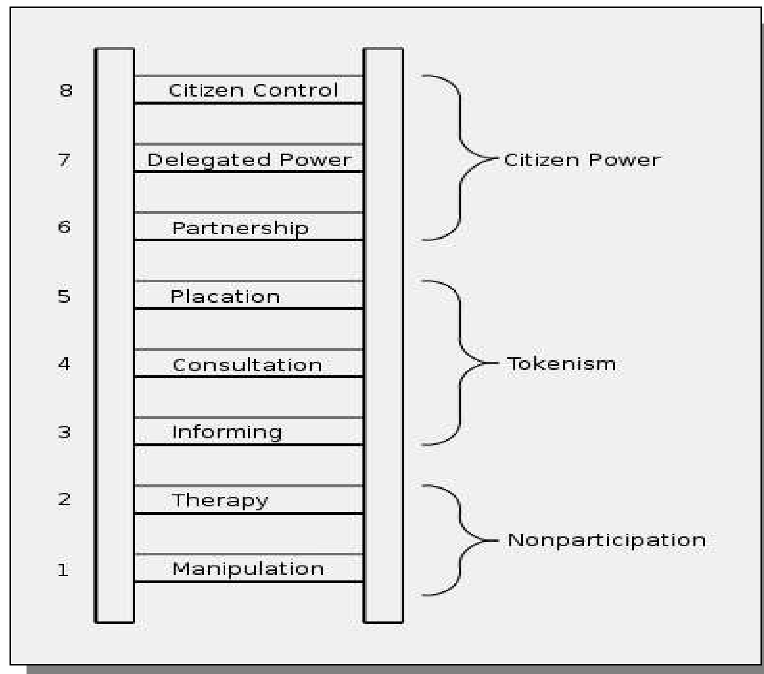
"Conservation will either contribute to solving the problems of rural poor who live day to day with wild animals, or those animals will disappear".[104]

In the last few decades, the shift from fortress conservation to a more 'people centred' approach has been well documented and has spawned a plethora of policies and programmes: community based conservation (CBC), community wildlife management (CWM), community-based natural resource management (CBNRM), collaborative or joint management (JM), and integrated conservation and development programmes (ICDPs).[105] These people-centred approaches have varied greatly in level of participation, and can be analysed using Arnstein and Sherry's ladder of citizen participation in decision making processes[106] .

Figure 1: Arnstein and Sherry's ladder of citizen participation in decision making processes

[104] Adams, JS. and McShane, TO. 1992 *The Myth of Wild Africa*, Norton, New York, p.xix.
[105] Brown, M. and Wyckoff-Baird, B. 1992. *Designing Integrated Conservation and Development Projects*. Washington, D.C.: Biodiversity Support Program; Western, D., and R.M. Wright, eds. 1994. *Natural Connections: Perspectives in Community-Based Conservation*. Covelo, California: Island Press; Adams, W.M. and Hulme, D. 2001. If community conservation is the answer in Africa, what is the question? Oryx 35(3):193-200.
[106] Arnstein, SR. 1969. 'A Ladder of Citizen Participation'. *American Institute of Planners, Journal of the American Institute of Planners, 35 (4)1969, pp.216-224*.

Bottom up



Top down

Source: Arnstein & Sherry (1969).[107]

At the bottom of the ladder is the 'top down', traditional national park model, where local people are ignored and management decisions are made by a central government authority. At the top of the ladder is the 'bottom-up' community based conservation approach, where local people establish and control an area of land and make decisions regarding the use of resources within the area. In between the two poles are various arrangements between local people and central governments with varying amounts of local participation (such as joint management and park out-reach programmes).

In Southern Africa, community conservation has taken the form of Community Based Natural Resource Management (CBNRM). CBNRM sits towards the 'bottom up' end of the participatory ladder. It involves the devolution of management responsibility to local people, the notion of wildlife utilisation rather than preservation, and the idea

[107] Ibid, p. 217.

that markets should play a role in shaping incentives for conservation.[108] There are two separate themes upon which CBNRM is based. The first is the "conservation and development" argument, which arose with the first Integrated Conservation and Development Programmes (ICDPs), whereby benefits and incentives ('development') are provided to local people in the hope that they will be encouraged to adopt conservation friendly attitudes and behaviours.

Experience with past benefit distribution programs, however, has indicated that benefits alone may not encourage conservation attitudes and behaviours. For this reason, CBNRM encompasses a second theme. The second theme is centred on devolution of control over resources, the 'community control equals conservation'. CBNRM seeks to link conservation and rural development by drawing heavily on the participatory methodologies of modern development theory. More specifically, CBNRM aims to redistribute social and political power by devolving management and decision making to communities and allowing them to benefit from the management of wildlife.[109] The underlying premise of this theme is that if communities are given sufficient authority and control over wildlife, they can benefit from its management. Put together, these two themes indicate that benefits may influence conservation attitudes and behaviours if there is devolution of management and community control over resources.

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[108] Hulme D. and M. Murphree, (eds). *African Wildlife and livelihoods*. Weaver Press, Harare, pp 24 – 37; Western, D. and Wright, M. 1994. 'The background to community-based conservation.' *In:* Western D, Wright M, Strum S, (eds). *Natural Connections. Perspectives in Community-based Conservation*. Washington, DC: Island Press, pp. 1–12.

[109] Jones, BTB. and Mosimane, AW. 2000. Empowering communities to manage natural resources: where does the new power lie? Case studies from Namibia. *Research Discussion Paper No. 40,* p32. Windhoek: Directorate of Environmental Affairs; Steiner, A. and Rihoy, E. 1995. The commons without the tragedy? Strategies for community-based natural resource management in Southern Africa. A review of lessons and experiences from natural resource management programmes in Botswana, Namibia, Zambia and Zimbabwe. In Rihoy, E. (ed.), *The commons without the tragedy? Strategies for community-based natural resource management in Southern Africa. Proceedings of the Regional Natural Resource Management Programme Annual Conference.* Lilongwe: SADC Wildlife Technical Coordination Unit.

9. Definitions and conceptual framework of topical issues

This section contains a review of literature on various terms which feature frequently in the writing of this thesis. These concepts also form part of the title of the thesis or inform the answers to the research questions; hence it is important that a theoretical and definitional foundation be given.

9.1 Water wars

"Water war" is a colloquial term often used to describe conflict motivated around the use or possession of water resources within a state's boundary or between two or more states. The term is often used by media, but rarely by academics or the security community, who tend to talk about "water-related conflicts" rather than "wars". A wide range of conflicts over water appears throughout history, though very rarely are these "wars" over water. Instead, access to water has been a source of tensions, a tool during conflicts that start for other reasons, and a target during wars.[110]

> Demands on water and land in Namibia are increasing steadily as the population and the economy grow. Although only a few households can survive on subsistence agriculture alone, access to agricultural land remains central to livelihood strategies particularly in the non-freehold or communal areas of Namibia. The importance of agriculture is not only likely to remain, but will increase to the extent that population growth continues to exceed the creation of employment opportunities.[111]

The only reported example of an actual inter-state conflict over water is the one between the Summerian states of Lagash and Umma, taking place between 2500 and 2350 B.C.[112]

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[110] Gleick, P.H. 1993. 'Water and conflict: Fresh water resources and international security.' *International Security.* 18 (1):79-112. p.79.
[111] Werner W. 2009. 'Controlling access to water and land: De jure and de facto powers of Water Point Committees.' CuveWaters Papers, No. 5, p.1.
[112] Rasler, Karen A. and Thompson W. R. 2006. 'Contested Territory, Strategic Rivalries, and Conflict Escalation.' *International Studies Quarterly*. 50 (1): 145-168. p.145-168.

Water stress can lead to conflicts at local and regional levels.[113] Increasingly, conflicts over water are occurring at a sub national level rather than between nations. A comprehensive list of water-related conflicts going back 5,000 years can be found in the "Water Conflict Chronology".[114] A more-regularly updated version can be found online at Water Conflict Chronology.

9.2 Hydropolitics

This thesis departs from conventional definitions of hydropolitics which are biased in favour of international river basins where conflict is high.[115] In this thesis hydropolitics has a different shape; it is a study of the authoritative allocation of values in society with respect to water.[116] Emerging from this are two key elements -- scale and range. In this regard, the new definition of hydropolitics incorporates all levels in society where values are allocated to water in an authoritative manner. Similarly, the complex and interconnected nature of water issues is reflected as the element of range.

The thesis provides an illustration of hydropolitics in rural water supply in Namibia. This hydropolitics at local level is illustrated by the point that one of the traditional responsibilities of the State has been providing for the welfare of its population. Population increases, internal migration and the environment have placed an increasingly significant burden on the State to meet its obligation of water accessibility. In rural water supply this burden is even greater for the capital resources

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[113] Wolf, AT. "Water and Human Security." Journal of Contemporary Water Research and Education. 118 (1): 29 - 36, p.29.

[114] Gleick, P.H. 2009. The World's Water 2008-2009. Washington, D.C: Island Press.

[115] Elhance, A.P. 1999. Hydro-politics in the 3rd World: Conflict and Cooperation in International River Basins. Washington, D.C.: United States Institute of Peace Press, p. 123-154.

[116] Turton A. and Henwood R. (eds). *Hydropolitics in the developing world: A Southern African perspective.* Pretoria: African Water Issues Research Unit.

necessary for such infrastructure and the technological know-how have been limited. The payments needed for water allocation and maintenance of infrastructure have proved to be a huge burden on the communities who once depended on donor funds, often rendering them incapable of meeting their water needs.

As seen in the following chapters, in some locales, this has galvanised the communities affected and served as a catalyst to grassroots organisations resisting a new assault on, literally, their existence. This is the hydropolitics analysed in this study. The causes of the hydropolitics include conflicts regarding water resource management, provision of basic infrastructure and the need to pay for rural water provision. This thesis thus explores the possible consequences of such politics for both the rural communities and the nation at large.

Linking up hydropolitics and legal pluralism, this thesis should be understood from the angle that, recognition of legal pluralism under a neo-liberal context ought to lead us to propose the possibility for the traditional governance structures organised into and recognised as rural and native communities to take part in decision-making about the use and regulation of resources found in their territories. If liberalisation means denial of the State's central role, why not imagine that, under this new arrangement, the State should recognise the autonomy of rural communities to manage their resources as well,[117] especially taking into account that they represent a societal sector requiring special incentives. To this end, legal engineering must recognise indigenous rights to water use, not only to consolidate democracy and equality, but also to achieve social and economic policies grounded in equity.

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[117] Guevara-Gil & Vera-Dávila, 2002. 'Water legislation and indigenous water management in Peru.' Paper presented at the public meeting: *Water Law and Indigenous Rights –WALIR Towards recognition of indigenous water rights and management rules in national legislation.* (7 March 2002) on the occasion of the International WALIR Seminar, 4-8 march 2002, Wageningen, The Netherlands. p.48.

9.3 Decentralisation and Polycentrism

Water management has passed from a mixed system of metro management and riparian rights to a wholly publicly managed system at the district and local Municipality level. The interface between customary institutions and formal institutions is not well known. This means that the water law put out by national government only corresponds unevenly to the political dynamics at play at the local level. A polycentric approach has been encouraged as a viable option.

Polycentrism is different from pluralism and decentralisation. Polycentrism is the principle of organisation of a region around several political, social or financial centers. A county is said to be polycentric if its population is distributed almost evenly among several centres in different parts of the county. The theory of polycentrism was coined by Palmiro Togliati and was understood as characterisation of working conditions of communist parties in comparison between different countries after the de-Stalinisation in the former Soviet Union 1956. Later the term polycentrism was extended and used for a system with several centres, as *unity in diversity*.

The lack of water supply is a primary constraint to development and poverty alleviation in Namibia.[118] In addition, sufficient, safe, physically accessible and affordable water for personal and domestic use has become a nationally and internationally recognised human right.[119] It is one of the Millennium Development Goals to halve the number of people who are unable to access or afford safe drinking water. In order to achieve this vision, decisions must be made about allocation

[118] Republic of Namibia. 2000b. Namibia water resource management review. Windhoek: Ministry of Agriculture, Water and Rural Development – Directorate of Rural Water Supply.
[119] Republic of Namibia. 2000b. ibid.

mechanisms and conservation of water which are compatible with societal objectives such as economic efficiency, sustainability and the equity imperative.[120]

> Calls for new paradigms in water resource management have emerged from a broad range of commentators over the past decade. These calls arose as it became increasingly clear that the pressing problems in water resource management have to be tackled from an integrated polycentric perspective, taking into account interdependent economic, societal, environmental, institutional and technological factors. Adhering to the calls, Namibia designed polycentric water management approaches, with the objective of maximising economic and social welfare in an equitable manner and without compromising the sustainability of vital rural ecosystems. Understanding the barriers to integrated and adaptive management requires a critical reflection on conventional modes of governance. In this regard, Namibia has achieved great strides by shifting from monocentric public water management systems towards strongly community - based polycentric management.[121]

In reaction to ongoing challenges in natural resource governance, Andersson and Ostrom[122] propose a polycentric view, which considers the relationships among multiple authorities with overlapping jurisdictions. Each unit exercises independence to establish, change and enforce rules within a circumscribed domain of authority for a specified geographical area.[123] Polycentric systems give users some but not sole authority to make and enforce rules in order to make efficient use of the advantages of decentralised management without ignoring its limitations. Other governing authorities such as governmental ones can compensate limitations.[124]

From a social economic perspective it seems that the main pillars of the reform are polycentrism and cost recovery.[125] Both are meant to increase the natural resource management efficiency. Polycentrism faces the major challenge of building on existing structures without replicating historic injustices. It allows, however, for the State to mitigate any negative impact on livelihoods. While the reform is in the process of full implementation, the government is discussing various options of how

[120] Bock, B. and Kirk, M. 2006. 'Rural water pricing systems in Namibia: Effects on water use and livelihoods'. *Quarterly Journal of International Agriculture* 45(4): 339-360.
[121] Falk, Bock, Kirk, 2009, *supra*, p 115.
[122] Ostrom, E. 2005. *Understanding institutional diversity*. Princeton: Princeton University Press.
[123] Cleaver, F. 2000. Moral ecological rationality, institutions and the management of common property resources. *Development and Change* 31(2): 361-383; Ostrom, E. 2005, *supra*.
[124] Falk, Kirk, Bock 2009, supra, p.116.
[125] Ibid.

the poor can be guaranteed access to water without diminishing their development opportunities.[126] According to Falk, Bock and Kirk,[127] the Namibian experience demonstrates the difficulties in developing effective incentive mechanisms without undermining major social objectives. Their analyses show that, "compared to naive monocentric governance approaches, polycentrism offers much broader opportunities for achieving multidimensional objectives". They note however that, a reform does not become successful simply because it is polycentric. More about this discussion is found in Chapters 3 and 4.

9.4 First and second order scarcity

Although there is no scientific proof that there is water scarcity in Namibia, second order scarcity is evident. There is a difference between actual lack of water and the socio-political construction of water scarcity. Chileshe Trottier and Wilson[128] say that the concept of second order water scarcity distinguishes between an actual physical lack of water (which is a first order scarcity), and social-political construction of water scarcity (second order water scarcity). Therefore, second order water scarcity ranges at a scalar level from macroeconomic and institutional underdevelopment to micro-politics. Just like in Zambia where Chileshe Trottier and Wilson did their studies, the centrifugal dynamics of institutional control of water in Namibia can be viewed as a confounding variable to the government's ability to ensure a human right to water.

The human right to water, though alluded to in the 2004 Act, is not outwardly advocated for in government publications and national discourse. Falk, Kirk and

[126] Ibid.
[127] Ibid.
[128] Chileshe Trottier and Wilson. 2005, *supra*, p.8-10.

Bock[129] conclude that the rural water sector in Namibia is heavily dependent on donor aid, while the urban water sector is in the process of commercialisation. The programme of the commercialisation of urban water is simultaneously being implemented in various African countries including Namibia. The idea of community participation in the management of resources is part of the economically viable development strategy for Namibia.

> The political importance attached to meaningful participation as a key component of democratic governance is reflected in Vision 2030. It states that many social and environmental issues are better managed at the local level, 'where authority, proprietorship/tenure, rights and responsibilities are devolved to appropriate local institutions and organisations' including aspects of water point and rangeland management, wildlife and forest management.[130]

Very little is known about the strategies local actors in Southern Africa deploy and about the competitions, the co-operations and conflicts which they are entering concerning water. The interface between customary institutions and formal institutions is not well known. This means that the water law put out by the national government rarely corresponds to the law and regulations implemented on the ground, locally. This means that many institutions which do not appear in any government document concerning water management actually play a crucial role in determining water access, water use and water allocation.

These competitions have generated second order water scarcity in Southern Africa, i.e. a lack of social and political adaptive capacity to manage water successfully to the satisfaction of all stakeholders. The paucity of knowledge concerning this web of power relations, within which control over water is embedded, has prevented social actors involved in water development from improving their strategies in order to reduce this second order water scarcity. Instead water development projects have kept

[129] Falk, Bock and Kirk. 2009, *supra*.
[130] Werner 2009, *supra* p.8.

focusing on first order water scarcity, i.e. the lack of the resource itself. Most often, these developments have had a limited effect because of the rampant second order scarcity.

In Zambia, fieldwork has demonstrated that in the majority of cases, the relative abundance of water precludes any development of tradable water rights via market mechanisms. However, even given Zambia's abundance of water, there is rampant second order scarcity. As shall be explained in the preceding chapters, a micro scale example of second order scarcity can be found in Mutompu, a village in Mbunza community in Kavango Region with a population of about 500 households. Therefore the relations of cooperation identified in the following chapters can be perceived as an asset that can be built on in order to develop successful water management. The relations of competition can be perceived as crucial interactions that can be changed into occasions of cooperation.

Chapter 3

Methodology

1. Introduction

It is important to notice that the mixed construction of the study's theoretical framework, described in the preceding chapter, requires a methodology that, in turn, borrows from various research methodologies and paradigms. Therefore, having explored and analysed the theoretical framework of this study in Chapter 2 above, this chapter will now show a methodology which was adopted in the research process and which suits the study. In this light this chapter describes the research paradigm, theories and methodologies used to carry out analyses of discourses in rural water supply. It is shown herein that the researcher employed multiple methodologies and adopted various theories in approaching or interpreting different types of data gathered. The technique of triangulation and interpretive and critical paradigms were employed in the analysis of data gathered from empirical data and desk research. The purpose of employing these techniques was to answer the research questions and address the problems stated in Chapter 1. This was done in the context of the theoretical background laid bare in Chapter 2.

Various scholars in different disciplines, especially those in education and social sciences, have come to the conclusion that "to minimize the risk of being biased is to

follow the principle of triangulation".[131] These scholars go further to argue that being confined to one research methodology or one particular data collection method classifies research into the category of authoritative ideological past research approaches.[132] Thus, various researchers advocate the selection and implementation of whatever method suits the research question or problem.[133] In this light, this researcher chose different methods for different purposes, making this research project a mixed one in terms of data collection and analysis.

2. Research paradigm

According to Burrell and Morgan, "to be located in a particular paradigm is to view the world in a particular way".[134] In order to proceed with research, the researcher debated whether to follow qualitative or quantitative research. After a review of literature on research methodology, it was deemed appropriate to utilise both qualitative and quantitative research. This position developed as the literature proved that there is no research which is purely qualitative or quantitative. The data giving content to this thesis came out of both numerical data and verbal input, and it was realised that data contained in words has numerical values. For example the data regarding who owns water was derived from both the number of people who gave explicit answers and interpretations of words given in answer to the same question,

[131] Wodak, R. and Meyer, M. (eds.) 2001. *Methods of critical discourse analysis*. London: SAGE publications Limited, p.65, see also Benwell, B. and Stokoe, E. 2006. *Discourse and identity*. Edinburgh: Edinburgh University Press.
Bloor, M. 1978. 'On the analysis of observational data: A discussion of the worth and uses of inductive techniques and respondent validation.' *Sociology*, 12(2):542-52.
[132] Hende, MO. 2009. ELT Course Descriptions in Tertiary Education: A Critical-interpretative Investigation. Unpublished PhD thesis in Education. University of Exeter.
[133] Meyer, M. (2001). Between theory, method and politics: Positioning of the approaches to CDA. In Wodak, R.and Meyer, M. (eds.) 2001. *Methods of critical discourse analysis*. London: SAGE publications Limited, pp.14-31; Tashakkori, A. and Teddlie, C. 1998. *Mixed methodology: Combining qualitative and quantitative approaches*. London: Sage Publications.

134 Burrell, G. and Morgan, G. 1979. *Sociological paradigms and organisational analysis: elements of the sociology of corporate life*. London: Heinemann. p.24.

especially after the researcher had sorted out the answers in categories. Trochim[135] has demonstrated that all qualitative data can be coded quantitatively, and that all quantitative data is based on qualitative judgments. This position is explained in more detail below.

3. Qualitative or Quantitative Research?

3.1 The discussion

Authors on research methodology differ greatly on what is the best method to follow when and in what circumstances in the field of research. Quantitative researcher Fred Kerlinger believes that "There's no such thing as qualitative data. Everything is either 1 or 0". To this another researcher, Campbell, asserts "All research ultimately has a qualitative grounding".[136] This back and forth banter among qualitative and quantitative researchers is "essentially unproductive" according to Miles and Huberman. They and many other researchers agree that these two research methods need each other more often than not.[137] There is a general consensus that quantitative data involves numbers, whereas qualitative data involves words and that qualitative research is inductive and quantitative research is deductive. Some assert that in qualitative research, a hypothesis is not needed to begin research, and all quantitative research requires a hypothesis before research can begin.[138]

[135] Trochim, W. 2006. The Qualitative Debate. In *Social Science Methods*. Available at http://www.socialresearchmethods.net. Last Accessed 23 February 2009.
[136] Miles, M. and Huberman, M. 1994. *Qualitative Data Analysis*. Newbury Park, CA: Sage Publications, p. 40.
[137] Hoepfl ME. 1997. 'Choosing Qualitative Research: A Primer for Technology Education Researchers'. *Journal of Technology Education 9*(1):47-63.
[138] See Yin, RK. 1994. *Case Study Research, Design and Methods*. Thousand Oaks, CA: Sage Publications.

Some researchers believe that qualitative and quantitative methodologies cannot be combined, because the assumptions underlying each tradition are so vastly different. Other researchers think they can be used in combination only by alternating between methods: qualitative research is appropriate to answer certain kinds of questions in certain conditions and quantitative is right for others. And some researchers think that both qualitative and quantitative methods can be used simultaneously to answer a research question.

With regard to divergent ideas it should be noted that each approach to gathering or analysing data has its own shortcomings. Rather than discounting either approach for its drawbacks, though, this researcher noted that he should find the most effective ways to incorporate elements of both, to ensure that this study is as accurate and thorough as possible. This approach found support in Trochim's submission that all qualitative data can be coded quantitatively and that all quantitative data is based on qualitative judgments.[139] This blurs the distinction between quantitative and qualitative data which is necessary to maintain a superiority claim by those who advocate quantitative research.

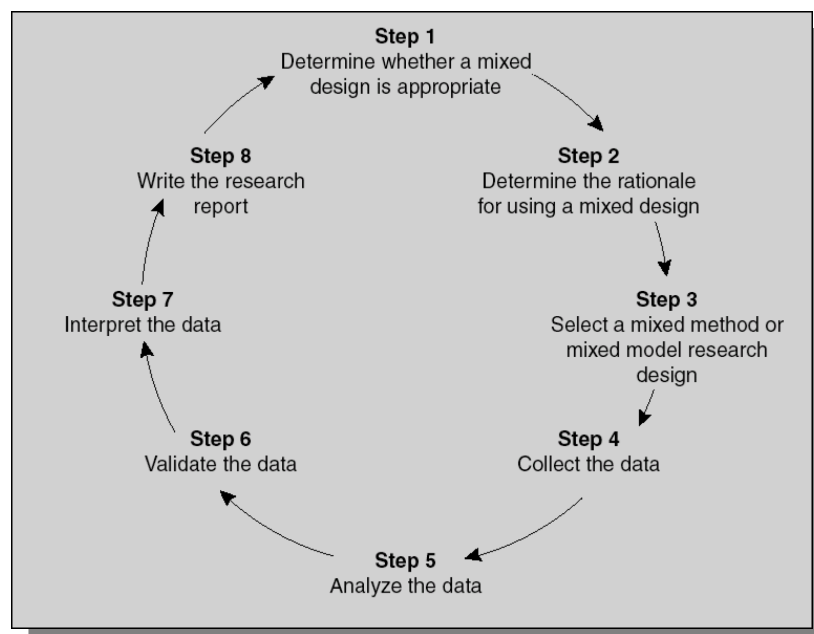
3.2 Position of the researcher

Although quantitative research is an effective research tool in scientific research, it is not superior to qualitative research insofar as we consider the requirements of legal research, because it cannot fully address the philosophical issues of ontology, epistemology, and ethics, which are inherent to anthropological legal research which is in parts of Chapter 5 below. Consequently, it can be said that the discussion on which research technique is superior is an example of a false dichotomy, since both

[139] Trochim, W. 2006. *Supra.*

are necessary for a holistic understanding of teaching and learning.[140] This means that a researcher is entitled to follow a "mixed-method" approach and this researcher believes that such an approach is more appropriate when studying such complex and dynamic phenomena as law and specifically rural water supply. Below are the stages generally followed in a mixed methods approach.

Figure 2: stages in mixed research approach



Source: Onwuegbuzie and Teddlie (2003)[141]

Although the stages are numbered, the order is not cast in stone. This researcher constantly moved between the stages and crossed over them as well. The mixed method approach that employs both quantitative and qualitative research casts a larger net, allowing for the collection of more and diverse data. This does not necessarily lead to an "anything goes" epistemology. As St.Pierre observed in quoting Foucault:

[140] Kevin D. McMahon, 2009. Quantitative Research is More Effective than Qualitative Research in the Studying of Science Teaching. Unpublished paper. On file with researcher.

[141] Onwuegbuzie, AJ. and Teddlie, C. 2003. 'A framework for analzing data in mixed methods research.' In Tashakkori, A. and C. Teddlie (eds.), *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage, pp.351-383. See also Johnson, RB. and Onwuegbuzie, AJ. 2003. 'Mixed Methods Research: A Research Paradigm Whose Time Has Come.' *Educational Researcher,* 33(7):14–26.

> I believe too much in truth not to suppose that there are different truths and different ways of speaking truth." The science I value acknowledges that there are different truths and that our task as scientists should be to produce different knowledge and produce knowledge differently in order to enlarge our understanding of those issues about which we care deeply.[142]

In water law, what is the ontological basis of a mixed-method approach? After all, quantitative researchers seek to "describe things as they are," while qualitative researchers seek to describe the individual or socially constructed universe. How can these ontologies be reconciled? This researcher believes reconciliation can only occur when researchers acknowledge the utter uniqueness of the subject being studied—in this case, persons and human institutions involved in rural water supply.

Therefore, quantitative research is not more effective than qualitative research in the studying of science education. Indeed, limiting legal research to a positivistic/scientific approach is philosophical reductionism. Data generated by both quantitative and qualitative research will enable all stakeholders in law making and policy making to make informed decisions.

Furthermore, using multiple approaches can capitalise on the strengths of each approach and offset their different weaknesses. A growing number of research and evaluation studies make use of mixed methods, that is, both quantitative and qualitative methods within a single study. Given that each of these approaches has its own strengths and limitations, combining them seems a good idea. It appears to offer a more comprehensive approach to finding answers to research questions, especially since many questions in open and distance learning are complex and cannot easily be answered using a single method.

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[142] St. Pierre, E. 2006. 'Scientifically Based Research in Education: Epistemology and Ethics.' *Adult Education Quarterly*. 56(4):239-266.

The role of the researcher also influenced the research paradigm which had to be followed. This researcher understood that if he takes a purely quantitative research approach, he is ideally an objective observer who neither participates in nor influences what is being studied. On the other side, the researcher saw that if he makes this research wholly qualitative, he can learn the most about a situation by participating and/or being immersed in it but would be crippled in quantitatively analysing data collected qualitatively. Overall therefore, the underlying assumptions of both methodologies guided data collection and analysis and it was considered reasonable to combine the two methods in this research study.

4. Population and sampling

The research was done in three different regions in Namibia: Kavango, Otjozondjupa and Ohangwena in three Phases respectively. The map below shows the thirteen regions of Namibia.

Figure 3: Regions of Namibia

Source: Namibia Nature Foundation. 2009.[143]

[143] Namibia Nature Foundation. 2009. Regions of Namibia. Available at www.nnf.org.na/SKEP/skep_pics/map_regions.jpg. Last Accessed, 02 November 2009.

The map below is a general indication of the areas of research.

Figure 4: Research Areas

Source: Klaus, D. 2009.[144]

[144] Dierks Klaus: 2009. Simplified Road map of Namibia. Available at www.klausdierks.com/.../table_of_contents.htm. last accessed 13 May 2009.

The areas shown were a random selection, but they turned out to have interesting contrasts and points of intersection as the following chapters indicate. Furthermore, case studies were explored with individuals and households, tracking livelihood activities, decision making, and trade offs of rural water rights, water resources management. and Purposive sampling was crucial to identify these. Case studies were also conducted to cover rural water management and the politics of resource use control in general. In particular management and use strategies were explored to illustrate decision making processes in respect to opportunities and constraints of legal pluralism and social change due to social adaptive capacity and the dynamism induced by second order scarcity of water.

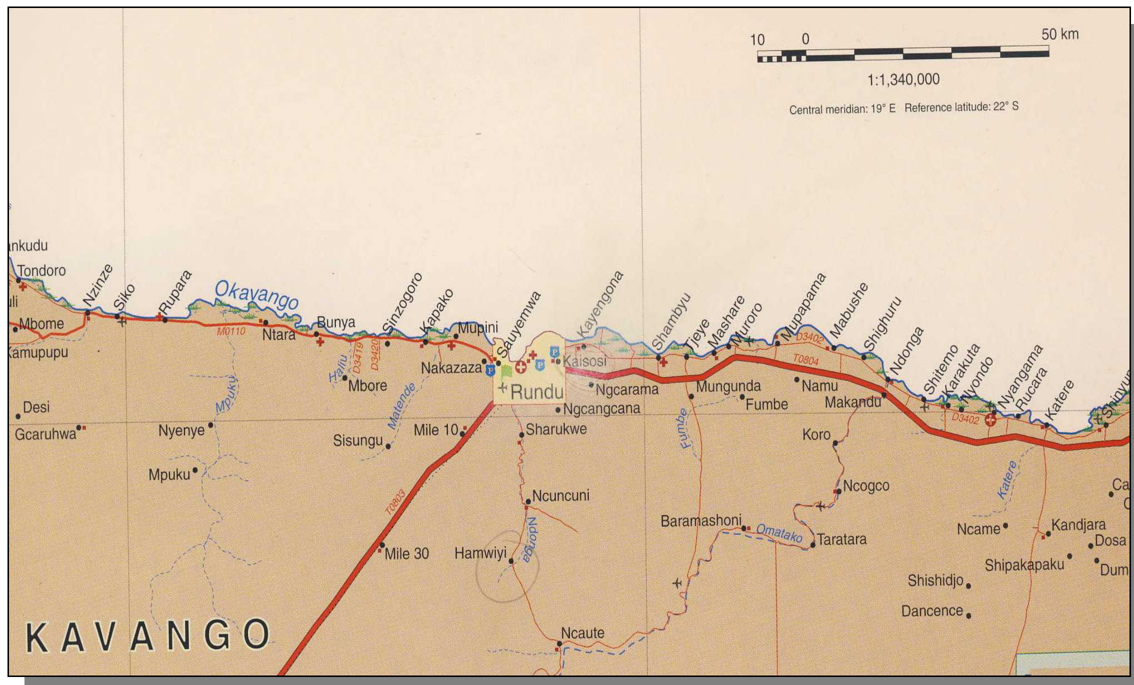
The table below compares the details of the three regions studied.

Table 1: Population details of studied regions

	Region	Capital	Population 2001	Area km²	Population density /km²
1.	Kavango Region	Rundu	202 694	48 463	4
2.	Ohangwena Region	Eenhana	228 384	10 703	21
3.	Otjozondjupa Region	Otjiwarongo	135 384	105 185	1.3

The choice of the regions was done through purposive sampling. Kavango Region was chosen because of the dominant use of boreholes and the fact that most of the areas in Kavango have full control of their water points; the government has completely divested itself of control over the water points except for intervention when there are major breakdowns. In addition to this there are certain communities which do not have boreholes or pipelines, and they completely depend on river water. The situation of these people is unique and cannot be compared to the other study regions where there is no river. The areas researched in Kavango are indicated on the map below.

Figure 5: Research areas in Kavango Region

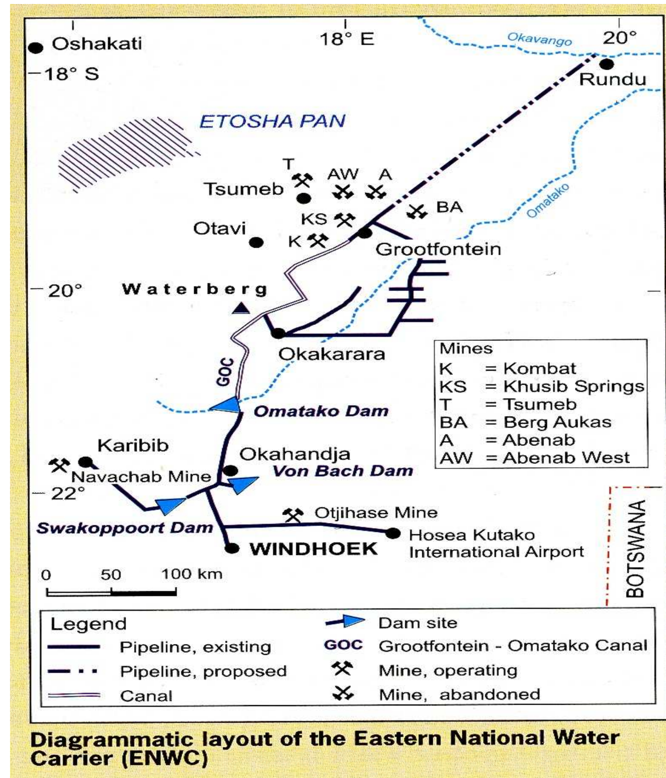


Source: Mendelsohn, et al. 2002. [145]

Otjozondjupa was chosen for its use of piped water and the conflicts which exist between government entities and rural communities in rural water supply. The researcher thus had to follow communities along the pipeline also known as the Eastern Water Carrier shown on the map below. The circling shows the area covered in the research in general.

[145] Mendelsohn, J. Jarvis, A. Roberts, C. and Robertson, T. 2002. *Atlas of Namibia. A portrait of the land and its people*. Cape Town: John Phillip Publishers, p.21.

Figure 6: Research areas in Otjozondjupa Region



Source: Christelis and Struckmeier (2001)[146]

Ohangwena was chosen for the reason that there are new and old pipelines, and the people are not paying the government for water yet, a striking difference from the situations in the other regions studied. Furthermore, Ohangwena has some areas where there are neither boreholes nor pipelines. The area along Onambutu is one such area where the government is busy constructing a pipeline across the area, opening new water points for the people, and Water Committees are still in the process of being created. Before this, Onambutu residents used to get water from hand dug wells and *iishana,* which are open water ponds where rainwater collects. The map below shows Ohangwena Region and in general terms, the areas visited.

[146] Source: Christelis G, and Struckmeier W. (eds) 2001. *Groundwater in Namibia. An explanation to the Hydrogeological map.* Winghoek. Ministry of Agriculture Water and Rural Development. Ministry of Mines and Energy, p.70.

Figure 7: Research areas in Ohangwena Region

Source: Mendelsohn, et al. 2002. [147]

5. Instrumentation

Primary data collection was conducted through both desk based research and interviews with stakeholders involved in rural water supply in the regions, as well as NamWater and government officials in the Ministry of Agriculture, Water and Rural Development. All respondents in the communities were randomly selected, but where specific questions arose, specific officials in the regions were sought after. In Windhoek only officials relevant to the research were selected so as to have a reliable source of information. Field research was best achieved by use of questionnaires and purposive interviews.

5.1 Questionnaires

The questionnaires were both structured and semi-structured i.e. having a structured sequence and focuses predetermined by the researcher and including both open ended and multiple choice questions. Generally, questionnaires are printed forms for data

[147] Mendelsohn, J. Jarvis, A. Roberts, C. and Robertson, T. 2002. *Atlas of Namibia. A portrait of the land and its people*. Cape Town: John Phillip Publishers, p.21.

collection, which include questions or statements to which the research participant is expected to respond, often anonymously. According to Ould Hende,[148] questionnaires are mostly used to collect data that are not easily observed, such as attitudes, beliefs and views. The use of questionnaires for this study had many advantages. For example, in addition to allowing the participants to express explicitly their attitudes towards rural water supply, they also allowed for the gathering of information about the personal particulars of the respondent. In addition, this research proved that "questionnaires are useful tools for collecting data from a large number of respondents".[149]

5.2 Interviews

A total of 90 interviews were conducted for this study. Of these 90 interviews, 81 were conducted in the regions and 9 in Windhoek. Of the 81 interviews in the regions, 6 were group interviews. These statistics are tabulated in Chapter 5. Semi-structured interviews were considered more feasible and effective since they allowed respondents the time and scope to talk about their opinions on a particular subject, and the interviewer to probe areas suggested by the respondents' answers, picking-up information that had either not occurred to the interviewer or information which the interviewer had no prior knowledge of. In this light, the researcher filled in answers to the questionnaires as he interviewed the respondents, rather than giving respondents the questionnaires to fill in. Additional information to follow-up questions was recorded on a separate sheet with the name of the same respondent recorded against it.

[148] Hende, 2002. supra. See also and Seliger, W. H. and Shohamy, E. 1989. *Second language research methods*. Oxford: Oxford University Press.
[149] Wilkinson, D. (ed.) 2000. *The researcher's Toolkit*. London: Routledge Falmer, p.42.

Traditionally, an interview is a “two-person conversation initiated by the interviewer for the specific purpose of obtaining research relevant information”.[150] Basically, there are three types of such an interview: a fully structured interview in which the questions and their order are set in advance, a semi-structured interview in which questions are pre-determined but can be modified according to the interviewer’s perceptions of appropriacy, and unstructured interview, which is an informal interview where the interviewer lets the conversation flow freely over a major interest or concern.[151] This researcher found it appropriate to use a mixture of these approaches, where “some semi-structured questions are asked followed by the exploration of general themes related to these questions”.[152] Hence some answers had to be recorded on separate sheets from the questionnaires, especially answers to follow up questions.

Key informant interviews were held in all the studied regions. The term “key informant” refers to anyone who can provide detailed information and opinions based on his or her knowledge of a particular issue.[153] These informant interviews were based on a purposive sample, including government officials in the relevant ministries and directorates, those working for water committees, water point user associations and local user associations, and others not working for the abovementioned; those close to government officials, including Traditional Authorities and employees of non governmental organisations involved in rural water supply, and those in the employ of the government in Regional and central government offices.

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[150] Radnor, H. 2002. *Researching your professional practice: Doing interpretive research.* Buckingham: Open University Press, p.59.
[151] Robson, C. 2002. *Real world research*. 2nd Ed. Oxford: Blackwell.
[152] Wilkinson, 2000. *supra* p.47.
[153] University of Illinois, Extension Service-Office of Program Planning and Assessment. 2004. *Needs Assessment Techniques Using Key Informant Interviews*. University of Illinois Chicago, p.3.

Therefore, the interviews in this study were a resource not a topic, a means not an end. In addition, the study used semi-structured interviews, because as Raja submits, they not only provide in-depth information but they also help the researcher stay alert to the focus of the study and at the same time be open minded to encounter spontaneous and new ideas that may emerge during the interview sessions.[154] Thus, in this study, the use of interviews as a complement to document analysis was based on similar uses by other discourse analytic studies.

6. Procedure and time frame

The research was done over 12 months in three phases in three different regions. The first phase was done in Kavango Region in Mbunza Community, specifically in Mutompu, Epingiro 1 and 2, Kapako and Sivara Villages. The second phase covered some areas in Otjozondjupa and specifically, the researcher visited villages around Okakarara, Okondjatu Settlement Area and villages around it, Okamatapati and farming plots around it, and the last place to be visited in Otjozondjupa was the Otjituuo Settlement Area. The third phase of the research was done in Ohangwena Region, and specifically the researcher visited villages around Eenhana, Omhedi Village and Engela.

Before conducting the research in the regions, government officials in relevant ministries were interviewed, and data in government possession were gathered in the process desk research. In the communities, the first ports of call were the Traditional Authorities, who were instructive regarding community set up structures and institutions at play in the water sector, highlighting possible useful observations to be

[154] Bt Raja, SNRH. 2006. *An ethnographic study of classroom discourse and its relationship with an English as a second language (ESL) student teacher's reasoning: A Malaysian context.* Unpublished PhD study. Exeter: University of Exeter.

made in the community. The data collected were retested against government position. This called for a close analytical assessment of the findings and weighing of the positions, coupled by desk research done parallel to field research, which was informative in drawing conclusions.

7. Data Analysis

The philosophy of pragmatism says that researchers should use the approach or mixture of approaches that works the best in a real world situation. In short, what works is what is useful and should be used, regardless of any philosophical assumptions, paradigmatic assumptions, or any other type of assumptions. In this light, in order to avoid bias in the process of data interpretation, this researcher used the method of triangulation which falls within the interpretative and critical paradigm. According to Golafshani, triangulation is the combination of more than one research tool in the study of the same phenomenon.[155] This researcher followed the methodology of theoretical triangulation, because it allowed for research questions to be centred around rural water supply in the light of paradigms that bind the analytical frameworks together, which are the critical and interpretative research paradigms.[156] The discussion of the above paradigms that follows is based on the assumption that a research paradigm involves assumptions about ontology, epistemology and methodology.[157]

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[155] Golafshani, N. 2003. *Understanding reliability and validity in qualitative research*. Available at http://www.nova.edu/. Last accessed 11 February 2009.

[156] Hende, 2009, *supra*, p.61.

[157] Ontology means what can be known about the world; epistemology means relationship between the knower and the known and methodology connotes how the knower goes about the task of knowing. See Hende, 2009, *supra* citing Lincoln,YS. and Guba, EG. 1985. *Naturalistic Inquiry*. Canada: Beverly Hills; Lincoln, YS. and Guba, EG. 2000. 'Paradigmatic controversies, contradictions, and emerging confluences.' In Denzin, NK. and Lincoln, YS. (eds.) *Handbook of Qualitative Research*. 2nd ed. Thousand Oaks, CA: Sage, pp.163-188.

Yin[158] states that in research every case study should start with a general analytical strategy. These general analytical strategies with regard to case studies provide the researcher with a system by which he or she can set priorities for what it is they need to analyse and why. These priorities were set by the researcher in this study, and it was noted, as Herriott and Firestone[159] stated in Yin, "The evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust". [160] The way in which the data are analysed is very important for any research study. This researcher recognised that empirical combined with data from desk research and the triangulation of these sources of data would add to the validity of all data.

Data analysis called for different approaches depending on the intended outcome. A fully mixed approach is evidenced in Chapter 5 on the gathering and analysis of the empirical data. One example is on the ownership of water, whereby the researcher explored (qualitative objective) who rural residents in studied areas regarded as the owners of water. Semi-structured interviews were then conducted (qualitative data collection) asking them who owns water, and then the results were quantified by counting the number of times each type of response occurred (quantitative data analysis); the researcher also reported the responses as percentages and examined the relationships between sets of categories or variables through the use of contingency tables and pie charts. For the purpose of Chapter 5, the positions of the 9 people interviewed in Windhoek were excluded, for they could have distorted the reality in the 3 studied regions. Hence a total of 81 interviews were conducted. Data collected from people in Windhoek were, however, useful in explaining the basis of some of the

[158] Yin, RK. 1994. *Case Study Research, Design and Methods*. Thousand Oaks, CA: Sage Publications.
[159] Firestone (1983).
[160] Yin, 1994, supra, p.45.

opinions collected in the regions. This is well illustrated in Chapter 5 where the views of the people are presented.

Case studies were also considered during the research and in analysing them in the context of all other available data, the researcher followed the proposition of Yin[161] who says that, before data can actually be analysed, a researcher using case studies can choose from *two general analytical strategies*:

- *Relying on theoretical propositions* is the most common.[162] The result of this is the collection of data based on research questions taken from previous studies, here the findings are compared with those of previous studies (or those used in the frame of reference).
- *Developing a case description* can be used as a strategy as well, according to Yin, especially when little previous research has been done.

Both analytical methods were used in this research study and analysis of data. Also in the process of analysing data two main forms of analysis were used, firstly within-case analysis, where empirical data was compared to theory or desk researched data. This method was used because data generated from interviews did not stand on its own. The perceptions of the people had to be understood in the context of other researched data borrowing from some researchers who believe that understanding the functions and "the fundamental assumptions and aims of the community"[163] is more

[161] Ibid.
[162] Ibid, p.103-104.
[163] Bazerman, C. 1988. *Shaping written knowledge: The genre and activity of the experimental article in science*. Madison: University of Wisconsin Press, p.323.

important than describing its formal features. For this reason, Schryer[164] uses interviews, along with document collection and participant observation to investigate the record within the medical colleges and the attitudes of the clinicians and researchers towards it. And, as mentioned earlier, for the purpose of accounting for Bernstein's 'relations within', and 'relations to', Elliot[165] mixes desk data analysis and data from interviews.

Secondly, cross-case data analysis was used in this study, where data in one case was compared to data in the other cases. Rural water supply in general in the studied regions was compared, and specific case studies in all the three studied regions had to be compared as well. Therefore in order to come up with general conclusions from what was gathered from the three regions and from the desk research, the inductive strategy, as opposed to deductive strategy of analysis was used. Specifically this researcher embarked upon the research without an explicit conceptual framework. Lack of a hypothesis in legal researches evidences the usefulness of this strategy. The researcher hereof thus merely used the research questions outlined in Chapter 1 to guide the research. This explains why the interviews were semi- structured.

Once the data were generated, the researcher attempted to discover relationships or patterns by means of close scrutiny of the empirical data so gathered in the light of the available desk research data. The data were thus analysed and interpreted by means of inductive abstraction and generalisation. The eventual result expected was a more systematic explanation or even a conceptual framework or general understanding of what

[164] Schryer, CF. 1993. 'Records as a genre.' *Written communication*, 10(4):200-234.
[165] Elliot, LGN. 1997. *Media studies in higher education: A case study of the social construction and reception of the pedagogic discourse.* Unpublished PhD Thesis. London: Institute of Education, University of London.

is affecting rural water supply in general, and what recommendations can be developed out of the results of this research study.

8. Theoretical foundation of data analysis methods

The critical paradigm arose as a response to the inability of both the positivist and interpretative paradigms to address properly issues of social inequalities.[166] According to this paradigm, legal research is mostly critical enquiry aimed at informing judgments in order to improve legal and policy making. On this argument, reality is constituted of institutional and social structures that have been shaped over time by social, political, cultural, economic, ethnic, racial, and gender factors.[167] What drives the formation of the above structures are the constant conflicts of dominant and dominated groups.[168]

The epistemology associated with the critical paradigm is 'subjectivism'.[169] That is, critical research is influenced by the researcher and in turn value-laden. The researcher and the participants engage to reach an understanding that is used to transform the historically mediated structures of a group. The research methodology employed for achieving the above task has to cater for the dialectical nature of critical research. One way of doing this is action research, which is a common methodology that involves the researcher in the actual business of obtaining and producing data amenable to better understanding and change.[170] The practical engagement of this researcher in the regions under focus led to a situation whereby the researcher was

[166] Crotty, M. (ed.). 1998. *The foundation of social research: Meaning and perspective in the research process*. London: Sage Publications. Guba and Lincoln, 1989 *supra*.
[167] Hende, 2009, *supra*, p.62.
[168] Crotty, 1998, *supra*; Guba & Lincoln, 1989, *supra*.
[169] Crotty, 1998, *supra*.
[170] Lincoln and Guba, 2000 *supra*; Patton, MQ. 2002. *Qualitative research and evaluation methods*, 3rd ed. Thousand Oaks, CA: Sage; Smith, D. 1997. 'Phenomenology: Methodology and method.' In Higgs, J. (ed.), *Qualitative research: Discourse on methodologies.* Sydney: Hampden Press, pp.75-80.

himself nvolved in data collection and observation of some of the effects of rural water supply in studied communal areas.

9. Validity and reliability

"You can recognize truth by its beauty and simplicity," said Nobel Laureate, Richard Feynman.[171] It is this relationship between truth and beauty that many researchers are beginning to recognise. As this research embarked on a generally non researched topic in Namibia, the researcher had to be careful to gather as much accurate data as possible. The researcher noted what Frankael & Wallen[172] say, that investigating non-researched topics, in itself, does not make the study important, so the researcher had to make this research important by producing accurate conclusions out of data gathered from the studied regions.

In the context of the findings in this legal thesis, it is important therefore to bear in mind that all conclusions that are reached on the basis of collected data always involve legal induction and logical inference. Both desk researched and empirical data have inferences to be made from them. The question is whether the inferences that are drawn, and whether the conclusions that are reached, after considering both empirical and desk data are valid. As illuminated under the research paradigm and data analysis sub-topics above, the methodological criterion that applies in this case, and subject limits of this research, is inferential validity.

Eisner[173] states that research that helps us understand a situation that would otherwise be enigmatic or confusing should be considered good research. In fact, according to

[171] Augros, R. and Stanciu, G. 1984. *The New Story of Science.* Lake Bluff, Ill. Regnery Gateway, p.39.
[172] Fraenkel, JR. and Wallen, NE. 2000. *How to design and evaluate research in education.* Boston: McGraw-Hill.
[173]

Kvale,[174] in view of the two paradigms informing this research and (data analysis being interpretative and critical paradigm and their constituent elements), validity and reliability are not regarded as the relevant criteria upon which to base the credibility of research. According to Hande[175]

> Validity and reliability as essential criteria for research are more suitable to the positivist paradigm which assumes there is a stable, observable reality. In this paradigm, validity deals with whether we measure or observe what we think we measure or observe and reliability deals with the possibility of replicating studies.

Hande goes on to quote Lincoln & Guba[176] and Guba & Lincoln[177] who, for the reason in the quotation above, prefer to use the terms credibility, dependability and transferability as indicators of the trustworthiness of research results, especially qualitative research. Thus, Bloor defines credibility, which corresponds to the notion of validity, as follows:

> The truth of analyses, their validity, is constituted by establishing some sort of correspondence between analysts and collectivity members' views of the world…one can establish a correspondence between the sociologists' and the members' view of the members' social world by exploring the extent to which members recognize, give assent to, the judgments of the sociologist.[178]

Dependability of data in the words of Schwandt[179] is "the inquirer's responsibility for ensuring that the process of the inquiry was logical, traceable, and documented", the provision of a 'thick' description of the study, which is what the researcher felt were enough details for the specific chapters, was a means to this end. In most chapters below, a theoretical background to certain happenings is given against the fact being explored, and its cause and effect and conclusions are made.

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[174] Kvale, S. 1996. *The social construction of validity in Interviews*. Thousand Oaks, CA: Sage. Lincoln,YS. and Guba, EG. 1985. *Naturalistic Inquiry*. Canada: Beverly Hills.
[175] Hende, 2009, supra, p.74.
[176] Lincoln and Guba, 1985, *supra*.
[177] Guba and Lincoln, 1989, *supra*.
[178] Bloor, 1978, *supra* p.545 quoted by Hende, 2009, *supra*, p.74.
[179] Schwandt, TA. 2001. *Dictionary of qualitative inquiry*. Thousand Oaks, California: Sage Publications, p.258.

Transferability refers to "the inquirer's responsibility for providing readers with sufficient information on the case studied such that readers (can) establish the degree of similarity between the case studied and the case to which findings might be transferred".[180] The Chapters 4-7 provide what this researcher believes are enough details on his experiences, assumptions and biases vis-à-vis data.

Transferability is similar to generalisability, which is regarded as the extension of research findings and conclusions from a study conducted on a sample population to the population at large. This research was not aimed at coming up with generalisable conclusions. It is up to users of this thesis to see whether the data contained herein can be generalised in their own contexts. After all, legal or critical and interpretative researchers in general do not claim to have control over knowledge or to produce knowledge that is true for all contexts.

The above approach to data analysis explains that certain findings in all chapters in general are conclusions based on both desk and empirical research. Be that as it may, even if one were to accept that the data were sufficiently reliable, the possibility remains that the data may not provide adequate support for the conclusions based on them. There is, for example, a possibility that other interpretations of the same events may be advanced.[181] Thus an outsider may well be inclined to say that different conclusions held in Southern and Western Namibia had not been adequately refuted, especially considering that no such research up to the present has been done on Namibia.

[180] Ibid.
[181] Mouton, J and Marais, HC. 1988. *Basic concepts in the methodology of the social sciences*. Pretoria: HSRC Press, p.105.

10. Limitations and Practical Lessons

The limitations of the mixed research method used herein are somewhat few, but it is important to note that since the mixed approach uses more than one research method in one research exercise, it was difficult to comfortably oscillate between the two and apply them concurrently and mix them. Furthermore, a lot more time was spent in data analysis and interpretation, since the researcher had to carefully mix the methods and guard against compromising the validity of the outcome.

There were problems in data collection which included political sensitivity. Since 2009 is a year for general and presidential elections in Namibia, some responses given were politically oriented and had no relevance to the question posed. Similarly, a number of people refused to be interviewed, citing political reasons, fear of being quoted and being victimised later on. Some of these fears were however allayed by assurances of anonymity, and even though the outcome can inform law and policy making, the researcher reiterated the academic purpose of the research.

Many lessons were gleaned from the field research. Interviewing people requires a lot of patience. Instead of answering questions, some interviewees talk about the politics of their community, for example in Okondjatu where the conflict between the Traditional Authority of the Kambazembi Royal House and Paramount Chief Kuaima Riruako and his Herero Traditional Authority were constantly cited. In some regions some respondents found the opportunity to criticise the government on various issues irrelevant to the research. However some criticisms were very useful in that they showed the grievances people have regarding how the government is handling rural water supply. This happened especially in Kavango and Okamatapati in Otjozondjupa

region. These complaints illustrated the politics of water supply, as explained in Chapter 7 below.

Even after full introductions to the respondents, there were incorrect perceptions in all the regions in general that the research was being done for the government, and that after the research study was finished, something should be done to them by the government based on what they reported. However, research ethics were maintained, and the researcher attempted to be very patient with respondents.

11. Conclusion

It has been shown that in accordance with the theoretical framework of the study, the methodology chosen employed a number of different research paradigms and methods: on the one hand, the interpretative and critical paradigms, and on the other document analysis, semi-structured questionnaires and interviews. This mixed method study attempts to bring together methods from different paradigms. The methodological basis of such diversity was used to obtain the principle of triangulation, which is much recommended in qualitative research.[182]

Inductive reasoning was mainly used for qualitative data, whereas deductive reasoning was applied to quantitative data, although in this research project the two were not separable due to the mixing explained in the paragraph above. These methods have their strengths and weaknesses, some of which indeed could not be avoided. The validity of the results however was not compromised.

[182] Wodak, 2001, *supra.*

Chapter 4

The Ownership and Control of Namibia Waters in Historical Perspective

1. Introduction

This Chapter explores the theoretical, legislative and policy background to Namibian water law. It aims at answering the questions regarding ownership of water in Namibia and the background or rationalisation for the position of the statutes and policies. In order to do this the chapter traces Namibian water law from the Roman times through the colonial or occupation period to present day laws. This approach will attempt to achieve or enable a clear and straightforward trace of the development of Namibian water law. Further the chapter provides some highlights of how the development of the common law informs the current water law in Namibia.

2. Background to the development of Namibian water law

The history of Namibian water law can hardly be divorced from South African law for obvious historical ties between former South West Africa and South Africa. Challenges have faced the Namibian water sector since the South African administration. Now as Namibia changes laws and policies, often communities who are affected on the ground turn to their long standing practices and traditions in search of solutions.

The dualism or pluralism in water management has a long historical background, and there are complex challenges which emerge from this history. From a South African perspective, Zenani submits that the complexity of present challenges in terms of

water resource management, especially in Southern African countries, is such that neither the state nor the communities can succeed alone. They need to collaborate.[183]

> The management of water resources therefore should include various stakeholders according to their legislated responsibilities, interests and capacity. The above review of water related legislation shows this complexity and progression in the way people understand water resource management. It illustrates that that there is an attempt to progressively integrate public participation and accountability in water management issues. [184]

In this regard, Rowlston et al. emphasise that in South Africa, although there are several water related laws, the cornerstone all these laws refer to is the Constitution.[185] In Namibia the there is no express provision regarding water supply. The right to water or access to adequate water is provided for under the Constitution.

A scrutiny of Namibian water law shows that the current regime of natural resources and in particular water resources in Namibia is befuddled in internal conflicts of laws and conflictual or overlapping water management structures. As Chapter 6 will show, the laws which exist in traditional communities, to a great extent, are at variance if not describable as 'in contradiction' to the common law and statutes passed by the State. This variance has its roots in history which shows how natural resource or water ownership and management was changed from time to time in different areas across the territory. This chapter will consider the historical development of the ownership of water resources on communal land. This history will help in showing how water management has been shaped by the laws and community participation or management of water resource management.

[183] Zenani, V and Mistri, A. 2005. *Desktop study on cultural and religious uses of water in South Africa; using regional case studies:* Unpublished Report. Department of Water Affairs and Forestry: Unit Stakeholder Empowerment. p11.
[184] ibid
[185] Rowlston, B, Barta, B and Mokonyane, J. 2000, Implementing New Water Law: A South African Experience, Paper presented at the Xth IWRA World Water Congress, Melbourne. Available at: http://www.watermagazine.com/secure/jc/0187.htm. Last accessed 6 April 2009.

3. Roman Water Law

Namibian law at the moment is pluralistic, with Roman Dutch law as the major foundation of the legal system. There are also elements of English common law which are applied in Namibian law. In addition to this, communities in rural areas mainly follow customary laws. It should also be noted that Namibian water law has been greatly affected or influenced by international law, especially international environmental law. These will be considered below in the light of the concept of ownership and control of water resources. First to be considered will be Roman law. This law informs certain principles which are found in Namibian water legislation and can be traced to from South African legislation. Therefore, they are considered in considerable detail.

3.1 Ownership and control of water under Roman Law

What is perhaps most significant and least understood about water is how the law has adapted its legal status, and the rights and responsibilities that go with it, to the changing needs of the community and its citizens as time and circumstances change.

> In Roman times 2000 years ago, the great jurist Justinian explained that the sea and the seashore were to be open to all. That is the principal source of one of the most important and most universally accepted of all legal precepts, the universal right of navigation on the open sea, and the right of all to the bounty of the sea as a source of food. So well rooted is this conception that most of us are hardly even conscious of the fact that Justinian's principle describes the rare idea of a community resource where private interests are able to benefit, but only subject to the broader needs of the community.[186]

From the very earliest origins of the Namibian legal system, going back more than two millennia to the principles of Roman law, water has always held a special place as a uniquely public resource. As in Namibia today, in the Roman Empire, water was relatively scarce and was regarded as a natural resource the same as the air and the

[186] Sax, JL. 2004. 'The History of Water Law in the United States.' *Water Resources Centre Archive News. 11(1):1-7.*

sea.[187] The ownership and control of water resources was determined by the form of water, for example whether it was surface water or ground water.

3.1.1 Surface water

Surface water was running and flowing water, lakes, ponds and dams. The Romans called running and flowing water *aqua profluens* or *flumina.* It did not matter whether the flow was perennial or not. Water in lakes, dams and ponds was regarded as *res publicae* according to the system of jurist Gaius and *res omnium communes* according to the system of jurist Marcianus.[188] Regarding ownership:

> Flowing and running water and water in lakes and ponds belonged to the State (*res publicae*)[189] or the community (*res omnium communes*)[190], for usage by the whole world (therefore not only the citizens of Rome), according to the principles of justice and equity in terms of the *usus publicus*, which right was conferred by the *ius* entitlements due to the influence of the status of the lower reaches. The distinction between different forms of water was an administrative aid to allocate entitlements and to control it. It had no influence on the legal status of the water.

According to Vos *aqua profluens* was divided into public and private streams.[191] *Aqua profluens* flowing in a public stream was *res communis*, in the sense that it belonged to the State which could grant certain rights in it, but the extent of Nunes however submits that state control was not clear.[192] A stream was public if it was both perennial and *aflumen*, i.e. sizeable, and not merely a *rivus*, i.e. small.

> It was perennial if it normally flowed throughout the year. If it was not perennial, it was a *torrens*. If it failed to flow perennially in any year, that did not make it a *torrens*. It merely had to be perennial as a rule. A *flumen* was distinguished from a *rivus* by its size and by the opinions of the inhabitants of the vicinity an elastic test.

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[187] Thompson, H. 2006. *Water Law: A Practical Approach to Resource Management and the Provision of Services*. Cape Town: Juta & Co. Ltd, p.17.
[188] Ibid. See also Tisdell, JG. 2003. 'Equity and Social Justice in Water Doctrines.' *Social Justice Research* 16(4):401-416.
[189] According to the system of Gius.
[190] According to the system of Marcianus.
[191] Vos, WJ. 1978. Principles of South African water law 6 (2d ed). Cape Town: Juta, p.1.
[192] Nunes (1975).

3.1.2 Underground water

According to Vos, underground water was private and could be appropriated by the landowner despite the fact that he cut off his neighbour's supply, *nisi animo vicino nocendi*.[193] Private water was, however, subject to the ancient customary rule which provided that if the water had *ex vetere more artque observatione,* flowed down on to lower land, and had been beneficially used, the status quo was to be maintained.

The cornerstones of the Roman property law were the doctrine *cuius est solum ma est usque ad coelum et ad infero*s, which implied that an owner of land was also the owner of everything above and beneath the surface of his or her land.[194] This also included groundwater, provided the water was not a source of flowing or running water. If the groundwater was such a source, it was *res omnium communes*. Water in springs was deemed to be surface water and was treated as such.[195]

4. Roman Dutch Water Law

4.1 Background

In the 15th and 16th Centuries the Roman law was "received" in the province which was later known as The Netherlands, although general and local customs held their ground. In 1652 the Dutch conquered the Cape (at the southern tip of Africa) and settled there. They imported the Roman Dutch Common law into Africa, and Roman-Dutch law, into which the Roman law was gradually absorbed after its revival in the 12th Century, formed the basis of the law to be applied in the Cape of Good Hope. One of the well known jurists in the history and development of Roman Dutch Law,

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[193] Vos, 1978, *supra*.
[194] Digesta 43.24.11.
[195] Thompson 2006, *supra*, p.19.

Voet, had three major propositions regarding the ownership and control of water. These three propositions may be summarised as follows:

- In 8.3.6 Voet says that an owner may do as he pleases with water rising on his own land unless there are prescriptive rights to the contrary.
- In 39.3.1 he says that if the water of a public stream is not in public use (as when the stream is not navigable) the water may be diverted; and the same applies to Heeren-wateringen and Ban-wateringen.
- In 43.12 he defines a public stream as one that flows perennially, and says that it belongs to the whole people.

Thompson says that the climatological differences between the Netherlands and the Cape of Good Hope and the lack of freely available water necessitated stricter government control than in the Netherlands to ensure peaceful common use of the water resources. This resulted in a larger number of streams being managed and subjected to control than in the Netherlands. Thompson goes on to say that:

> The measure of governmental control was tightened or relaxed according to the demand therefor, influenced by the scarcity of water in particular times and areas as well as the extent of competition and dispute amongst the different water users. Control was mainly exercised over surface water in riven and streams. The government did not intervene in the use of streams not subjected competitive use.
>
> - the period from 1655 to 1740, when a series of placcaets were issued to cont the quantitative and qualitative use of streams of the Table Bay Valley; and
> - the period from about 1760 to 1827, when the government granted entitlem; from streams under competitive use and resolved disputes between users o.; the use of the water.

4.2. Ownership of surface water

In *Relief v Loiiw*,[196] the court created a distinction between rivers and streams. The court decided that only rivers were *res publicae* and streams were not. The court did not give a reason for this distinction. Thompson comments:

[196] 1874 4 Buch 165.

> The words ". . . the stream may not in strict sense be capable of receiving the name of a river, which in the language of Institutes is said to be public . . . but it is said to be undoubtedly a rivulet or perennial stream" could have been an indication that there no intention to deviate from the Roman law criteria of *magnitudo*. Streams, it seems, were distinguished from rivers by their size.[197]

In the case of *Vermaak v Palmer*[198] the court laid down the grounds for the distinction between public and private water. Firstly a stream of water did not qualify as private water merely because it dried up during the heat of the day in the dry seasons. The Court intended to include even weak streams, which sometimes ceased to flow due to excessive heat. What remained as private water, were mere trickles of water which tended to dry up not only in the course thereof, but also even at the sources, perennial spring, how weak or how negligible its yield was, was a public stream even if it dried up in its course.

Secondly, the water of a non-perennial spring did not qualify as private water if it had been flowing down in a known and defined channel for the benefit of downstream owners for more than 30 years.[199] According to this decision it seems as though the streams qualifying as private water were extremely limited and really included only negligible trickles of water flowing from non-perennial springs. According to Thompson, this did not mean that these water resources were excluded from being classified as *res omm communes*.[200]

A distinction was also made between water rising on an owner's land and water flowing over the land. While the later was *res omnium communes* (to be used by riparian owners only), even if the stream was very weak, the former fell within the right of the landowner to divert the water and use it or let it be allowed to flow away

[197] Thompson, 2006, supra, p.37.
[198] 6 1876 Buch 25.
[199] Thompson, 2006, *supra*, p.38.
[200] Ibid.

from the property. From later decisions dissention appeared on whether such small streams (later named private streams) were subject to ownership or only to entitlements. The classification was probably done for the purpose of entitlements and not to grant ownership of the water.[201]

The Roman law principle of *existimatio circumcolentium* was used to determine whether a stream of water was public or private. In *Myburgh v Van der Bijl*,[202] it was held that the fact that the surrounding community had already used it commonly for some period of time was strong evidence against the approach that it was a private stream.

In *Southey v Southey*[203] it was decided that a dry river, the flow of which was only sometimes visible above the ground and which had a clearly defined channel and a constant subterranean flow which could be used for common purposes, was *res omnium communes*.[204] The terms 'public stream' or 'private water' were not used, as the Judge regarded all water *res omnium communes*. In *Hixock v de Wet*[205] it was held that if a public stream submerged and reappeared lower down, it remained a public stream.

4.3 Ownership of groundwater

In *Vermaak v Palmer*[206] a clear distinction was drawn between groundwater and surface water. In elucidating the distinction the Court said:

> But there is a wide difference between a stream of water flowing in a known and defined channel over the surface of the soil, and underground waters which rarely, if ever, have a known, constant and denned course, and which generally merely percolate through the earth in

[201] Ibid.
[202] 1882 1 SC 360.
[203] 1905 22 SC 650.
[204] At 674.
[205] 1871 1 Buch AC 58.
[206] 6 1876 Buch 25.

> no defined stream (nor is it at all clear that even under the Roman law the upper proprietor could divert a subterranean stream which in former times ha; flown down in a defined and known channel, rising to the surface of the land of the lower proprietor, where the upper proprietor has always been aware of the existence of the stream, and the lower proprietor has always had the enjoyment of the water).[207]

Thompson comments that[208] it seems that the Court, although obiter dictum, distinguished between a vein percolating through the strata of the earth, and denned underground streams of which the existence was known to the upstream owners, and in respect of which downstream owners had rights of long use. The last-mentioned rivers were not available for exclusive use like the unknown veins. According to the Court, for groundwater to be available for exclusive use, it had to flow in undefined channels in a way unknown to upstream owners and without being subject to long use.[209] This water was not the property of the upstream owner so that the ad column doctrine did not apply. In drawing this distinction, the Court paid no attention to the hydrological link between ground and surface water but separated the two forms of water with regard to the rights in respect thereof. Insofar as groundwater was concerned, the Court paid no further attention to it apart from questioning the clarity of the rule discussed by Voet, namely that an owner was free to intercept other owners' springs by digging a well on his or her own land.

5. South African and South West African Water Law

Roman law principles have been applied in South Africa since 1652, but the change in water usage, the increase in water demands, the location and capabilities of the water resources, whether the water is in abundance, scarce or in deficit, the technology available to use water, the competitiveness of the usage and the political and institutional arrangements applicable at a certain time have dictated how these

[207] Thompson, 2006 *supra*, p.40.
[208] Ibid.
[209] Ibid.

principles were applied during a specific period. Below is a consideration of the law as it was applied during both the German era and the era of South African domination in South West Africa. More emphasis will be placed on the developments which had a direct impact on South West African water law, though it is difficult to separate the two jurisdictions which were basically under one administrative regime.

5.1 Pre-colonial and colonial water law

Namibian water law cannot be discussed without having a look at the history thereof as derived from South Africa. The pre-colonial period was characterised by a variety of forms of subsistence. In the barren coastal Namib Desert there were some isolated communities living on the produce of the sea and the game and plant life that existed in the valleys of the few seasonal rivers in the area.[210] The United Nations Institute for Namibia[211] reported that because the central and southern parts of Namibia are drier, the people there did not keep cattle since the area was too dry for cattle and so they herded goats and sheep. Thus pre-colonial Namibia had the following forms of economic activity: hunting and gathering; cattle pasturing; small stock herding; and mixed stock and farming and even mining. These various forms of production did not exist in isolation from each other; indeed, there were elements of economic integration. It is no wonder Amoo says that Pre-colonial South West Africa cannot be described as *terra nullius*, i.e. devoid of any land tenure system.[212]

[210] Hunter, J. 2004. 'Who Should Own the Land? An Introduction'. In Hunter, J. (ed), *Who Should Own the Land? Analyses and Views on Land Question in Namibia and Southern Africa*.. Konrad Adenauer - Stiftung Namibia Institute for Democracy, p.1.
[211] United Nations Institute for Namibia. 1988. *Namibia: Perspectives for National Reconstruction and Development.* Lusaka: United Nations Institute for Namibia.
[212] Amoo, S.K. 2001. 'Towards Comprehensive Land Tenure Systems and Land Reform in Namibia.' *South African Journal of Human Rights* 17(1): 88.

5.2 Colonial and settler water law

It is often argued that the current problems of water supply in certain developing country cities cannot be understood without reference to the historical development starting from the colonial era.[213] As a reminder, Namibia became a protectorate of the German Empire, and impetus was thus driven by the economic interests of the colonial power towards the development of water schemes and infrastructure.[214] The Germans noted that the development of infrastructure and agriculture in German South West Africa could not be realised without a clear understanding and scientific information about water availability in the territory. Since the Germans were not certain about water availability in German South West Africa, in 1896 Dr T. Rehbock, a civil engineer, was commissioned to investigate the occurrence, availability and utilisation of water resources in the territory.[215] Thus the knowledge gap about water would be closed.

In February 1909 the foundation for an organisation to investigate and develop the water resources in Namibian was laid by a decision taken at an agricultural conference in Berlin, Germany.[216] Some of the plans laid down at this meeting did not materialise since administration in South West Africa changed in a few years under the South African military government, which had become de facto government in South West Africa after 1915. However there was amazing cooperation between the Germans and South Africans until the Versailles Treaty signing, which disposed German as a territory under the German expansionary and colonial empire.

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[213] Gandy, M. 2006. Water, Sanitation and the Modern City: Colonial and Post-colonial Experiences in Lagos and Mumbai. *Human Development Office Occasional Paper.* Geneva: United Nations Development Programme.
[214] McClune, J. 2004. *Water Privatisation in Namibia: Creating a new Apartheid?* Windhoek: Labour Resource and Research Institute (LaRRI), p.47.
[215] Ibid.
[216] Ibid.

During the occupation of South West Africa by South Africa, water management decisions were taken locally, and the sustainability of water resources depended on how local communities were managing the resource. The developments in South Africa, especially decisions made by South African courts and enactments passed by South Africa, shaped the current water law of Namibia. Regarding the statutes, Rowlston, Barta and Mokonyane[217] state that:

> Historically, water law in South Africa evolved according to the changes set in motion by the social, economic and political developments as they took place on the sub-continent. The evolution of South African water law can be traced back to the Dutch settlers who established a permanent colony at the Cape of Good Hope in 1652 after which, for the next 160 years or so, the colony was ruled more or less directly from the Netherlands. All land was held in freehold, and the State had ownership of all water, and absolute control over its use, under the Roman-Dutch law principle of *dominus fluminus*. In 1814 the Cape became a British crown colony. The State played only a limited role in water resources development, which was dominated by private agrarian developers primarily concentrating on irrigation advancements. Village and town authorities were fully responsible for the water supply and sanitation needs of local inhabitants.

Following the creation of the Union of South Africa in 1910 the first nationally-applicable water legislation - the Irrigation and Conservation of Waters Act - was passed in 1912. This Act, with some amendments, became the principal piece of water legislation in South West Africa and regulated water resource development until 1956, when a new Act to be discussed in detail below was passed. Under the 1912 Water Act State involvement in water resource management was largely limited to irrigation-related waterworks.[218]

5.3 Water law under the 1912 Act

South Africa became a union in 1910 bringing together the Zuid-Afrikaansche Republic and the former Republic of the Orange Free State. The passage of the 1912

[217] Rowlston, B, Barta, B and Mokonyane, J. 2000, Implementing New Water Law: A South African Experience, Paper presented at the Xth IWRA World Water Congress, Melbourne. Available at: http://www.watermagazine.com/secure/jc/0187.htm. Last accessed 23 March 2009.
[218] Rowlston, Barta and Mokonyane 2000, *supra*.

Water Act was one important step in the management of water resources in South Africa and South West Africa. Some of the important considerations include the distinction between public and private water to be discussed in more detail below.

5.3.1 Ownership of water under the 1912 Act

According to Vos,[219] two important innovations of the 1912 Act related to the definition of a public stream[220] and to the two portions of public water. The definition was changed to render streams public only if they could be put to common use for irrigation, and the water was divided into two portions, being normal flow and surplus water.

5.3.1. 1 Public ownership of water

In terms of Section 9 of the Act, all water which converged within a public stream was public water. This did not mean that if a stream lower down converged with a public stream, the whole stream back to the source contained public water.[221] Thus legally the water was only public from the confluence downwards as Section 10 (1) and 10 (2) provides, and the same was said in the case of *Ex parte Municipality of Somerset West and Cape Explosive Works Ltd*.[222] Regarding the common law as derived from principles of Roman and Roman Dutch law, Thompson comments:

> The common law position was that all water in a public stream, whether it was a normal amount or an increased amount due to floods, formed part of the stream and was subject to rules of reasonable use and proportionate share by riparian owners. This led to the difficulty that storage of a proportionate share was impracticable because it was too costly for an owner to store only his share and as result water over and above the reasonable share ran down uselessly to the sea. The traditional application of the riparian principle for public water was found not to suit the flow patterns of most South African rivers (especially in the northern part). Typical flows did not readily lend themselves to pro rota apportionment, as these flows

[219] 1978, p.5.
[220] In terms of Section 2 defined a public stream was a natural stream of water which, when it flowed, flowed in a known and defined channel from which the water was available for common use for irrigation on two or more original grants of land bordering the river, but the water did.
[221] Thompson 2006, *supra*, p.56.
[222] 1936 Watermeyer's Reports.

fluctuated considerably and dependable flows normally constituted only a small percentage of the runoff.

To cover for water dispute resolution, under the Act, Sections 27 to 45 provided for a Water Court which had jurisdiction to hear and determine water disputes and claims relating to entitlements to water.

In *Transvaal United Trust & Finance Co Ltd v Pietersburg Municipality*[223] there was at the head of a public stream a large *vlei* with water bearing subsoil. This formed an underground reservoir feeding the stream which emerged below the *vlei*. In the application for apportionment of the river's water, including the subterranean water, it was contended that the latter was the source of the public stream and being part of the stream was public water. The Court held that the underground water was not public water, because it did not flow in a known and defined channel underground, nor was it capable of common use for irrigation, and the 'source' of a stream was where the water 'first emerged to view', and that the underground water did not form part of the stream.

The Court held further that an owner of land may withdraw water for his own purposes from underground sources unless it is proved that such water is flowing in a known and defined channel leading to the supply of another owner or from the flow in the bed of a public stream, and that subdivisions of riparian land which are no longer in contact with the stream do not lose their riparian rights, unless expressly excluded.[224]

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[223] 1931 Uys WLC 158 WC.

[224] In arriving at this decision the court has noted the following decisions*:* *Boshoff v Reinhold & Co* 1920 AD 29 − WLC 158.124; *Divisional Council of Fraserburg v Van Wyk* 1927 CPD 285 − WLC 158.149; *Greeff v Keller* 1906 C (23 SC) 18 − WLC 158.57, WLC 158.62; *Louw v Louw* 1921 CPD 320 − WLC 158.73; *Ludolph v Wegner* 1888-9 C (6 SC) 193 − WLC 158.146, WLC 158.160; *Municipal Coumcil of Bulawayo v Bulawayo Water Works Ltd* 1915 AD 611 − WLC 158.103; *Peacock*

5.3.1. 2 Private ownership of water

Regarding private water, Section 15 to 20(b) provided that a person was entitled to exclusive and unlimited use and enjoyment of all water rising on his or her land. This was subject to the use not interfering with rights of use vested in downstream owners in respect of water which had been running down for the greater part of the year for their benefit for at least 30 years, or with other existing rights.

A dispute arose in the case of *Breyten Collieries Ltd v Dennil (1)*[225] regarding private water, whereby the appellant had a lease on a farm giving it the sole right to search, mine and work for coal on the farm and to use the water on the farm for the purpose of the mining operations. The lease was entered into in 1909 between the farmer and M, who ceded it to B in 1910. At the same time the respondent owned the adjoining farm. On the boundary there was a natural pan that accumulated rainwater, with no outflow. A dispute arose between the appellant and respondent as to how much water each could withdraw from the pan, and the Applicant applied to the Supreme Court to settle the dispute.

The respondent accepted that according to S 34 of the Irrigation Act 8 of 1912 only a water court had jurisdiction to hear such a dispute or claim. The Supreme Court held that the water in the pan was private water, and that Act 8 of 1912 applies only to public water; therefore Section 34(1) of the Act does not take away the jurisdiction of

v Hodges 1876 C (6 Buch) 65 – WLC 158.153, WLC 158.160; *Retief v Louw* 1874 C (4 B) 165 – WLC 158.57; *Sadien v Vosper* 1914 Uys WLC 18 WC – WLC 158.75; *Union Government v Marais* 1920 Uys WLC 68 A – WLC 158.50; D 8 3 17 – WLC 158.65.
[225] 1912 Uys WLC 7 T.

the Supreme Court to determine questions relating to private water which does not adjoin or form part of a public stream. The exception was therefore dismissed.

6. South West African water law under the Mandate System

6.1 Background

Namibia was declared Class C mandate by the League of Nations in 1919 and handed over to the British for administration thereunder. Britain further handed over the territory to South Africa for administrative convenience. South West Africa thus fell under the control and administration of the Union of South Africa. The South African government paid attention to enactment of water legislation through the implementation of a series of legal measures. Some of the pieces of legislation which were passed include Water Act Number 54 of 1956, which is still in force in Namibia, the Artesian Water Proclamation (1921), Artesian Water Control Ordinance no 35 (1955), and the Water Amendment Ordinance (1968). Particularly important in this regard is Water Act Number 54 of 1956. According to Rowlston, Barta and Mokonyane:

> The post World War II global industrial recovery and the resulting high demand for primary raw materials required water legislation to be adjusted, and the Water Act of 1956 was introduced. This Act perpetuated the riparian principle in terms of "normal" flow and "private" water, which granted exclusive use but not ownership, but the Act also attempted to regulate all "public" water for all water user sectors in the national interest by giving the State control of all water in excess of users' rights. Numerous Government Water Control Areas were established, in which the water courts had no jurisdiction, and the State played a major role in planning and implementing water resource developments. However, under the doctrine of apartheid - separate development – which originated in 1948 with the election of the Nationalist government, access to water resources became increasingly skewed in favour of the white population. The needs of the majority black population, herded into artificially-created and under-resourced "homelands"[226] were, to all intents and purposes, ignored by the government…[227]

[226] The ''Homelands'' Policy was an instrument of the Apartheid government whereby black Africans were forced to move and become citizens of designated rural areas.
[227] Rowlston, Barta and Mokonyane, 2000 *supra*.

It is clear from the exposition above that the system of managing water resources which was sector focused was made worse by Apartheid and its supporting legislation based on separate development.[228]

6.2 Water law under the 1956 Act

The Water Act makes a clear distinction between 'public' and 'private' water. 'Public' water includes

> 'any water flowing or found in or derived from the bed of a public stream, whether visible or not.'[229]

Private water, by contrast, means

> all water that rises or falls naturally on any land or naturally drains or is led onto more pieces of land which are subject of separate original grants, but not capable of common use for irrigation purposes.[230]

Section 6 of the Water Act of 1956 stipulates that there is no private property right to public water, whilst Section 5, which addresses private water, vests 'the sole and exclusive use and enjoyment of private water in the owner of the land on which such water is found.'[231] The Act thus gives preferential abstraction rights to the landowners on whose land such water is found.[232] This is known as the Riparian Rights Principle.

6.3 Ownership of water under the 1956 Act

This Act re-enacted most of the provisions in the 1912 Act, and again it was not so clear on a number of issues. From a practical standpoint Thompson says that in practice the position was not so clear. The Act comprehensively defined the concepts

[228] Zenani, 2006, *supra*.
[229] Section 1 of the 1956 Water Act.
[230] The doctrine of supremacy of the Constitution requires that all laws should be subject to, and be consistent with the Constitution, that is, in letter and spirit and purport. The Constitution of Namibia sets out the minimum standards against which existing and future laws or any conduct for that matter must be measured or tested. Water law, be it statutory or common, is no exception to this rule.
[231] Namibia Water Resources Management Review: Legislative and Regulatory Frameworks: Theme report, 2000, p.5.
[232] Land-based entitlement: Rights to abstract and use public and private water is based on the riparian principle which means that the right to water usage is determined by the location of the water resources in relation to the land. Ibid. p.18.

private water and public water. The problem was to classify water which did not comply with any one of these definitions. This undefined water was not statutory water and was probably regulated in terms of the common law.

The above holds true especially if we consider the judgement in *De Witt v Knierim* (1)[233] where the applicant sold a riparian farm to the respondent with the reservation of a right of servitude in favour of W's lower riparian farm to use the water from two fountains on the upper farm. The Respondent then dug a hole near to the fountains with the object of collecting seepage water. The applicant alleged that the dug dam reduced the water available to the Respondent from the fountains. The servitude agreement was silent on such a problem.

The Court held that the principle is that a grantor may not take back what he had granted. Its must therefore be presumed that the parties intended to prohibit the diversion of underground water if it would have the effect of less water being available to the applicant from the fountains, and further that after having heard much technical evidence, the Court could not conclude that the applicant had proved that the dug dam diverted underground water from the fountains and that W had now less water available.[234]

[233] 1990 Uys WLC 376 C.

[234] For more insights on this principle see also *A Becker & Co (Pty) Ltd v Becker* 1981 3 SA 406 A − WLC 376.89, WLC 376.90; *Chasemore v Richards* 1859 7 HL 349, 5 H & N 982, 5 Jur NS 873 − WLC 376.54; *Cinema City (Pty) Ltd v Morgenstern Family Estates (Pty) Ltd* 1980 1 SA 796 A − WLC 376.80; *Cliffside Flats (Pty) Ltd v Bantry Rocks (Pty) Ltd* 1944 A 106 − WLC 376.80; *De Bruijn v Louw* 1905 O 11 − WLC 376.27, WLC 376.33, WLC 376.40, WLC 376.51, WLC 376.54, WLC 376.56, WLC 376.58; *Du Plessis Estates Ltd v SA Railways and Harbours* 1933 Uys WLC 172 E − WLC 376.57, WLC 376.58, WLC 376.59, WLC 376.60, WLC 376.80; WLC 376.86 *and Willoughby's Consolidated Co Ltd v Copthall Stores Ltd* 1918 A 1 − WLC 376.82.

6.3.1 Ownership of Private water

In terms of section 5(1) of the Act, "The sole and exclusive use and enjoyment of private water belongs to the owner of the land on which such water is found"[235]. This position was however subject to the proviso that "Nothing in this section contained shall be construed as derogating from the right of an owner of land to a reasonable share of water which, rising on the land of an upper owner, flows in a known and defined channel on, or along the boundary of, land situated beyond that upon which such water rises, and has for a period of not less than thirty years been beneficially used by the owner of the land so situated."[236]

Based on this section in *Van Heerden v Wiese,* the rule held that water rising on private land and forming the source of a public stream was subject to the rights of all riparian owners, i.e. public water, notwithstanding that it could not as such be used for irrigation on more than one original farm.[237]

Vos submits that that was the state of the law when a water court was asked in 1971 to decide that one of the feeder streams of the Olifants River (Cape) was private.[238] The same was held in *Meyer v Johannesburg Waterworks Co.*[239] In this light Beyers JP held that the Act had not altered the common law, that the part was portion of the whole, that is, that the finger was part of the arm, and accordingly that the feeder stream, although private in its own right, was, by reason of its connection with the main stream, public.

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[235] Subsec (1) amended by sec 2 *(a)* of Act 22 of 1985.
[236] Ibid.
[237] Ibid.
[238] Vos 1978, *supra*, p. 8.
[239] (1893) Hertzog 1.

6.3.2 Ownership of public water

In terms of the 1912 Act, public water is all water which joins or forms part of a public stream, the consequence being that water which joins a public stream would be public, despite its being otherwise private, e.g. because it is too weak for common irrigation. In terms of Section 1 of the 1956 Act, public water is "any water flowing or found in or derived from the bed of a public stream whether visible or not" and in terms of Section 5(1) of the same Act "There shall be no right of property in public water and the control and use thereof shall be regulated as provided in this Act". However in terms of Section 5 (2) whenever an owner of land obtained, by artificial means on his own land, a supply of water which is not derived from a public stream, such water was be deemed to be private water.

This becomes clearer as we analyse the ruling in the case of *Le Roux v Kruger*.[240] In this case, the water court was asked to merely decide whether the stream was a public stream or not. Thereafter the parties would themselves be able to settle a certain dispute concerning the water. The stream arises on a certain farm where it branches into two streams. The left stream flows over farms W and R, and the right stream flows only over farm R before they join again. One party said that the stream is a public stream, because it complies with the definition in the Water Act of a "public stream" in that it flows over more than one originally granted farm and can be used for irrigation on at least two of such farms. The other party said that the left stream was not a natural course; that there was no economically irrigable soil on farm V; and that the (right) stream did therefore not flow over more than one irrigable original farm.

[240] WLC 367 WC.

After hearing the evidence and an inspection *in loco,* the Court held that the stream was a natural course; there were about 6 ha of irrigable land on farm V which may be an economic unit for growing apples; therefore the H stream was a "public stream" and further on the argument that the stream was a source of the RS river and that, as a source-tributary of a public stream, it was deemed to be a public stream. The Court held further that the water of a private stream which is a source and a tributary of a public stream only becomes public water when it joins the public stream.[241]

6.3.3 Riparian Rights Principle under the 1956 Act

Riparian rights existed between riparian owners. The Act does not satisfactorily define riparian ownership. In terms of Sections 1 and 153 a riparian owner means the owner of riparian land, and owner means the registered owner, including the various representatives of owners, e.g. trustees, but for purposes of loans and subsidies, 'owner' excludes a natural person.

Legal and environmental scholars have defined the riparian right as a right vested in the owner of a land that is situated near a river, stream or watercourse.[242] Under the 1956 Act, the right to use water on an adjacent or upper land was considered as a natural right. Under this system, the right of a lower riparian is protected to the extent of the customary flow of water to them. It was also laid down that interference with such flow is wrong, and no riparian owner is entitled to obstruct a public river with a dam. This rule has been aired by the courts since the formation of the Union of South

[241] For more authority see *Allen v Tamsen* 1932 Uys WLC 167 WC − WLC 367.16; *Bon Accord Irrigation Board v Pretoria Municipality (2)* 1921 Uys WLC 86 WC − WLC 367.16; *Coxton v Bezuidenhout re Koster River* 1916 Uys WLC 44 WC − WLC 367.47; *Dreyer v Ireland* 1874 C (4B) 193 − WLC 367.67; *Du Toit v Krige* 1971 Uys WLC 340 WC − WLC 367.22, WLC 367.24, WLC 367.26, WLC 367.87, WLC 367.91, WLC 367.96; *Erasmus v De Wet* 1874 C (4 Buch) 204 − WLC 367.62, WLC 367.64, WLC 367.64, WLC 367.67, WLC 367.74; *Hough v Van der Merwe* 1874 C (4 Buch) 148 − WLC 367.65, WLC 367.67, WLC 367.69; *Kirstein re Zendeling Spruit* 1917 Uys WLC 53 WC − WLC 367.48.

[242] Rajagopal A. and Janakarajan, S. 'State In Perplexity: The Politics Of Water Right And System Turnover In Tamilnadu.' Paper presented at *Water, Law And The Commons,* 8-10 December 2006, New Delhi, p.16.

Africa. In 1912 in the case of *Le Roux v Du Plessis*[243] the plaintiff claimed a declaration of rights as to the water of the Grobbelaars River in the Division of Oudtshoorn. He and the defendant were owners of certain portions of the farm De Cango which were riparian to the river. He complained that by certain unlawful acts, the defendant had deprived him of rights conferred by an award which was made an order of court some years ago.

Under the 1956 Act it was recognised that an upper riparian owner/water user has the right to use as much water as possible without diminishing the quantum enjoyed by a lower riparian owner/water user. If a lower riparian owner/water user feels that there is a reduction in water availability or flow, he can seek remedial measures in a water court. This was held in 1986 in the case of *GJO Boerdery Ondernemings Edms Bpk v Bloemfontein Municipality* (2).[244]

Similarly, a lower riparian does not have the right to flood the lands of the upper riparian by building a dam on a river. As regards drainage, an upper riparian has the right to drain excess water through channels without affecting the lower riparian's lands. It is to be noted that all riparian rights are applicable to only natural water sources and not to artificial canals or watercourses. Riparian rights continue to have relevance even today. They have not been lost in the process of development of the society.

6.3.4 Institutional and Structural Development under the 1956 Act

In 1962 a Commission of Enquiry into the socio-economic development of SWA was appointed by South Africa to develop guidelines for economic development. The

[243] 1912 Uys WLC 9 C.
[244] 1988 Uys WLC 373 A.

DWA recommended the extension of Owamboland Regional Water Scheme, the Naute Dam near Keetmanshoop, the Ruacana hydro-electric power scheme and the Calueque Dam, the Von Bach Dam at Okahandja, the Swakoppoort and Omatako dams as well as pumping water from the Okavango to the interior and the extension of water points for domestic and stock water consumption in remote rural areas.[245]

In 1969 the Water Affairs Department was integrated into the Department of Water Affairs of South Africa, and this increased the resources available for local water schemes development, and by 1974 a Master Water Plan was adopted, followed by the completion of several large dams and groundwater supply projects.[246] The more significant dams include Von Bach (1970) Naute (1971) Friedenau (1972) Dreihuk (1977) and Swakoppoort (1979). During this period the central Namib Regional State Water Scheme (RSWS) was completed as well as the Ovamboland RSWS, the Otjituuo-Okakarara RSWS, and the Swakoppoort-Windhoek RSWS. In addition to the upgrading of several water supply schemes, the first phase of the Eastern National Water Carrier was completed during this period.[247]

Following Resolution 435 and the semi-autonomous existence of South Africa, the South African government decided in 1980 to make the Directorate of Water Affairs divorced from its mother body in South Africa. Under this semi-autonomous existence between 1980 and 1990 the DWA extended its investigations and research activities, extended water schemes and established a number of additional supply schemes, including the 260km Grootfontein Omatako Canal and massive dams such as the Omatako (1983), Otjivero (1986) and Oanob (1990). Other major hydrological

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[245] LaRI 2004: p 48.
[246] LaRI 2004: p48.
[247] Heyns, P. 1991, *supra*, p.28.

work included the Omaruru groundwater recharge enhancement investigation,[248] the quantification of surplus water available from State dams for irrigation, as well as the integrated system analysis for the Eastern National Water Carrier. The DWA produced the first hydrological review of the country in 1986/87.[249]

7. Post Independence Water Regime

7.1 Background to the new Constitutional era

The Namibian Constitution, which came into force at independence on 21 March 1990, did not have a specific provision for water. However there is a general provision for land and natural resource ownership and management. These provisions shall be considered in detail below. Here, it is of essence to note that the history of Namibian water law shows continuous transformation and constant conflict of interests between the State and the public in terms of water use and management. The current Namibian water law and policy sends the message that water is too valuable a commodity for its management to be handed over to its users, and there remains a vital role for external monitoring and enforcement. This portrays a complex course of Namibian water law reform.

7.2 Ownership of Water under the New Constitutional Regime

In terms of Article 100 of the Namibian Constitution, land, water and natural resources below and above the surface of the land and in the continental shelf and within the territorial waters and the exclusive economic zone of Namibia shall belong to the State if they are not otherwise lawfully owned. Schedule 5(1) stipulates that "All property of which the ownership or control immediately prior to the date of

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[248] McClune, J. 2004. *Water Privatisation in Namibia: Creating a new Apartheid?* Windhoek: Labour Resource and Research Institute (LaRRI), p.48.
[249] Ibid.

Independence vested in the Government of the Territory of South West Africa, or in any Representative Authority … shall vest in or be under the control of the Government of Namibia."[250]

The above provisions indicate that the State remains in control of all the water resources, and water management remains state centric. Despite some tentative moves toward the enactment of new water law in Namibia, the ownership of water rights is still administered by the DWA under the terms dictated by Water Act 54 of 1956. This Act of 1956 was extended to Namibia under the provisions of Section 180 (1) of the same Act.

7.3 Creation of the Public Trust

The origins of the Public Trust Doctrine are traceable to Roman law concepts of common property. As we have seen above, under Roman law, the air, the rivers, the sea and the seashore were incapable of private ownership; they were dedicated to the use of the public. Under English common law, this principle evolved into the Public Trust Doctrine pursuant to which the sovereign held the navigable waterways and submerged lands, not in a proprietary capacity, but rather as *trustee of a public trust for the benefit of the people* for uses such as commerce, navigation and fishing.

7.3.1 The Public Trust Doctrine from a statutory perspective

Before 1990, all communal land belonged to communities under Representative Authorities, but under the Constitution, all communal land and natural resources thereon vests in the State. Section 4 of the 2004 Act states that ownership of water

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[250] Emphasis added: though Article 100 vests ownership of the water resources in the State and by implication gives ultimate responsibility for, and authority over, water resources management to the State, yet the proviso 'if they are not otherwise legally owned' limits this power to determine the use of these resources and this needs to be more fully investigated. WAWRD/Ministry of Agriculture water and Rural Development. 2000, supra, p.7.

resources in Namibia below and above the surface of the land belongs to the State; and the State must ensure that water resources are managed and used to the benefit of all people in furtherance of the objectives of the Act as a whole and compatible with the fundamental principles referred to in Section 3 of the same Act. Section 17 of the Communal land Reform Act 5 of 2000 provides that “All communal land areas vest in the State in trust for the benefit of the traditional communities residing in those areas.”

Section 4 of the 2004 Act, Section 17 of the Communal Land Reform Act, read with the Constitution, shows that the new water regime is administered under a public trust. There are some authors who have written about Namibian natural resources ownership as ‘owned’ by the State. This perception is wrong insofar as the public doctrine is concerned. The Namibian government or the State in general does not *own* water, but the government as the temporary bearer of state authority has the overall responsibility and more importantly the authority to ensure that all the water in the country is managed for the benefit of all the people.

Thus, the public trust created by Section 4 of the 2004 Act and Section 17 of the Communal Land Reform Act is an affirmation of the duty of the State to protect the people’s common heritage of all waters for their common use. Although the State is tasked with carefully managing the public trust, it should be noted that under Section 4(b) of the 2004 Act, the State as the administrator of the public trust “is not burdened with an outmoded classification favouring one mode of utilization over another”[251] but that the Namibian government is enjoined to carry out its public trust obligation in a way which:

- Guarantees access to sufficient water for basic domestic needs;
- Makes sure that the requirements of the environment are met;

[251] *Marks v. Whitney* (1971) 6 Cal.3d 251, 259-260.

- Takes into account the interconnected nature of the water cycle, a process on which the sustainability and renewability of the renewable resources depend;
- Makes provision for the transfer of water between catchments;
- Respects Namibia's obligations to its neighbours, and
- Fulfils its commitment as custodian of the nation's water.[252]

From the above it is discernible that the trust devolves upon the State for the public, and the obligations can only be discharged by the management and control of water in which the public has an interest, and they cannot be relinquished by a transfer of the property. In the United States, in the case of *Illinois Central R.R. Co. v. Illinois*,[253] it was held that the control of the State for the purposes of the trust can never be lost, except as to such parcels as are used in promoting the interests of the public therein, or can be disposed of without any substantial impairment of the public interest in the lands and waters remaining.

7.3.2 Public Trust Doctrine and water law under the Communal Land Reform Act

As shall be seen in Chapter 5 below, traditional communities do not separate water and land ownership, especially land and ground water. There were divergences when it came to piped water. Be that as it may, it has been highlighted above that Section 4 of the 2004 Act and Section 17 of the Communal Land Reform Act create a public trust on communal land, so by implication the same affects water law as well.

The public trust under the two Acts cited above is statutory, and it prescribes the ambit of State obligations in communal areas. The Communal Land Reform Act

[252] Thompson, 2006, supra p.279.
[253] 146 U.S. 387 (1892).

created a public trust in regard to communal land and made it clear by the phrase "in trust for the benefit of the traditional communities residing in those areas". The 2004 Act similarly said the "State must ensure that water resources are managed and used to the benefit of all people in furtherance of the objective referred to in section 2 and compatible with the fundamental principles referred to in section 3." The legislature went on to delimit the state obligation in communal areas and said the communal land trust is "for the purpose of promoting the economic and social development of the people of Namibia, in particular the landless and those with insufficient access to land who are not in formal employment or engaged in non-agriculture business activities."

Having noted the above, and before analysing the implications of Section 4 of the 2004 Act and Section 17 of the Communal Land Act on water law, it must be kept in mind that from a statutory perspective, the Public Trust Doctrine's imposed scope of trust can be thought of in several dimensions. First, it has a geographic reach that must be defined. Under the Communal Land Reform Act, as will be broadened below, the trust has been confined to communal lands. Secondly, the uses that the trust protects and prohibits must be defined. Under the 2004 Act, the purposes of the trust are stipulated and limited. Finally, the Public Trust Doctrine places restrictions on the alienation of public trust lands to private interests when doing so would undermine the protected public uses.

In American jurisprudence, the tests for what uses the State may not endorse have proved susceptible to flexible application.[254] The same holds for Namibia since the Communal Land Reform Act provides for flexibility in granting the State the power

[254] Selvin, M. 1980. 'The Public Trust Doctrine in American Law and Economic Policy 1789-1920, 1980' *Wisconsin Law Review*. 1403 (6):1422-37. See also Richard J. Lazarus, Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine, 71(1):631-641.

to withdraw communal land (trust resources) and make same private property. However there is a limitation on this police power of the State. There are procedures including compensation which may be required to be paid to communities. This follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested.

Under Namibian water law therefore, the Legislature, acting within the confines of the common law Public Trust Doctrine, is the ultimate administrator of communal land trust and often may be the ultimate arbiter of permissible uses of trust resources including water. This implies that all water abstraction and uses must take into account the overarching principle of the Public Trust Doctrine that trust lands belong to the public and are to be used to promote public rather than exclusively private purposes. The Legislature cannot commit trust waters irretrievably to private development, because it would be abdicating the public trust.[255]

The above points mean that the power exercised by the State over water on communal lands is nothing more than what is called the *jus regium*, the right of regulating, improving, and securing water rights for the benefit of every individual citizen. Therefore as Mapaure puts it, the word 'vests' cannot be interpreted to mean 'own.'[256] In the light of Mapaure's reasoning, the sovereign power itself, therefore, cannot, consistently with the principles of the law of nature and the constitution of a well-ordered society, make a direct and absolute grant of the waters of the State, divesting all the citizens of their common right.

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[255] *Illinois Central Railroad v. Illinois,* case 452-53.

[256] Mapaure, C. 2009. 'Jurisprudential aspects of proclaiming towns in communal areas in Namibia' *Namibia Law Journal*. 1(2): 23 – 48.

The Public Trust Doctrine is a useful check on legislative improvidence and malfeasance with respect to critical natural resources.[257] Although the Act restricts the trust to communal areas, under the Constitution as highlighted above, the fiduciary responsibility of the State to protect public trust uses of their waters extends to all marine resources within the whole of Namibia.

Since Professor Joseph Sax published his landmark article in 1970 arguing for revitalisation of the Public Trust Doctrine,[258] commentators have explored the potential implications of the "public trust" concept for natural resources, environmental, and property law.[259] Consistent with Sax's vision, and fuelled by dissatisfaction over the state's lethargic legislative responses, the doctrine soon became academics' "legal Holy Grail: an extra-constitutional, counter-majoritarian check on the natural resource allocation decisions of misguided legislative majorities".[260] Indeed the chief impact of the Public Trust Doctrine is facilitating public access to and use of natural resources and limiting state power in the allocation thereof.

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[257] Sax, 1970; Wilkinson, 1989 *supra* and Blumm 1989 *supra.*

[258] Sax, JL. 1970. 'The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention,' *Michigan Law Review* 68(4): 471–566.

[259] To list but a few of the recent examples: Poirer, MR. 2006. 'Modified Private Property: New Jersey's Public Trust Doctrine, Private Development and Exclusion, and Shared Public Uses of Natural Resources.' *South Eastern Environmental Law Journal*, 15(4) 71-93 Ruhl, J.B. and Salzman, J. 2006. 'Ecosystem Services and the Public Trust Doctrine: Working Change from Within', *South Eastern Environmental Law Journal,* 15(1) 223-239. Henquinet, JW. & Dobson, T. 2006. 'The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study.' *New York University Environmental Law Journal,* **14**(2):322-373; Kleinsasser, ZC. 2005. Public and Private Property Rights: Regulatory and Physical Takings and the Public Trust Doctrine, 32 *BC Environmental Affairs Law Review.* 32(2):421-453.

[260] Rasband, 1999. Book Review: The Public Trust Doctrine: A Tragedy of the Common Law Oyster Wars and the Public Trust: Property, Law, and Ecology in New Jersey History. By McCay. BJ. Tucson 1998: Arizina: The University of Arizona Press. *Texas Law Review*. 1335-36.

8. The Riparian Rights Principle and the private public water dichotomy

The Roman-Dutch law applied by Namibia includes the concept of riparian rights. This principle provides that where a river lies wholly within the territory of one community, it entirely belongs to that community and no other community has any rights therein. And where a river passes through more than one community, each community owns that part of the river which runs through its territory. The same principle is found in international law applicable to international water courses.[261] The question arises however whether this common law principle is unconstitutional in the context of Namibian Constitution.

8.1 Constitutionality analysed

Whereas the 1956 Water Act provides for private and public water, the Constitution regards natural resources as common resources. Thus they constitutionally belong to the State unless otherwise lawfully owned. The 2004 Act has done away with riparian rights ownership because of the overarching public trust, but recognises the right insofar as international water courses are concerned.

Considering that all water is controlled by the State under the Public Trust Doctrine, in terms of the laws analysed above, is the common law Riparian Rights Principle embodied in the 1956 Act consistent with the Constitution or not? In recognition of this apparent contradiction between the Act and the Constitution, the authors of the NWRMR theme report on legislative and regulatory frameworks reasoned that 'whereas the concept of public water in the Water Act is consistent with the Constitution, the concept of private water is prima facie at odds with it.' This conclusion by a branch of the government raises intricate questions regarding the true

[261] Starke, JG. 1947. *An Introduction to International Law***.** London: Butterworth & Co., p.19.

position of water ownership under the 1956 Act, read along with the Constitutional provision.

Despite all the evidence, the authors of the Social-Economics and Financial Issues Theme Report of the Namibia Water Resources Management Review, however, seemed oblivious to these dangers and put forward the dubious proposition that "Private property rights provide better incentives for the efficient use of water".[262] This view was however contradicted by that of the legal experts involved in the NWRMR study who concluded that:

> The Riparian Rights Principle is irreconcilable with equity and the modern tenets of water resources management which demand that allocation of abstraction and usage rights should be done by the government, not individual landowners whose personal interests might not coincide with the general public.[263]

In the critical summary and conclusion of the Legal and Regulatory Framework Theme report, the author/s shows that:

> The present legal and regulatory framework applies rules of well-watered countries of Europe, notably seventeenth century England and Holland, to the arid climactic conditions of Namibia. In this sense the existing regime is ignoring the hydrological reality of Namibia. Basing abstraction rights mainly on land ownership (the riparian principle), the Water Act effectively excludes Non-land owners from having adequate and equitable access to water. With most land in the hands of a white minority, the Act is inconsistent with the Constitution, but also with Namibia's national developmental goals, especially the aspect of social justice.

In essence, the basic tenet of the riparian rights doctrine is that any person who owns and occupies land on the bank of a natural stream acquires water use rights which are commonly known as "riparian rights" by virtue of the occupation of that land. It is important to note at the outset that the right to water is attached to, or appurtenant to, the riparian land. Therefore, riparian rights cannot be acquired or disposed of without the riparian land. That is the reason why riparian rights are said to be "attached to or

[262] WAWRD/Ministry of Agriculture water and Rural Development. 2000, *supra*, p.114.
[263] McClune, 2004, *supra*, p.55.

incident to riparian land".[264] This shows that the private ownership of the vast majority of the arable land in Namibia directly impacts on the distribution of water resources and may prove harmful to the welfare of the general population. This is the case particularly with people in the communal areas who are often deprived of vital water resources due to the current unequal distribution of land.[265]

9. The Institutional framework

After independence the new government instituted the Ministry of Agriculture, Water and Rural Development (MAWRD) into which the DWA was incorporated. The Ministry of Fisheries and Marine Resources was established separately to cater for marine, offshore and sea related resources. Of the private bodies supplying water in the post-independence dispensation the First National Development Corporation (NDC) supplied large quantities for irrigation in the Kavango and Caprivi.[266] Though the finance for these private schemes was generally provided from private institutions, there were instances in which the State assisted in the locating and drilling of bore-holes through the subsidisation of costs.[267]

The Directorate of Rural Water Supply (RWS) was formed within the Department of Water Affairs (DWA) when the rural water supply function was transferred to the DWA within the MAWRD after Independence. Officially, the rural water supply function still resides in the MAWRD.

In September 1993 Cabinet endorsed the Water and Sanitation Policy (WASP) Guidelines. These guidelines (proposed by an inter-ministerial committee) included:

[264] Clark, SD. and Renard, IA. 1972. *Law of Allocation of Water for Private Use: Framework of Australian Water Legislation and Private Rights, Vol. One.* Melbourne: Australian Water Resources Council, p.61.
[265] McClune, 2004, *supra*, p.55.
[266] McClune, 2004, *supra*, p.52.
[267] Ibid.

- Recovery of operation and maintenance costs for rural water supply
- A graduated tariff structure for urban water supply which would protect a lifeline supply

In August 1994 it was agreed that the feasibility of commercialising the bulk water supply should be investigated and that a Water and Sanitation Committee (WASCO) should be established to co-ordinate the implementation of the WASP guidelines. In June 1997, cabinet endorsed the WASCO principles. One of the key aims of the policy is that:

> revenues from the provision of water supply services shall cover operation and maintenance costs within five years starting in year 2 and full cost recovery within 10 years.[268]

This meant basically that government subsidies for basic water services to urban and rural communities would be phased out. It is important to note that after independence, the new national government introduced a socio-economic doctrine focusing on equity and sustainability as the major objectives of national development policy. Despite the throng of Article 95 of the Constitution, the Government did not change the 1956 Act but continued it until 2004 when a new act, the Water Resources Management Act was passed. This Act has not yet come into force. Thus Namibian water law is still based on the 1956 Act. The 2004 Act provided an integrated enabling legislative framework within which Namibia's water resources can be managed, and water services can be provided.

10. Conclusion

This Chapter has laid a background to the analysis in the following Chapters. The changes in water ownership have been analysed, but a critique of the written law and

[268] WAWRD/Ministry of Agriculture water and Rural Development. 2000. Namibia Water Resources Management Review: Legislative and Regulatory Frameworks: Theme Report. Windhoek: WAWRD/Ministry of Agriculture water and Rural Development, p.3

the common law still has to be done against the perceptions of the communities, as presented in Chapter 5 below. This Chapter also has shown that the law of Namibia regarding communal land informs the concept of ownership of water especially underground water. The history explored in this chapter exemplifies how water management has been shaped by the laws and community participation or management of water resource management. Chapter 5 seeks to address whether the laws which exist in the community are at variance with the laws that are made by the State.

Chapter 5

Ownership and Control of Namibia Waters: An Empirical Experience

1. Introduction

This chapter presents empirical evidence of the rural communities' positions regarding the question of ownership of water in communal areas and comments on such positions. Furthermore, and in the context of the concept of ownership, the chapter provides statistics and rationale on the question of whether communities regard water and land as separable natural resources. This question will also be taken up in Chapter 6, with a reflection on the arguments on the right to water. The statistics or views of the community members presented in this chapter illuminate the fact that legal pluralism seems to turn the idea of a unified legal system into mere fiction since the majority of the interviewees subscribe to the meaning of the law as rejected by the State.

The evidence further shows the plurality of views which need careful explanations or interpretation, and it is in this light that the researcher had to solicit explanations and comments for the positions interviewees expressed. These comments of respondents in the field are recorded and weighed against findings in the literature and compared to other studies elsewhere.

Chapter 4 has exposed the State position regarding ownership of water, the rationalisation thereof and other related points. It is not enough to end there. The

theory of legal pluralism permits us to move from focusing all inquiries on the state system—as is required by positivism—to exploring other legal orders that exist in a given jurisdiction. Such inquiry could reveal that these systems are, in reality, performing the same work as the state system in a different, and sometimes better, way.

On the above backdrop, the empirical evidence from this study as recorded in this chapter shows that the customary laws of the communities and the pieces of state legislation seem to be in antagonism to local laws at some crucial points. A conflicting and confusing situation regarding the management of water resources in communal areas has created some unhealthy hydropolitics. Without exploring the conflicts and general hydropolitics, the chapter will lay a foundation for the discussion in Chapter 6, 7 and 8 below.

2. Background to the Statistical exposition

To a positivist, it may sound awkward that people, groups of people or human institutions can claim ownership of the elements of nature. Yet there is written law which defines the regime of ownership of such a resource. The idea of ownership from a positivistic standpoint becomes elusive, as one sees through the statistics below, that ownership of natural resources has an anthropological meaning, a meaning which calls for varied considerations of what the community considers to be legal ownership and what the philosophical and spiritual meaning of ownership of a natural resource is.

The opinions and perceptions of the respondents recorded below, among other indications, reveal that ownership of natural resources is equated with the desire to control, manipulate and subjugate what is owned or perceived to be owned. In this

way, the ownership of natural resources reduces the earth, in all its complexity, to a set of ownable things. However at the same time it takes us to the heart of the central conflict of conservation laws in Namibia and the conflict which arise in powers of the central government versus traditional government structures and the deadly seriousness of human intrusion in the natural landscape in general, illustrating that:

> We humans have to make a home for ourselves in the natural world. We must transform our physical environment to satisfy our wants and needs; and we must interpret it, make sense of it and, in doing so, we inject our surroundings with meaning and significance. The landscapes we live in mark our attempts, and those of our ancestors, to modify nature in line with human purposes, and they are filled with historical and symbolic significance.[269]

As a background to the data tabulation and interpretation below therefore, it should be noted that questions regarding ownership of common properties like water tend to be intensely controversial, but it is clear that the fundamental characteristic of community-based property rights is that their primary legitimacy is drawn from the community in which they exist, and not from the nation state in which they are located.

3. Statistical presentation, explanations and interpretation

3.1 Ownership of water in Kavango

Ownership of natural resources and in particular ownership of water in communal areas is shrouded in intricate philosophical underpinnings whose network invites careful analysis. The Mbunza ownership of resources is similar to that of other African ethnic groups in general but with intriguing differences. The concept of ownership among the Mbunza demonstrates that water has multiple and profound levels of sacred or spiritual value for African communities in addition to their

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[269] Hailwood, SA. 2007. Owning nature: The Case of Hegel. In: Clements, B. (ed) *Probing the Boundaries: Environmental Justice and Global Citizenship*. Oxford: Inter-Disciplinary Press, pp.245-254, p.245.

economic, ecological, and more mundane social values.[270] These mundane social values may be further layered with shades of meaning and symbolism as a result of clan affiliation, long practiced familial customary use, special trees, hunting, or farming areas. A concoction of community values which emanate from water as a resource illustrates the notion of cultural identity itself.

In Kavango, a total of 31 respondents were interviewed. These people understand the concept of ownership of water resources from a perspective which is different from the position of the State as exposed in Chapter 4 above, and this position of the community has different rationalisation as explained below. Their philosophical perspectives are different from those of the State as well. However there is one common and important underlying point regarding their understanding of ownership, which is that ownership includes the ability to control and claim such control exclusive of those who come from outside the community.

Table 1 below shows that the majority of the Mbunza people regard water as owned by the whole community. The largest category of the respondents, 11 people out of a total of 31 respondents, said that water is owned by the whole community. As the pie chart below indicates, these 11 people constituted 35 % of the total respondents. Eight (8) people, who constituted 26%, said that water is owned by the government.

Table 2: Ownership of water in Kavango Region

Whole Community	Government	Ekongoro	Water committee	Creator	Total
11	8	5	3	4	31

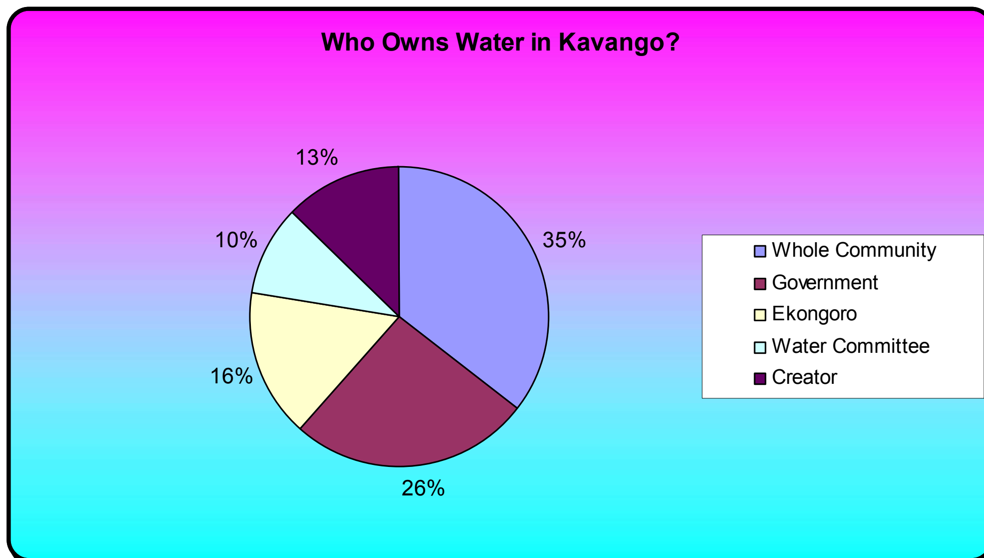
[270] Fieldnote 16 and 80

There was an interesting position in Kavango which was never hinted at in any of the other two studied regions. Some 5 people, who constituted 16%, said that water is owned by what they called Ekongoro.[271] They explained that Ekongoro was described as a half human half fish creature which lives in the river. This to the researcher happened to be the mermaid. Most of the people in Sivara Village along the Kavango River and those in Kapako said that this animal resides in the water, and there are certain times of the year it manifests itself, like in times of flooding where some people profess to have seen it 'sitting' on top of flood water. Others explained that if one abuses water, Ekongoro can pull one into the water, like in cases where one deliberately defecates in the water or pollutes the point where people collect drinking water.

Ekongoro is regarded as a form of a god residing in the river and controlling water use. Thus it is considered a taboo to pollute or in any way desecrate river water. It is therefore the duty of the whole community through the chief and headmen and headwomen to protect river water in their territory. There are no water committees in most of the Kavango communities living along the river.

Figure 8: Ownership of water in Kavango Region

[271] Fieldnote 55, 56, 59, 61 and 62.



The position that Ekongoro owns water shows that traditional communities, or at least the Mbunza Community, have their own vision of water, which differ from the western water vision. If water is regarded as belonging to Ekongoro, then it is used with a religious sense by community members in order to evoke the spirits of the dead so that they watch over the community.[272] In the light of the above, some community members in Sivara Village said they do not take water from the nearby school borehole, because it is not fit for brewing traditional beer.[273]

Water committees are active in Epingiro 1 and 2, and the presence or powers of these committees seem to create the impression that the water committee is the one which owns water.[274] This perception was held by 10% of the respondents, 3 people out of 31 respondents. Other people have a wider view about ownership of water. Those who said Creator/god/God is the owner of the water amounted to 4 people.[275] Of these four, three used the word "Creator" and the remainder used the word "God". In order

[272] Fieldnote, 59 and 61.
[273] Fieldnote,56, 59, 63 and 64.
[274] Fieldnote, 80.
[275] Fieldnote, 49, 52 57 and 60.

not to confuse the Christian God and the god/God in African traditional religion, this researcher found it more appropriate to use the term "Creator" ,because the two God/gods may equally be viewed as creators, hence the marrying point for Christian and African Traditional religious concepts.

Nobody in Mbunza Area said the Chief is the owner of water. This position is predicated firstly on the notion that water is not a common resource. Hence no person can individually claim to own water (except the Chief who claims ownership of the borehole which was drilled for him by Chinese road contractors) nor can residents regard an individual as the owner of water. However the residents accept that the Chief is the overall guardian of all community affairs. This means that he can have a say in how the water should be utilised by the community. Secondly, as noted above, the Chief has his own water point – a borehole. Thus community members[276] regard him as the owner of that particular water point. Not all the other water points in the community are regarded as belonging to the community in general. The headmen and headwomen are not even regarded as the owners. Neither do they regard themselves as the owners or say their head, the Chief is the owner.[277]

3.2 Ownership of water in Otjozondjupa Region

In Otjozondjupa Region and specifically in Okakarara, Okonjatu, Okamatapati and Otjituuo with their surrounding villages, a total of 28 people were interviewed. Eleven people who constituted 39% of the total respondents said that the whole community is the owner of the water. This is an interesting answer since these areas have piped water supplied to them by Namibia Water Corporation (NamWater). The researcher

[276] Fieldnote, 2, 21, 31, 33, and 80.
[277] Fieldnote, 16, 22, 50, 51 and 58.

anticipated that the majority of the respondents would say that the government is the owner of the water since Namwater can be regarded as a government of water charged with supplying water in bulk to customers. From the reasons given for this answer, it seems that this interesting position in Otjozondjupa is held because of the persistent conflicts which the government and NamWater has had with the studied rural communities, especially Okamatapati Settlement Area.[278] The table below shows the numbers per position regarding ownership of water in the region or at least in the studied areas combined.

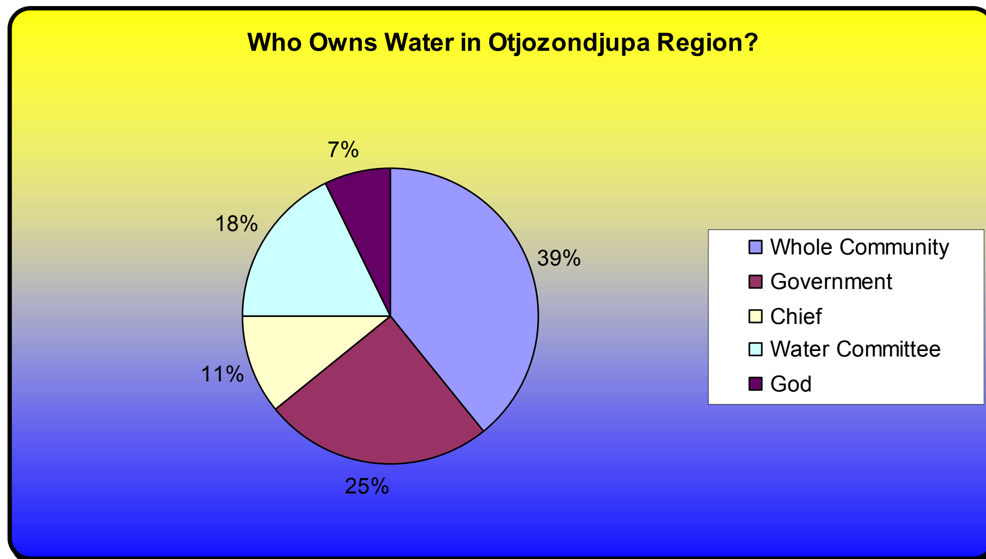
Table 3: Ownership of water in Otjozondjupa Region

Whole Community	Government	Chief	Water committee	Creator	Total
11	7	3	5	2	28

The results in Table 1 are presented also in the pie chart below. As the chart indicates, these 11 people constituted 35 % of the total respondents. Of the respondents, 7 respondents, who constitute a quarter of the total number of respondents, said that the government owns water. Out of these 7 people, 3 are government officials,[279] with 2 working for Otjozondjupa Regional Council,[280] 1 for the Ministry of Agriculture, Water and Rural Development,[281] 3 are Councillors in the Traditional Authority of the Kambazembi Royal house,[282] and 1 is an ordinary community member staying in Okonjatu Settlement Area.[283] The pie chart below shows the data in Table 1 above expressed in percentages of the total respondents.

[278] Fieldnote, 26, 27, 85, and 88.
[279] Fieldnote, 11, 12 and 13.
[280] Fieldnote, 11 and 12.
[281] Fieldnote, 13.
[282] Fieldnote, 32, 25 and 26.
[283] Fieldnote, 67.

Figure 9: Ownership of water in Otjozondjupa Region



Those who said the government owns water referred to the government in the broad sense, meaning the executive part of State administration including Regional Councils, and some cited the Constitution as the ground for their position, and some cited what they were told by various government officials from Windhoek.[284] This explains the information conduit from the top executive members in the central government to the government workers at the bottom and even Traditional Authorities.

The whole conduit is coloured with this view, and it has a legal foundation which links well with the history as elucidated in Chapter 4 above. From the reasons for the answer it was clear that this position is reinforced by the laws which government officials always use, for they always cited the Constitution. Government officials are the people who prepare manuals regarding water management in Namibia, and although they show that the community has to participate in CBM, they always exonerate the government at the expense of the community members who toil at the

[284] Fieldnote 12 and 13.

bottom to make sure that boreholes and pipelines or at least water points are functional. However things are more easily said than practiced. It will take time to change the mindset of bureaucrats who were taught that people are an anathema to management of natural resources and therefore should be kept out and be converts of community based natural resources management.

There is one respondent who admitted that water is owned by the government, but he was quick to point out that he does not refer to NamWater.[285] The explanation of this respondent was rather interesting in that he pointed out that when the administration of water by NamWater was introduced in Okamatapati, it was clear to most residents that it was based on control, not ownership of water.[286]

The position in Otjozondjupa, similar to the other studied regions, shows an African system of water property whereby water, which is piped to the community by state agencies, is viewed as an element in the democratisation process that occurred during the 1990s in other African countries, where governments have established a legislative system governing various branches of industry, including water. The Constitution may say that water is vested in the State, but in reality, this provision remains only a simple claim, as a real juridical prerogative would not be accepted without great resistance by the customary water users. Effectively, what characterises African water law is the existence, parallel to written laws, of a corpus of customary norms which originate largely prior to colonisation. In a country where the majority of the population is in the rural areas, these norms tend to supplant the official written legislation in relation to the exploitation of the water resources by the local inhabitants. During this research, the customary leaders affirm that the State is

[285] Fieldnote, 67.
[286] Ibid.

powerless without those who know the true water needs and traditional values of the people.[287] Traditional Authorities in Otjozondjupa see themselves as the intermediary between population and the central government administration, although they are not always included in the affairs of water committees. According to these traditional leaders, no serious study, with the ambition of creating acceptable juridical norms, could ignore the essential contribution of customary law.[288]

3.3 Ownership of Water in Ohangwena Region

In Ohangwena Region the same amazing situation arose. The table below shows that 9 respondents out of 22 total respondents said that water is owned by the whole community. As can be seen from the table and the pie chart below, the majority of the people, 41% of the respondents, said that water is owned by the whole community. This answer was an embodiment of varied answers with the same conclusion. The answers included that there is only common ownership; hence the community is the custodian of all natural resources found in its area no matter what the government says.[289] Others said that water is given to the community by God the Creator, so by virtue of that gift from the Creator, the community acquired ownership of the water.[290] Not all respondents were straightforward. For example another said “Water in *iishana* is owned by all members of the community, but at times we have private *iishana*. However the water at the point belongs to the whole community given to us by the government”.[291] This answer points to one direction that water does not have owners, nobody can own nature. That is the reasoning but if one considers the reason which the respondents give, it is clear that the conclusion is that the community owns the water at a water point as common property.

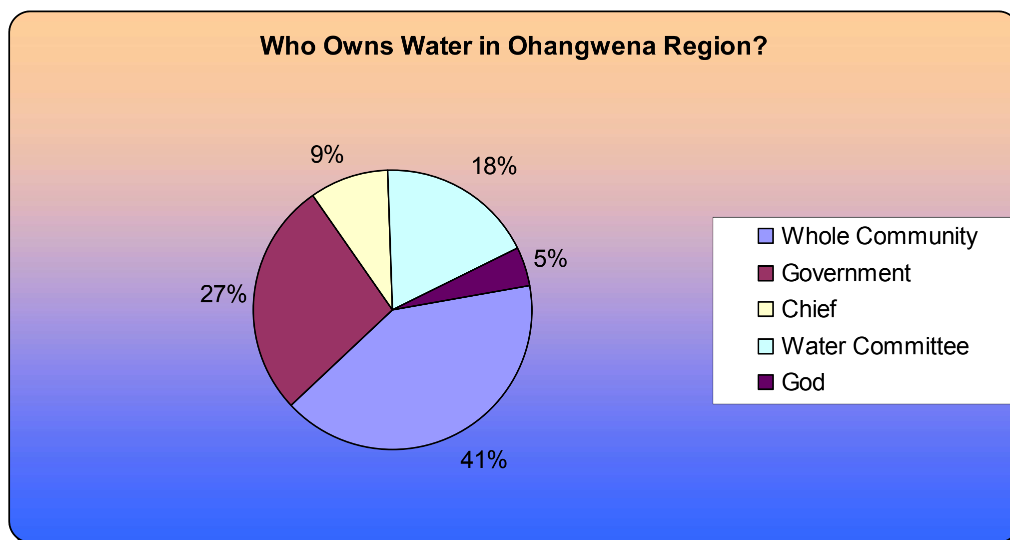
[287] Fieldnote, 24, 25, 26 and 27.
[288] Ibid.
[289] Fieldnote, 17, 19, 20, 29 and 78.
[290] Fieldnote, 28, 43 and 45.
[291] Fieldnote, 39.

Table 4: Ownership of Water in Ohangwena Region

Whole Community	Government	Chief	Water committee	Creator	Total
9	6	2	4	1	22

The pie chart below converts the same information above and with percentages, illustrates the divergent positions which respondents held.

Figure 10: Ownership of water in Ohangwena Region



The same answer discussed above raises controversies insofar as we consider where the water comes from. Some residents in Ohangwena get their water from the NamWater purification plant at Ogongo and some from the one at Oshakati. This water in turn comes from Ruacana River via canal or through a pipeline from the river.[292] In this light, the researcher was left with a question as to whether the position in Ohangwena villages is tenable. Do communities really understand the concept of

[292] As Fieldnote 47 who was interpreter to researcher explained the whole water supply system to researcher.

an imported resource like water? Who owns, the community where the water comes from, the purifier, or the recipient communities?

More confusingly, other respondents said "God created water for us. No one can own water on their own. What happens is that if God created it for us all, then we as a community own what God gave us, but the government tells us how to utilise it in a good way".[293] This answer may be interpreted to mean that God is the original owner of the water, but because the people find themselves residing in the community, they (through the Creator transferring ownership to them) became owners of that water without much ado. A further complication to this is the position of the government which the respondent illuminated in this answer. The answer above implies that the Creator is the owner who gave the water to the community to use, but the government has taken the responsibility to supply the 'God –given' water to the rural community. At the same time one can say that the Creator created water and gave it to the community who now owns it, but the government controls the way that community owned resource is utilised so that all communities in the country can benefit from sustainable utilisation of water.

Some people (18%) regarded water as belonging to the water committee. This can be explained in a similar way to the position of the respondents in the other two regions. The Kwanyama Traditional Authority said that the presence and effects of the decisions of the water committees have created the impression that the committees are the owners of water in the region in that they collect payments for water from individual consumers and keep the money in an account which not all members of the community know. What community members know is that the money is just

[293] Fieldnote, 36.

accumulating in that account without being paid to any other entity like NamWater or Directorate of Rural Water Supply. This is a true position, and it has created the impression that water committee members are using the money for their own benefit, which is an incorrect perception. [294] This position is, however, held by only 18% of the population, being 4 people out of 22 respondents interviewed in the region.

As the Regional Head for Rural Water Supply explained it, in Ohangwena Region there is also a position that the government is the owner because of the nature of development the government has brought to the community.[295] The projects of the government as facilitated by the Ministry of Agriculture, Water and Rural Development aided by donor and other non governmental organisations regarding the piping of water to rural communities. This makes it unjustifiable for some to say that somebody other than the government is the owner of the water.

4. Comparison of all studied regions: a holistic approach

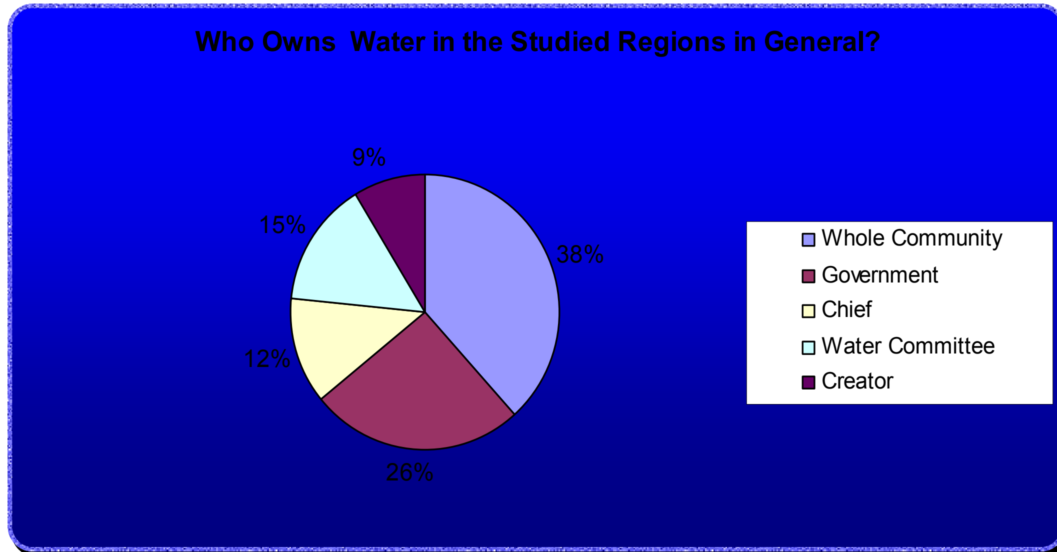
The table and the pie chart below show a summary of the number of respondents in relation to the question on the ownership of water in all studied areas.

Table 5: Comparison of all studied Regions

Whole Community	Government	Chief	Water committee	Creator	Total
31	21	10	12	7	81

[294] Fieldnote, 17 and also 18.
[295] Fieldnote, 10.

Figure 11: Comparison of all studied Regions



The two figures above show that most of the people regarded the whole community or the government as the owner of water. As for those who regarded the whole community as the owner, the number went up to 31 respondents (38% of 81 respondents), whereas those who said the government owns water amounted to 21 respondents (26% of the total respondents).

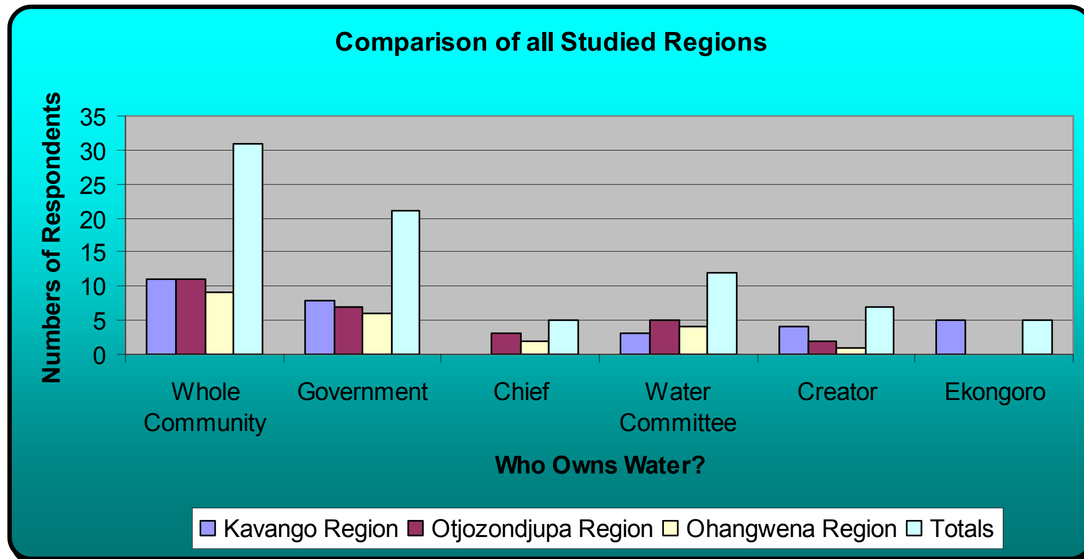
Table 6: Graphic comparison of all Regions

Who owns	Whole Community	Government	Chief	Water committee	Creator	*Ekongoro*	TOTAL
Kavango Region	11	8	0	3	4	5	**31**
Otjozondjupa Region	11	7	3	5	2	0	**28**
Ohangwena Region	9	6	2	4	1	0	**22**
Totals	**31**	**21**	**5**	**12**	**7**	**5**	**81**

For those who say that the government has ownership of water rights, it seems that they perceive that they have a 'customary law interest' in the water piped to their area. The substantive content of the interest was a right to exclusive beneficial use and use, akin to that held under common-law ownership. In this light one respondent says that water is owned only if you pay the required amount according to what you take. You

own what you pay for. Water in the pipe is owned by the government until somebody pays and puts it in their container.[296]

Figure 12: Graphic Comparison of all studied Regions



As the graph above shows, the largest group of respondents were those saying the whole community is the owner of water in all of the studied regions, a total of 31 respondents, the highest number being in Kavango. Under Kavango customary water law, surface water such as the Kavango itself is considered community property which can never be individually owned.[297] Water, as part of the customary landholding, is vested in the community as a whole, although some said it is owned by Ekongoro as explained above. A member of a community or family may be able to utilise the Kavango River which is a naturally flowing river, without interference from the public or the community in general.[298] However this right is subject to the

[296] Fieldnote, 41.
[297] Fieldnote, 30, 31 and 53.
[298] Fieldnote, 54, 58 and 65.

condition that the community member getting water from the river does not pollute the river or render the water undrinkable for others.[299]

In Kavango riparian rights to the river also apply. Riparian communities under customary law recognise the right of use held by each other.[300] Where two or more communities are contiguous to a water body, they usually agree, either expressly or through practice, on different spots from where each community may go and fetch its water.[301] The communities manifest the communal ownership in the way they render community services in clearing paths leading to the river body as well as cautioning against the pollution of the point where water is drawn.[302] Customary water rights and the common law riparian rights doctrine discussed in Chapter 4 above have a strikingly similar basis and incidents, in that:

(a) in both instances, the ownership of riparian land is the basis of acquiring water use rights;
(b) the lower riparian is equally entitled as the upper riparian to the flow of the water in its natural state and quality; and
(c) in a navigable watercourse, the right of navigation of all people, including non-riparians, is acknowledged and guaranteed.

These points are discussed in detail by Kalinoe,[303] and here it is safe to conclude that the common law doctrine of riparian rights is not inconsistent with the relevant custom relating to water use rights as known, observed and practiced by inhabitants of Namibian communal areas. As the Governor of the Kavango Region explained it, when the extent of the applicability of the common law riparian rights doctrine is considered against the Constitution, there are no impediments in terms of any

[299] Fieldnote, 16 and 64.
[300] Fieldnote, 16, 21, 54, 59 and 61.
[301] Fieldnote, 59 and 61.
[302] Fieldnote, 16.

[303] Kalinoe, L. 1998. Water Law and the Nature of Customary Water Rights in Papua New Guinea. Unpublished PhD Thesis, University of Wollongong, p.20-22.

inconsistencies with statute or with custom, because of the absence of private ownership along the Kavango River.[304]

In Otjozondjupa the communities link water ownership to land ownership. Hence their title to the land also means title to water thereunder since the boreholes take water from the ground as opposed to piped water in Ohangwena Region. Most of the water piped to various areas in Otjozondjupa is pumped from underground reservoirs in the Waterberg area. Hence it remains 'Herero peoples' water.[305] This explains why some residents in Okamatapati[306] are not comfortable with paying for water in their settlement area, especially those high bills they are arguing against as discussed in Chapter 7 below.

In this light, the nature and the content of the right to water held in studied Otjozondjupa Region communities must be determined by reference to indigenous law as opposed to the Constitution or modern statutes. This holds because in terns of South African and Australian case law, indigenous law is the law which has governed traditional land and natural resource rights since time immemorial.[307]

Furthermore, in Otjozondjupa Region, at the risk of generalising, the nature of the Herero community units varied. They might include the clan rather than the village. For instance, this is the case amongst many pastoralist Herero groups. In the past, water was rarely 'owned' exclusively even by these groups. However, access by others was often allowed, subject to permission being sought and reciprocal

[304] Fieldnote, 2.
[305] Fieldnote, 68, 69, 72, 75 and 77.
[306] Fieldnote, 85 and 88.
[307] *Alexkor Ltd and Another v Richtersveld Community and Others* 2004 (5) SA 460 (CC); 2003 (12) BCLR 1301 (CC); paragraph 54 and Compare with *Oyekan and Others v Adele* [1957] 2 All ER 785 at 788G-H.

arrangements sometimes being made. There was therefore a link between land tenure and water rights, but "this was based on community territories rather than land 'ownership'".[308]

In Ohangwena so far the weight given to customary law in the water sector reform programme has not been substantial, and empirical evidence in the statistical exposition above indicates that the survival of customary practice is getting overshadowed by the legal supremacy of the constitutional principles. This may be because of the effectiveness of the officials of the MWARD in the region, who constantly hold meetings with the residents in the villages educating them about how to manage water resources and in the process always injecting the feeling that the State owns all the water, and the written law is the best in managing water resources.

In the case of conflict between local people and the State, it is the supreme constitutional principles and statutory rules which are authoritative, but the majority of community members in the studied regions have shown that they will always subscribe to customary rules. Also, the findings show that there is a general lack of understanding about customary water law among government, water management practitioners and policy makers in the three studied regions.

Contrary to what seems to be the popular view, it should be noted that customary water rights cannot be determined by reference to common law, because in the light of the position of the Privy Council, if a dispute results from the contradictions in traditional rules and statutory rules, then such a dispute has to be determined according to indigenous law "without importing English conceptions of property

[308] Fieldnote, 11.

law"[309] which we see in modern statutes and even the 2004 Water Resources Management Act (the 2004 Act).

The dangers of looking at indigenous law through a common law prism are obvious. The two systems of law developed in different situations, under different cultures and in response to different conditions. In this regard we are in agreement with the observations of the Privy Council in *Amodu Tijani v The Secretary, Southern Nigeria*:[310]

> Their Lordships make the preliminary observation that in interpreting the native title to land, not only in Southern Nigeria, but other parts of the British Empire, much caution is essential. There is a tendency, operating at times unconsciously, to render that title conceptually in terms which are appropriate only to systems which have grown up under English law. But this tendency has to be held in check closely. . . The title, such as it is, may not be that of the individual, as in this country it nearly always is in some form, but may be that of a community. . . To ascertain how far this latter development of right has progressed *involves the study of the history of the particular community and its usages* in each case. Abstract principles fashioned a priori are of but little assistance, and are as often as not misleading.[311]

The determination of the real character of indigenous title to land therefore "involves the study of the history of a particular community and its usages".[312] This holds further in so far as we accept, as South African Courts have done, that while in the past indigenous law was seen through the common law lens, it must now be seen as an integral part of Namibian law. Like all law it depends for its ultimate force and validity on the Constitution.[313] Its validity must now be determined by reference not to common law, but to the Constitution.[314] Bennett points to the need for caution in this respect.[315]

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[309] Ibid.
[310] 2 AC [1921] 399 (PC).
[311] Ibid at 402-4.
[312] Ibid at 404.
[313] Compare *Pharmaceutical Manufacturers Association of South Africa and Another in re Ex Parte the President of the Republic of South Africa and Others* above n 25 at para 44.
[314] Section 2 of the Constitution, see *Mabuza v Mbatha* 2003 (7) BCLR 43 (C) at para 32.
[315] Bennett, TW. 1991. *A Sourcebook of African Customary Law for Southern Africa*, Cape Town: Juta and Co. Ltd, p. vi.

In addition, as noted in the case of *Alexkor Ltd and Another v Richtersveld Community and Others,* cited above, although a number of text books exist and there is a considerable body of precedent, courts, policy makers and legislators when reforming law impacting on customary legal rights today have to bear in mind the extent to which indigenous law in the pre-democratic period was influenced by the political, administrative and judicial context in which it was applied. It seems that the drafters of the 2004 Act presumed that customary legal institutions will automatically fall into the foam of the 2004 Act, but Bennett[316] points out that, although customary law is supposed to develop spontaneously in a given rural community, during the colonial and apartheid era it became alienated from its community origins.

The result was that the term "customary law" emerged with three quite different meanings: the official body of law employed in the courts and by the administration (which, he points out, diverges most markedly from actual social practice); the law used by academics for teaching purposes; and the law actually lived by the people. This informs us that caution must be exercised when dealing with textbooks and old authorities because of the tendency to view indigenous law through the prism of legal conceptions that are foreign to it. On this note and in the context of water law, it should be noted further that generally, customary law is based on the community principle that land and water belong to the local community and therefore cannot be subject to individual rights of ownership or use except by virtue of membership in the community. Water rights, therefore, are not something which were given to water users, but they were gained or acquired by them over a very long period of time.

[316] Ibid.

On consideration of the general perceptions of the people regarding ownership of water among the studied regions in general, we see that the emergence of the economics of property rights and the new economics of water institutions reflects attempts to bring the issue of control of the utilisation of water resources directly into economic analysis. According to Eggertsson[317] this kind of new institutionalism has a twofold purpose:

1. to explain how a particular structure of control emerges, survives, and decays; and
2. to examine the implications of various systems of control for the organization of economic activity and for economic results, such as growth, the distribution of wealth, and environmental quality.

This seems to be supported by the spirit of the 2004 Act, which among other things aims at protecting the government from any loss through blind subsidisation of the water sector. Ownership of water among the three studied regions in general from a broader perspective shows that there is a simple majority of those who say that water is owned by the community as a whole, not by an individual nor by the government. The government is seen more of a controller than an owner. This control exerted by the government is evidenced by the coercive administrative and legal measures against the community members. Community members do not see this control as bad, but necessary, in that as they understand, lack of control may incite costly races for possession; restricted control may allocate assets to beneficial and more broadened uses for the benefit of the community.

[317] Eggertsson, T. 1996. 'The Economics of Control and the Cost of Property Rights'. In Hanna, SS. Folke, C. and Mäler, K-G. 1996. *Rights to nature. Ecological, Economic, cultural and political principles of institutions for the environment*, pp157 -175, p.159.

In the three studied regions at least, it is clear that whereas the government regards itself as the owner of all resources on communal land including water, not all residents on these communal lands regard the government as the rightful owner of the land and trees thereon. The government takes the legitimacy of its ownership from the Constitution and several statutes. These legal instruments are the ones that are disputed by the communities as asserting and imposing government ownership on the said communities and at the same time casting doubt on the legitimacy of government ownership of the resources. This suspicion about the legitimacy of government ownership of water exists as one analyses the position of community ownership, whose legitimacy lies in the embedded and sacred traditional values and laws. This is an evident area of legal pluralism in Namibia.

5. Ownership and control from a jurisprudential perspective

From the general outlook, the Mbunza Community is viewed by them as a microcosm of the macrocosm. The earthly society in the eyes of the community members is a resemblance of the Divine community which provides the earthly community with the life blood it deserves. Mbunza cosmologies frequently emphasise the inter-relationships between disparate values, both sacred and secular. That cultural trait has direct implications for the spirit of stewardship the Mbunza exhibit in the management of communally-owned forests, and clearly influences local managerial decision-making like the decisions of the *Hompa*, forest management practices at community level, and consequent forest health and ecology, which means the balance between the available resources and the way they are extracted and exploited.

6. Brief contrast with the written legal position

Although the classification of legal rights as vested or otherwise is well known, it is not easy to provide a definitive statement of the meaning of the phrase: 'This is due in part to some difficulty inherent in the subject, but the main source of trouble is the

fact that the words "vested" and "contingent", as applied to legal rights, bear different meanings according to their context in both popular and legal parlance hence the small differences in the percentages of respondents presented below.[318]

7. The land –water interface

7.1 Is there a difference between water and land ownership?

The United Nations Food and Agricultural Organisation has concluded that there is not necessarily a separation between land and water rights. [319] This prompted the researcher to look into whether there is a separation between land and water ownership. But water rights frequently go beyond an entitlement to a mere quantity of the simple chemical compound which is water: the flow of the water is also an important component of a water right.[320] More important is the land on which such water flows, whether through a pipe or not. The fact that the water is piped does not make any big difference to the answers. Land and water seem to be closely attached, and where there is an international boarder marked by a river such the Kavango River, sometimes the river does not have any meaning in so far as separation of countries is concerned, especially where the river as a border separating communities who view themselves as one.

Without going into the politics attached to international watercourses and how that affects Namibian traditional communities, it should be mentioned that the ownership of water and land as inquired upon in this research, is an interesting topic which may call for further research. In this research however, the researcher asked the question and had to record the answers on land ownership against the respondents' answers on

[318] Cowen, DV. 1949. 'Vested and Contingent Rights' *South African Law Journal.* 66(1):404-415.
[319] Hodgson, S. 2004. *Land and Water – the Rights Interface.* Geneva: Food and Agriculture Organization of the United Nations, p.14.
[320] Ibid.

the question of water ownership. The question was whether there is a difference between water and land ownership. The statistics below show that there is an interface. This interface is interesting insofar as the explanations are concerned. The tables below compare the two questions in tabular form.

Table 7: Water land interface

Table 7a: Water ownership

Who Owns Water	Whole Community	Government	Chief	Water committee	Creator	Ekongoro	TOTAL
Kavango Region	11	8	0	3	4	5	31
Otjozondjupa Region	11	7	3	5	2	0	28
Ohangwena Region	9	6	2	4	1	0	22
Totals	**31**	**21**	**5**	**12**	**7**	**5**	**81**

Table 7b: Land ownership

Who Owns Land	Whole Community	Government	Chief	Water committee	Creator	Ekongoro	**TOTAL**
Kavango Region	13	3	5	0	10	0	31
Otjozondjupa Region	12	10	1	0	5	0	28
Ohangwena Region	10	9	0	0	3	0	22
Totals	**35**	**22**	**6**	**0**	**18**	**0**	**81**

As illustrated in the explanation on water ownership, the above tables demonstrate that there is an interface between water and land ownership. A total of 31 respondents said that the whole community is the owner of water, but when it came to land ownership, the number increased to 35 respondents saying the land is owned by the whole community. This is explained by the fact that there are certain communities with different worldviews about the ownership of the two seemingly separate resources.[321] In Kavango for example, five respondents said that water is owned by Ekongoro[322] (presumably, the mermaid), but when it comes to land, the mermaid disappears and ancestral spirits feature as overseers of community land, activities

[321] Fieldnote, 1, and 4.
[322] Fieldnote, 55, 56, 59, 61 and 62.

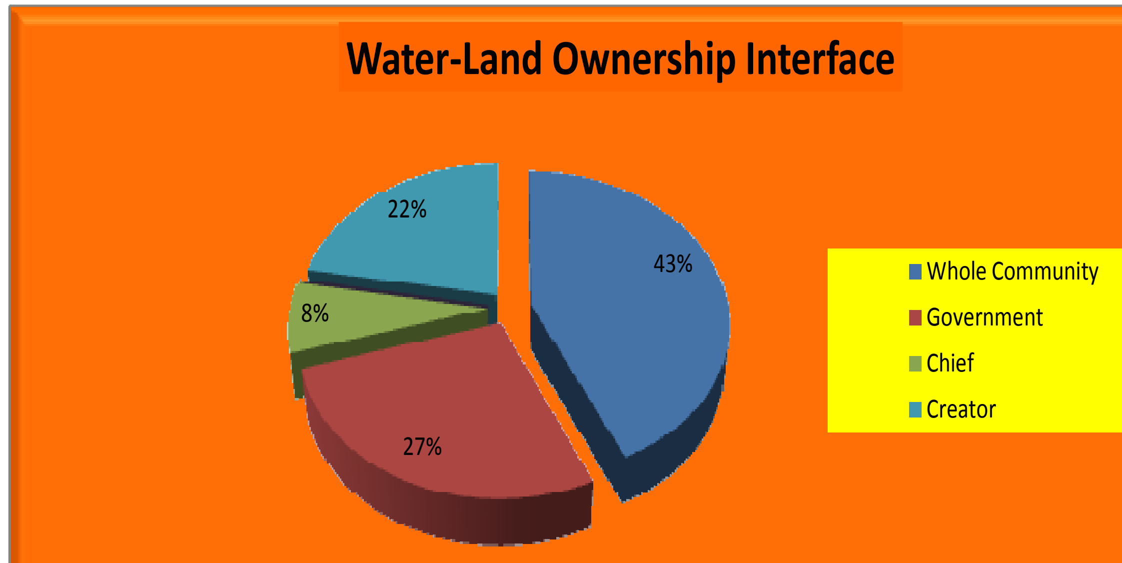
thereon and all traditional beliefs in general, hence a collective community land ownership.

In Otjozondjupa Region 12 respondents said that water is owned by the whole community, and 10 respondents said that water is owned by the government, but when it came to ownership of land, the number 11 for water ownership was increased to 12 respondents saying the land is owned by the whole community and the number 7 for water ownership was increased to 10 on the question of land ownership. This general increase is mainly due to the fact that nobody said that the water committee owns the land. Neither was there an answer that Ekongoro owns land.

Furthermore, whereas 3 respondents said that water is owned by the Chief, only one said that land is owned by the Chief.

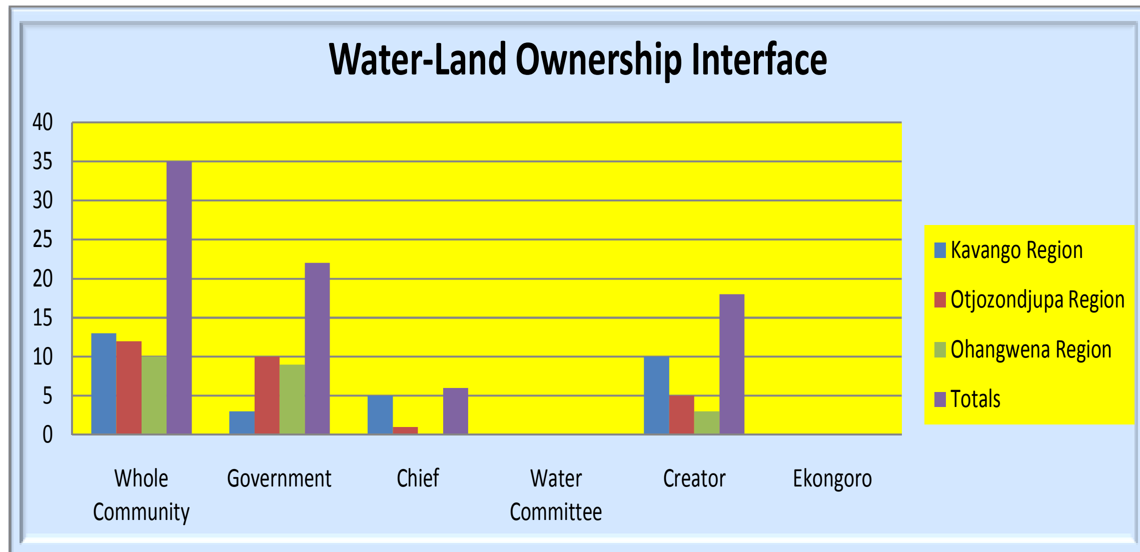
In Ohangwena, 9 respondents said that water is owned by the whole community, and this number went up to 10 when it came to the answers regarding ownership of land. Furthermore, 7 respondents said that the government owns water, but this number went up to 9 when it came to the question regarding ownership of land. These differences can best be explained by the shifts in the previous positions on water ownership, especially the exclusion of the water committee and Ekongoro in land ownership. These positions are illustrated graphically below in the form of a pie chart and a graph.

Figure 13: Pie Chart illustrating water- land interface



The figure above shows that the majority of all respondents in all the regions, 43%, say that there is no separation between water and land ownership. Most of the reasons for this pointed to the fact that communal water tenure is not separate from communal land tenure. Traditional water tenure has its basis in African customary law, which was modified over the course of colonialism and other modern developments. In all the three regions studied, it was pointed out that water as a common property combines elements of both individual and collective property rights. An individual's entitlement to water flows from membership of a traditional, ethnic community, although outsiders also get water through the consent of traditional leaders. The figure below shows a more comprehensive outlook of the position of respondents on the question of land water interface in all the three regions on the same question of water land ownership interface.

Figure 14: Bar graph illustrating water- land interface



7.2 Land-Water interface: a general and philosophical explanation

From the general outlook it seems that land and water ownership was a concept introduced by European emigrants, but close scrutiny of the concept of ownership of natural resources from an afrocentric view reveals that water and land ownership are intertwined in traditional and religious foundations of all communities studied in this research.

There was a division of opinions on the question of whether piped water can be owned in the same way as underground water. Some respondents said that piped water cannot be owned like water underground, because piped water is in a pipe as the name 'piped water' denotes. This was reinforced by the view that piped water comes from a river via a treatment plant somewhere away from the traditional community consuming the water. The community therefore cannot own water that has been transported from a faraway place which they do not even know, but the land is the community's property. One respondent from Ohangwena Region summed it up:

> We cannot own water that comes from Ruacana River through a canal; it gets treated in Oshakati and is pumped to us here. That water cannot be said to belong to us. We own land yes, because it is here and is not transported from somewhere. We reside here as a community and it has always been our land. We have water underground. That water is part of our soil, so it is our water as well, not the piped one.[323]

This distinction was not agreed to by other respondents in Ohangwena who said:

> Our community owns both piped and underground water. If water is piped here, it has been given to us by the government, so it is ours and we have to take care of it and not waste it... Water that is underground is part of the land which belongs to the community… if we say the government owns this water, then we can as well say water which I have drank which is now in my stomach, belongs to the government. That will make sense to me.[324]

Another respondent in Otjozondjupa put it in the following words:

> That is why we pay for this water; NamWater is causing us to pay for the water. If we do not pay, they cut-off, meaning that they are selling the water. I cannot say the government owns water, because the water comes from our mountains, the Waterberg area… they drill boreholes and pump water to us, is that their water? The Land is also not owned by the government, because we were here and our forefathers have been here before the arrival of even the Europeans who chased our fathers from Waterberg and to areas like to Botswana. Some of them remained here and fought for this land. It belongs to all Herero people…. Some are digging wells because they cannot afford.That water in the wells is also ours. Who is the government to own water in the well?[325]

Generally there is an acceptance in all the studied regions that there are customary land and water rights. The legitimacy or legal foundation of these rights however does not emanate from the nation state legislation but from customary environmental and property norms. A question that arises in many parts of the world is what should be the relationship between formal land tenure rights and water rights regimes and land tenure rights and water rights that exist under customary law. According to Hodgson,[326] the issue can be put another way. In most jurisdictions the legal recognition of both land tenure rights and water rights depends ultimately on their

[323] Fieldnote, 38.
[324] Fieldnote, 44.
[325] Fieldnote 88.
[326] Hodgson, S. 2004. *Land and Water – the Rights Interface*. Geneva: Food and Agriculture Organization of the United Nations.

inclusion in formal registers. Customary rights do not receive their normative effect on the basis of registration.[327] One respondent in Kavango said:

> Don't you know that we own all these resources here as a community? We own our land, water, all these forests, nobody can just cut trees here. We as a community watch over all these resources which God created for us. The government just guide us on the laws which look at how we should use our resources. They wanted us to go and register our land. We cannot do that… we will always follow what our fathers did… they never went to Windhoek to take a paper saying that they own this land, because it has always been land of all Kavango people.[328]

It should be noted that Kavango communities have resisted registration of customary rights under the Communal Land Reform Act citing that the Act is in conflict with their customary laws on land management. A question for further research is whether customary water rights are recognised by formal regimes and if so, how can this best be achieved? And furthermore, another connected question is: if customary rights over land are recognised, how should this affect the recognition of customary rights over water?

8. Pluralistic indicators

The position of traditional community members in this chapter is a clear indication of legal pluralism in Namibian water law. The position may however be difficult for most government officials and black letter lawyers. According to Hinz, new approaches are needed which reconnect jurisprudence and anthropology.[329] Further, according to Hinz, the challenges of positivism may be best met by proactive responses to problems emerging from the interface between local perceptions and the

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[327] Although, attempts to bring customary rights within a formal rights regime like section 25 of the Communal Land Reform Act 5 of 2000 may eventually entail this.
[328] Fieldnote, 42.
[329] Hinz, MO. 2003a. Customary law in Namibia. Development and perspectives. Windhoek: Center for Applied and Social Sciences.

international discourse.[330] Twining[331] notes that lawyers have problems with handling legal pluralism:

> [L]egal pluralism is generally marginalised and viewed with scepticism in legal discourse. Perhaps the main reason for this is that over 200 years Western legal theory has been dominated by conceptions of law that tend to be monist (one internally coherent legal system), statist (the state has a monopoly of law within its territory), and positivist (what is not created or recognised as law by the state is not law).

This reflects the growing realisation that positivistic models of legal study, alone or in combination with idealising natural law approaches, have failed to grapple with global socio-legal realities. If law is a social phenomenon, any legal theory that ignores socio-cultural elements and values in relation to law would yield just a partial vision and remain unrealistic.[332] To take account of interlegality,[333] pluralism needs to be conceived as ”a universal phenomenon covering both Western and non-Western societies and, at the same time, appearing in not only the dual structure of state law and minor customary law but also the triple of customary law, national law and international law”.[334]

9. Conclusion

This chapter indicates that contrary to the position of the state, the majority of the respondents in the three studied regions regard the community as the owner of water on communal land. Considering the position of community members in this chapter, in the light of the discussions in Chapter 4 above, it can be concluded that there are inherent contradictions and internal conflicts of laws regarding how people perceive

[330] Hinz, *supra*, p.117.
[331] Twining, W. 2000. ‘Comparative Law and Legal Theory: The Country and Western Tradition.’ In Edge, I. (ed.) *Comparative Law in Global Perspective*. New York: Transnational Publishers, p.232.
[332] This is one of the criticisms of the pure science approach of Kelsen. For details see Freeman, M. and and Lloyd, D. 2001. *Lloyd’s Introduction to Jurisprudence.* London: Sweet & Maxwell, p.255ff.
[333] Santos, B. de Sousa, 1995.Towards a New Common Sense: Law, Science and Politics in the Paradigmatic Transition. New York and London: Routledge.
[334] Chiba, M. 2002. *Legal Cultures in Human Society*. Tokyo: Shinzansha International, p.7-8. see also Chiba, M. 1985. ‘The channel of official law to unofficial law in Japan.’ In Allott, A. and Woodman, GR. (eds.) *People’s law and state law. The Bellagio papers.* USA: Foris Publications, pp.207-216.

and conceive the concept of ownership and critically regarding the vesting of ownership in the State. Specifically, there are patent conflicts regarding the nature of ownership which the State asserts and the nature of ownership which the communities assert. Both ownership regimes lean on different philosophical backgrounds.

Furthermore, a complex relationship seems to exist between customary land tenure and water rights. The complexity exists in the plurality of legal codes compounded by the politics that underlie institutional control of both water and land in communal areas. This holds as we consider what the participants in this study have illustrated, that the type of rights recognised by customary law are often quite different from those recognised by formal law “thus making it more difficult to accommodate them within formal rights regimes”.[335]

[335] Hodgson, 2004, *supra*, p.89.

Chapter 6

The Right to Water and Water Rights in a Pluralistic Society

1. Introduction

One of the traditional responsibilities of the state has been providing for the welfare of its population, and one of the most basic and elementary components of human survival is accessibility to water, for without it life itself cannot be sustained.[336] Population increases, internal migration and the environment have increasingly placed a significant burden on the state to meet its obligation of water accessibility. In a developing country like Namibia, this burden is even greater, for the capital resources necessary for such infrastructure and the technological know-how have been limited. This situation, compounded with the politics of Namibian rural water supply, affects the people's right to water in various ways.

This chapter connects researchers' observations on the practice of a right to water in rural Namibia, at least in the studied regions, with how that right could be considered within the broader context of the plural legal regime of Namibia. The chapter starts with a consideration of the right to water in general, and assesses the legal foundations it has in international instruments. It goes on to consider the implications of Section 3 of the Water Resources Management Act 24 of 2004 (the 2004 Act) in Namibian water law. There follows a critical analysis of the right to water in a legal plural state, concentrating on the meaning and implications of the 2004 Act on rural

[336] Theodosios, S. 2009. 'Hydropolitics: Capitalist Imperatives, Human Security and Water.' Paper presented at the *Annual Meeting of the International Studies Association,* Town and Country Resort and Convention Center, San Diego, California, USA, Mar 22, 2006 available at http://www.allacademic.com/meta/p99146_index.html. Last accessed 20 May 2009.

communities who normally use customary law and informal structures as opposed to state/formal institutions and legislative and rules, and simultaneously then analyses the hydropolitics that come as a consequence of this reform process.

As a background, it should be understood that water is life power, and thus engenders social struggle. In Namibia, and specifically in the studied regions, water rights struggles involve not only disputes over the access to water, infrastructure and related resources, but also over the contents of water rules and rights, the recognition of legitimate authority, and the discourses that are mobilised to sustain water governance structures and rights orders. The unhappiness which some communities harbour about rural water supply should get the most government attention, because the low-profile and more localised water rights encounters, ingrained in local territories, are far more widespread and have an enormous impact on the Namibian waterscapes.

2. The right to water across the world

A major shift in underlining the significance of a right to water was the General Comment No.15 of July 2002 UN Committee on Economic, Social and Cultural Rights, in which the Committee concluded that there is a human right to water embedded in Article 11 in the Convention on Economic, Social and Cultural Rights (CESCR), defining the right to livelihood as including adequate food, clothing and housing.

The General Comment on the right to water was adopted by the UN Covenant on Economic Social and Cultural Rights in 2002, so the 145 countries which ratified the Covenant agree that:

> "The human right to water entitles everyone to sufficient, affordable, physically accessible, safe and acceptable water for personal and domestic uses."

In addition, the State especially, is required to develop mechanisms to ensure that this goal is realised.[337] However, productive uses of water are not always meaningfully separated from domestic use, specifically in terms of subsistence agriculture.[338] Water as a human right is implicit within the non binding 1948 Declaration of Human Rights; the 1966 International Covenant on Economic, Social and Cultural Rights; the 1966 Covenant on Civil and Political Rights; the 1986 Declaration on the Right to Development Under Article 10 of the UN Convention on the Law on Non-Navigational Uses of International Watercourses. Basic human need should always be given priority in the event of any conflict.[339]

The said 2002 General Comment provides a new framework for law and policy supplanting the Dublin Principles, which have too often been understood in the African context to mean water with the 'right' price. Does a human rights approach to water, especially in rural contexts, speak to the multiple ways in which men and women share and manage water? We examine if and how local norms and practices include water within a broader right to livelihood. Field research in Zimbabwe demonstrates the existence of a right to water and livelihood which can be responsive to gender and poverty. it can be suggested that relevant stakeholders incorporate local norms and practices within water management laws and policies at regional, national and local levels.

[337] Rijsberman, F. 2004. *The Water Challenge*. Copenhagen Consensus Paper, Copenhagen Consensus 2004. available at http://www.imv.dk/Files/Filer/CC/Papers/Sanitation_and_Water_140504.pdf Last accessed 28 May 2009.
[338] Moriarty, P. Butterworth, J. and van Koppen, B. (eds.) 2004. *Beyond domestic: Case studies on poverty and productive uses of water at the household level*. IRC, NRI and IWMI. the Netherlands. Preprints available at: www.irc.nl/page/6129. last accessed 02 March 2009.
[339] Gleick, P. H. 1998. 'The human right to water.' *Water Policy* 1, 487-503.

The term 'right to water', as understood by the Committee, indicates that the catalogue of rights encompassing the right to livelihood is not exhaustive but must be adapted to changing social and economic concerns such as the global water crisis.[340] Concluding that water is a human right, the Committee emphasises the interdependence between human rights in general and between access to water and the right to health in Article 12,1, the right to food in Article 11 and the right to life and human dignity enshrined in the International Bill of Human Rights.

Recognising that water is required for a range of different purposes that are essential for human life, the Committee on Economic, Social and Cultural rights signalled three elements: water must be adequate for human life, it must be safe and available, and it also must be available on a non-discriminatory basis. Adequate water, according to the Committee, is far broader than just clean drinking water since it encompasses water for personal and domestic uses and the necessary water resources to prevent starvation and disease. The scope and extent of the human right to water is defined through its link to the right to life, the right to health and the right to food. In the view of the committee and especially important for this paper is that the sustainable access to water resources for agriculture is necessary to realise the right to adequate food.[341] Disadvantaged and marginalised traditional community members, both men and women, are entitled to special attention to have equitable access to water and water management systems, including sustainable rain harvesting and irrigation technology.

[340] Eide, A. 2001. 'The Right to an Adequate Standard of Living Including the Right to Food.' In Eide, A. Krause A. and Rosas, A. (eds.) *Economic, Social and Cultural Rights: A Text-Book* Dordrecht: Kluwer International.
[341] United Nations Committee on Economic, Social and Cultural Rights, 1999. *General Recommendation No. 12.*

3. The right to water in Namibia

The Namibian Constitution does not have a specific provision providing for the right to water in the country. In other African states, the right to water has been incorporated into national instruments. For example, the right to water is embedded in the Bill of Rights in Section 27 (1) (b) of the South African Constitution. It states that everyone has the right to have access to sufficient water. Article 12 of the Zambian Constitution maintains that the State shall endeavour to provide clean and safe water. According to Article 90 of the Ethiopian Constitution, every Ethiopian is entitled, within the country's resources, to clean water.

The preamble to the Namibian Sixth Draft Water Resources Management Bill of 2001 explains the Government's overall responsibility for and authority over the nation's water resources and their use, including equitable allocation of water to ensure the right of all citizens to sufficient safe water for a healthy and productive life and the redistribution of water. The Act now stipulates in section 25 that:

> 25. (1) Without derogating from the provisions of any law relating to public health, the Minister responsible for health must ensure that the water supply is healthy and safe for all Namibians.
> (2) For the purposes of health and safe water supply under this Act, the Minister [of Agriculture, Water and Rural Development]must assist the Minister responsible for health in -
> (a) the development of standards of healthy and safe water supply, including maximum levels of concentration of waterborne contaminants;
> (b) the development and maintenance of the capacity to test, monitor and verify the quality of any water supply;
> (c) the establishment and maintenance of such laboratories as are necessary to assure the quality of any water supply, including the development of certification and licensing requirements for water laboratory technicians; and
> (d) the development of criteria for the quality of recycled water which ensure that such water is safe and suitable for its intended use.

In more general terms, the human right to water derives from the right to life, the right to livelihood and the right to health. It has evolved through piecemeal international, regional and national law-making. It is recognised in Article 24 of The Convention

on the Rights of the Child (CRC) explicitly stating that the child has a right to clean drinking water.[342]

Article 14(2)(h) of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) states that rural women have a right to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications on an equal basis with men. Article 15 of the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa on the right to food[343] obliges States Parties to "provide women with access to clean drinking water, sources of domestic fuel, land and the means of producing nutritious food". The human right to water is also recognised in the United Nations Convention on the Law of Non-Navigational Uses of Watercourses.[344] The SADC Protocol on Shared Water Course Systems of 1995 emphasises equitable utilisation of shared water courses applying existing customary international law and community interest taking into account, among other things, the environmental, social and economic needs and the impact of intended uses of the water course.[345]

4. Delimitation of water rights

In the light of the above, and in the light of the provisions of the Water Supply and Sanitation Policy (WASSP), it can be fairly said that the 2004 Act aims at ensuring equitable access to water resources by every citizen, in support of a healthy and productive life, and access by every citizen, within a reasonable distance from their

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[342] Article 24.
[343]. The Protocol was adopted by the 2nd Ordinary Assembly of the African Union, Maputo, 11.July 2003.
[344]. The statement of understanding states that in determining vital human needs in the event of conflicts over the use of water courses special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation.
[345] Article 2.

place of abode, to a quantity of water sufficient to maintain life, health and productive activities. Section 3 of the Water Resources Management Act 24 of 2004 (the 2004 Act) stipulates that the Act must be interpreted, and be reasonably and fairly applied, in a manner that is consistent with and promotes the essentiality of water in life, and safe drinking water as a basic human right.

Does this mean that there is a right to water in Namibia? What does the right to water mean in the first place? The first point to emphasise in the context of this chapter is that water rights, as the term is commonly understood, have nothing to do with the so-called 'right to water', a putative human right which is claimed to exist either as a right in itself or as an ancillary aspect of the 'right to food' created in Article 11 of the International Covenant on Economic, Social and Cultural Rights.[346] Nor should water rights be confused with provisions contained in progressive constitutions such as the 'right of access to water' found in the South African Constitution.[347] The Namibian Constitution does not provide for the right to water.

Instead, water rights are concerned with the removal (and subsequent use) of water from the natural environment or its use in that environment. In essence, according to Hodgson,[348] a water right is a legal right:

- to abstract or divert and use a specified quantity of water from a natural source;

[346] Article 11 of the International Covenant on Economic, Social and Cultural Rights provides that everyone has a right to an adequate standard of living for himself and his family including adequate food, clothing and housing. The "Right to water" was developed in General Comment 15 on the Covenant by the Committee on Economic, Social and Cultural Rights. Such "General Comments" constitute authoritative interpretations of the provisions of the Covenant to clarify the normative contents of rights, States', parties' and other actors' obligations, violations and implementation of the rights at national level. See FAO, 2003.
[347] Section 24 of the South African Constitution.
[348] Hodgson, S. 2004. *Land and Water – the Rights Interface.* Geneva: Food and Agriculture Organization of the United Nations, p.14.

- to impound or store a specified quantity of water in a natural source behind a dam or other hydraulic structure; or
- to use water in a natural source.

But water rights frequently go beyond an entitlement to a mere quantity of the simple chemical compound which is water; the flow of the water is also an important component of a water right.[349]

Historically, much of the focus of water law, and thus conceptions of water rights, has been based on rights to abstract and use water from streams and rivers, more specifically from the abundant and perennial streams and rivers of Europe.[350] This, as will be seen, has had, and indeed continues to have, implications for the export of European notions of water rights to countries with vastly different climatic and hydrological conditions. For example, apart from the rivers that form part of its northern, southern and north eastern borders, Namibia has only temporary rivers which may only last a few hours or days following periods of intense rainfall. Furthermore, while groundwater is now commonly included in water rights regimes,

the right to water as provided for in the 2004 Act seems to be based on the concept of the hydrologic cycle, the notion that water in its natural state is in constant motion. In this light, the 2004 Act regulates the abstraction and use of water in almost all its states with emphasis on water in the rivers, rainwater and ground water. Groundwater got so much attention mainly because of Namibia's dependence on groundwater. The hydrological map of Namibia shows that most areas in Namibia have no groundwater. Hence the existing aquifers should be utilised sustainably.

[349] Ibid.
[350] Ibid.

5. Right to water: a second generation right?

Does the 2004 Act regard water rights as first generation rights or not? The right to water in Section 3 of the 2004 Act, is couched in a guideline for the interpretation of the Act. it is only in the interpretation of the Act that water should be taken as a basic human right. The question arises regarding whether the user of the Act will consider this right as a first generation right or not. Water as a human right has been most actively pursued under the terminology of economic, social, and cultural rights, but trends towards 'participation', especially the incorporation of local communities in Community Based Management (CBM) programmes, have more firmly bracketed water rights within the discourse of civil and political rights.

The UN has always considered these two branches of 'rights' as indivisible and inalienable. The South African Constitutional Court has made it clear that any claim based on socio-economic rights must necessarily engage the right to dignity. In *Government of the Republic of South Africa and Others v Grootboom and Others* [351] the Court declared:

> The proposition that rights are interrelated and are all equally important is not merely a theoretical postulate. The concept has immense human and practical significance in a society founded on human dignity, equality and freedom. It is fundamental to an evaluation of the reasonableness of state action that account be taken of the inherent dignity of human beings. The Constitution will be worth infinitely less than its paper if the reasonableness of state action concerned with housing is determined without regard to the fundamental constitutional value of human dignity. Section 26, read in the context of the Bill of Rights as a whole, must mean that the respondents have a right to reasonable action by the State in all circumstances and with particular regard to human dignity. In short, I emphasise that human beings are required to be treated as human beings. This is the backdrop against which the conduct of the respondents towards the appellants must be seen.

The same interpretation can be had under Namibian law. The basic human right to water in Section 3 of the 2004 Act should be understood to be an all encompassing

[351] *Government of the Republic of South Africa and Others v Grootboom and Others* 2001 (1) SA 46 (CC); 2000 (11) BCLR 1169 (CC) at para 83.

right – it illuminates all generations of rights, and hence can be regarded as a sui generic right. This means that this right can be enforced directly against the State. Each time an applicant approaches the courts claiming that his or her right to water as a socio-economic right has been infringed upon, the right to dignity is invariably implicated. The above holds in so far as we consider that Namibia has the obligation to respect, protect and fulfil this right. [352] The obligation to respect, protect and fulfil rights cuts across urban and rural water supplies and services. The obligation to respect includes a duty to refrain from interfering arbitrarily with customary or traditional arrangements for water allocation, unlawfully polluting water or destroying water services and infrastructure during armed conflicts.[353] Taking note of the duty in Article 1, paragraph 2, of the Covenant, which provides that people cannot be deprived of their means of subsistence, States parties should ensure that there is adequate access to water for subsistence farming and for securing the livelihoods of indigenous peoples. This aspect of the human right to water is also expressed in the Statement of Understanding accompanying the United Nations Convention on the Law of Non-Navigational Uses of Watercourses,[354] which affirms that in determining vital human needs in the event of conflicts over the use of watercourses special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation.

The inclusion of the right to water in the 2004 Act is a welcome development. It brings a new paradigm to the way water law will work in the country. This reform

[352] Ruppel, OC. 2008. 'Third generation human rights and the protection of the environment in Namibia.' In Horn, N. and Bosl, A. *Human rights and the rule of law in Namibia*. Windhoek: Macmillan Namibia, pp.101-119.
[353] United Nations Committee on Economic, Social and Cultural Rights, 1999. *General Recommendation Number* 15, 23 and 24.
[354] A/15/869 of 11 April 1997.

process complies with recommendations by international organisations. The emerging literature on the human right to water by the World Bank and the World Health Organization (WHO) suggests a paradigmatic change.[355] The question however arises as to whether the 2004 Act is conscious of the plurality of legal codes in the country.

6. Reform of water rights in a pluralistic society

6.1 Water law reform and human rights in Namibia

It seems that Namibia's water reforms were conducted principally with the four Dublin principles[356] in mind rather than the human rights frameworks also available. The core of Namibia's water reform rested on increasing access to water while ensuring the productive use of water.[357] New participatory structures were created to increase access to water management decision-making.[358] These are called Water User Associations and Water Committees. The extent to which these institutions realise the rights of the people is questionable and will be discussed in detail below.

In Kavango the borehole system was set up, whereby the government would manage the water point where the borehole and pump are, and will after a certain period officially hand over all the facilities to the community to manage. This was done with the help of donor agencies, to introduce irrigation to one of the farming communities

[355] WHO/World Health Organization. 2003. *Right to Water.* Health and Human Rights Publication Series; no 3, New York: World Health Organization; Salman, S. and McInerney-Lankford, S. 2004. *The Human Right to Water. Legal and Policy Dimensions*. Law, Washington, D.C.: World Bank.
[356] The four Dublin Principles are: (1) Freshwater is a finite and vulnerable resource, essential to sustain life; (2) water is an economic and social good; (3) Water development and management should be based on a participatory approach involving users, planners and policy-makers at all levels; and (4) Women play a central part in the provision, management and safeguarding of water. The thinking behind these principles has been incorporated into policy documents authored by the World Bank and other donor organisations. See, World Bank. 1993. *Water Resources Management:* A World Bank Policy Paper. Washington, DC; World Bank. 2002. *Bridging Troubled Waters*. Operations Evaluation Department, Washington, DC. World Bank. 2003. *Water Resources Sector Strategy: Strategic Directions for World Bank Engagement.* Washington, D.C.: World Bank.
[357] Fieldnote, 6 and 7.
[358] Fieldnote, 3.

in the area.[359] After the withdrawal of donations or after the expiry of the period for sponsorship and the complete hand over of the water points in Epingiro 1 and 2 and in Kapako, the respective communities had a hard time getting enough funds to maintain the boreholes and buy fuel for the operation of the diesel operated pumps.[360] This means that the communities sometimes go for a week or so without water, resulting in a subtraction from their right to water. Some of the breakages are regarded by the government as 'minor', and therefore the people should solve the problem themselves, without reckoning that the so called 'minor' breakages do have 'major' implications on the rights to water of the rural residents in the context of water availability.[361]

In Otjozondjupa Region, lack of water constitutes a serious problem for the local communal farming population – consisting basically of the Herero people, most of whom are entirely dependent on livestock farming for their livelihood.[362] For example, problems of this nature are experienced by communal farmers from Okamatapati Village in the Otjozondjupa Region. These communal farmers alleged that they are sometimes made to pay up to N$6 000 per month for water, failing which, their water supply is often cut off by Namibia Water Corporation (NamWater).[363]

In Okamatapati Settlement Area, the residents are complaining about the water bills from the government or more specifically from (NamWater).[364] The government

[359] Fieldnote, 9.
[360] Fieldnote, 9 and 86.
[361] Fieldnote, 9 and 55, 57 and 59.
[362] McClune, J. 2004. *Water Privatisation in Namibia: Creating a new Apartheid?* Windhoek: Labour Resource and Research Institute (LaRRI). Fieldnote, 34 and 35.
[363] Fieldnote, 66, 67, 68, 85 and 88.
[364] Fieldnote, 26, 27 and 88.

created NamWater in 1999 to take charge of the supply of water to customers in bulk. In terms of the Namibia Water Corporation Act (NamWater Act), water should be regarded as an economic good. Furthermore, NamWater Act specifies that NamWater bulk water supply must be operated on a full cost recovery basis, meaning that water is a commodity which is priced at its true cost to include operational and maintenance costs.

Okamatapati residents would like free provision of water.[365] They say that they were told that water is a right; if that is so, then they should not pay for it.[366] Instead the State has to make sure that taxpayers' money or donations cover the costs of water supply.

> How can we [be] subjected to this situation? They (government officials) tell us that water is our right but they charge us for water. We want free water. The South African government was bad in many respects but it was good also because they gave us water for free. Now we are independent we feel colonised because we are made to pay for something which was free before. The government is failing us.[367]

Some feel that the government created NamWater in order to take money from the people.

> Namwater is cheating the people here…Water should be for free. The government created this company and promised that things will be better but we are suffering even more.[368]

The above position shows that the rural residents view the government as not fulfilling their right to water. As regards the duty to fulfil rights under international law, the State must, to ensure that water is affordable, adopt measures including: a) use of a range of appropriate low-cost techniques and technologies; b) appropriate pricing policies such as free or low-cost water; and c) income supplements. A total abolition of payment may not be feasible at the moment, but it should be noted that

[365] Ibid.
[366] Fieldnote, 27.
[367] Fieldnote 88.
[368] Fieldnote 27

any payment for water services has to be based on the principles of equity, ensuring that these services, whether privately or publicly provided, are affordable for all, including socially disadvantaged groups. Equity demands that poorer households should not be disproportionately burdened with water expenses compared to richer households.[369] This has implications for the implementation of the user pay principle which has become ubiquitous in both urban and rural settings.

The right to water includes the right to clean and accessible water. In Ohangwena, specifically in Eenhana Constituency in Embidi Dakapuka Village, the residents have problems of frequent breakages of the pipeline.[370] They then resort to drinking dirty water from hand dug wells.[371] The picture below shows one of the wells, with very dirty and little water, on which the residents were depending at the time the researcher visited the area. At this time, the water point was broken and the regional office of the MWARD had taken more than 10 days to respond to the predicament.

Figure 15a: A hand dug well in Embidi Dakapuka village – Ohangwena Region

[369] United Nations Committee on Economic, Social and Cultural Rights, 1999. *General Recommendation No.*15, 26 and 27
[370] Fieldnote 36 and 37.
[371] Ibid.

Source: Clever Mapaure 2009.

Similar blows on the rights of people to clean water are experienced in Kavango in areas along the Kavango River. These people drink water from the river because there are no boreholes in their areas.[372] In Sivara Village in particular there is only one borehole which was drilled for the school, not for the community. Sometimes community members are allowed to fetch water therefrom, but the problem is that the water is saline and not pleasant to drink or to prepare traditional beer and *oshikundu* (soft traditional drink). [373]

In Okakarara, especially in Ohakane Village just outside Okakarara town, some community members are unable to pay for water supplied by the Town Council to the village residents.[374] The Town Council cuts off the supply in case of non payment. In such cases, the affected people go and buy water from their neighbours.

[372] Fieldnote, 82, 83 and 84.
[373] Fieldnote, 52 and 53.
[374] Fieldnote, 73.

> This water you see here I am not the only one who uses it. This old meme sitting there is my neighbour and she gets water from here and my husband pays for that. She used to buy but was struggling with the money so we do help her. Some people go and fetch water from the well we dug long time ago this side.[375]

This is another way people's right to water is affected in various ways. The well being referred to is shown in the picture below.

Figure 15b: A hand dug well in Ohakane village – Otjozondjupa Region

Source: Clever Mapaure 2009.

The practice of digging wells to cover the gap where the government fails to fulfil its obligations is indicative of the social adaptive capacity of the affected communities. The pictures above are an expression of customary rights to water and the social adaptive capacity of rural communities.

[375] Fieldnote, 72.

It is not surprising that rural communities resort to dirty water in the river or in hand dug wells in times of lack of water at water points created by the government. This can be regarded as an exercise of customary water rights. Burchi[376] explains this point by saying that customary water rights are frequently rooted in customary land law, i.e. the body of rules and practices which govern access to and tenure of land. Burchi examines the situation in Nigeria, where a customary grant of land generally confers rights on water resources, among other products of the soil.[377] After a study of traditional communities in Canada, Nowlan[378] says that customary water rights have been implied by the courts in aboriginal title to land, in treaty-based land rights, in land reserve rights, and in common law land-based riparian rights explained in Chapter 2 above.

In Ghana, until enactment of the Water Resources Commission Act of 1996, customary water rights were, by and large, regarded as part of land rights.[379] In Indonesia the new Water Resources Law's provisions on the "traditional rights" of local communities are ostensibly directed at land rights, and, only by implication, at the water rights which accrue from them.[380] These salient features of customary water rights are not devoid of legal implications when it comes to their interface with

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[376] Burchi, S. 2005. The interface between customary and statutory water rights – a statutory perspective. In B. van Koppen, J.A. Butterworth and I.J. Juma (eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.1.

[377] Ibid.

[378] Nowlan, L. 2004. *Customary Water Laws and Practices in Canada*. Rome: Food Agricultural Organisation, p.18-19, 20 and 22.

[379] Sarpong, G. 2004. Going Down the Drain? Customary Water Law and Legislative Onslaught in Ghana. Rome: Food Agricultural Organisation, p.8.

[380] Burchi, S. 2005. The interface between customary and statutory water rights – a statutory perspective. In B. van Koppen, J.A. Butterworth and I.J. Juma (eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.2.

statutory water rights, and with modern water legislation which severs the land-water link and de-couples water rights in general from the land.[381]

6.2 Rights to clean water and water quality

The researcher found a rather surprising situation in Kavango Region, specifically in Sivara Village where people do not have boreholes managed by water committees like 'inland' Mbunza area. The residents of Sivara Village, and those of Sakwiza Regina Village who are settled along the Kavango River, have a problem getting clean water. Sivara Village residents say:

> There are no boreholes here. We do not have pipeline like the rest of the people in Owamboland. They [government officials] are discriminating. Wambos are getting clean water from NamWater or from good boreholes but the government does not want to drill boreholes for us here. We thank God for giving us this river here. Otherwise we would die.[382]

This statement is premised on the fact that the only available boreholes in the area were drilled for the schools and the teachers at the schools lock them at will. In addition, even if there are school boreholes that are sometimes open for the villages nearby to access, the villagers regard that water as saline and bad for consumption. Without reservation they blame the government:

> Look, the water in these boreholes is very salty; we cannot prepare our beer with it. the government can say that they have brought us water, but we say there is no water because even our children at that school do not drink it. They come home to drink what we get from the river. The government has been purifying borehole water for the Herero and their cattle, but we are forced to drink water from the salty borehole.

Attempts to get the statistics about water quality in the Kavango River proved to be unproductive. One engineer at NamWater, which tests water quality in the country, said:

> We do not know what the quality of water in Kavango River is. It is very difficult to determine what quality it is because a river gets more polluted as it flows down the course and worse polluted when it passes an urban area like Rundu, it may get more pollution. So water

[381] Ibid.
[382] Fieldnote, 83.

> up the stream may be cleaner than water up the stream. We may only get statistics for specific points but as for now I do not know.[383]

This statement may be taken to imply that NamWater has not tested the water in the Kavango River to see whether it is safe for drinking or is not. Although the Governor of the Kavango Region does not have a problem with consuming water from the river, he acknowledges that it may not be safe for drinking:

> Even myself, when I go to my constituency I can take a cup and take water from the river and drink. We have been doing it for years, and people do not fall sick. However we encourage people to boil their [river] water before they drink it so that they do not get diseases. It is difficult, but some people listen to our advice.

The World Health Organisation of the United Nations says that lack of access to safe water has a major effect on people's health.[384] Furthermore, poor health constrains development and poverty alleviation. Poor water and sanitation have an impact on education, but when safe water and appropriate sanitation are provided in schools, increased attendance and a reduction in drop-out rates results.[385]

A similar situation is happening in Ovikango Village in Otjozondjupa Region, where residents are drinking water from a nearby water point where water is drilled from a borehole. This water however turns yellowish after a few hours of settling in a container. This, to the residents of Ovikango, is a health threatening issue.[386] This situation has to be redressed. Otherwise the rights of the residents are frequently violated.[387] Mr. Ngutonua, the Control Officer in the Ministry of Agriculture, Water and Rural Development promised to look into this issue and he concluded that if the water turns yellowish within hours, then it must have a lot of sulphites, which are not good for human health.

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[383] Fieldnote, 6.

[384] WHO/World Health Organisation. 2003. *Right to water. Health and human rights publication series; no. 3.* New York: World Health Organisation.

[385] Ibid.

[386] Fieldnote, 25, 71 and 81.

[387] Fieldnote, 13 and 81.

Figure 16: Traditional Councillor Nguvapewa Jesaya (fieldnote 25) standing by the side of the unclean water point pump in Ovikango Village.

Source: Clever Mapaure 2009.

What the Ministry of Agriculture can do for the residents of Ovikango therefore is that there can be a study of the geology and pedology of the area to see where there may be fewer sulphites.[388] If they find an area where it is better, then they will drill another safe borehole.[389] In this regard Mr. Nguotonua promised to take up the matter with his ministry and expects prompt responses before the situation in Ovikango affects people's lives or their livestock.

6.3 World standards

According to WHO, ensuring that access to sufficient safe water is a human right constitutes an important step towards making it a reality for everyone. [390] It means that:

[388] Fieldnote, 13.
[389] Ibid.
[390] Ibid, p, 9.

- fresh water is a legal entitlement, rather than a commodity or service provided on a charitable basis;
- achieving basic and improved levels of access should be accelerated;
- the "least served" are better targeted and therefore inequalities decreased;
- communities and vulnerable groups will be empowered to take part in decision-making processes;
- the means and mechanisms available in the United Nations human rights system will be used to monitor the progress of States Parties in realizing the right to water and to hold governments accountable.[391]

In 2000, the United Nations Committee on Economic, Social and Cultural Rights, the Covenant's supervisory body, adopted a General Comment on the right to health that provides a normative interpretation of the right to health as enshrined in Article 12 of the Covenant. This General Comment interprets the right to health as an inclusive right that extends not only to timely and appropriate health care but also to those factors that determine good health. These include access to safe drinking-water and adequate sanitation, a sufficient supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health-related education and information. It seems the government of the Republic of Namibia has not met these benchmarks.

In 2002, the Committee further recognised that water itself was an independent right. Drawing on a range of international treaties and declarations, it stated: "The right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival."[392]

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[391] Ibid.
[392] Ibid.

In this light, the government of Namibia has the responsibility to respect, protect and fulfil the right to water. This should not only be in Namibia, but also the government has the international obligation to cooperate with other states to ensure that the right to water is achieved everywhere, [393] for example in the whole of SADC or Africa. This means countries must make certain that their actions do not deprive individuals of the right to water in other parts of the world. Examples include cooperating with respect to transboundary watercourses, preventing pollution, and refraining from imposing sanctions on goods and services needed to ensure the right to water.[394] Steps should also be taken to ensure that sufficient financial and other aid is given to other countries, to accelerate coverage improvement beyond that possible with limited domestic resources. Finally, States Parties should ensure that the right to water is given due attention in international agreements. The topic of international watercourses is not included in this research and may be recommended for further research.

6.4 Water law and sector reform and gender rights

The 2004 Act creates water committees which manage the day to day activities of the local water user association, including financial matters. The Act is, however, silent about the composition of the water committee. It instead refers this matter to the respective constitutions of the water committees. The water committee constitutions are drafted by the Ministry of Agriculture, Water and Rural Development, Department of Water Affairs and given to the water committees to use. The constitutions are the same and are all silent about the gender balance in the structures of the committees.

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[393] WHO, p.31
[394] Ibid.

The exclusion of a gender provision in the constitutions of water committees violates the rights of women, especially since most rural communities in Namibian or sub-Saharan Africa are patriarchal. Gender is not a synonym for women, but because women are structurally disadvantaged in the majority of the world's cultures, it is prudent to address this structural disadvantage as a priority issue. Due to gendered responsibility for social reproduction, gender is fundamental to the issue of water as a human right.

In the three studied regions, most communities are patriarchal, and therefore property is used along such lines. Furthermore the water committees and traditional institutions involved in natural resource management do not have balanced representation, as men tend to dominate in most committees. Decisions emanating from such institutions may not be sensitive enough to women. Men also dominate decisions concerning investment, use and conservation of natural resources in general in the researched areas. Women have the traditional obligation of securing the family's food supply, while men concentrate on income generating activities in most cases. Even though men and women may have equal chances to access common resources (e.g. land and water), women have very little control over their use and benefits accruing from the resources.[395] Strict, gender-specific division of labour, in which specific roles are declared men's only, while others are women's only, is common among many communities.

[395] Ong'or, DO. Ogwae, TA. Omondi, MO and Kapiyo, RJ. 2001. Community conservation initiatives towards livelihood security in the lake Victoria Basin: Issues, problems and opportunities. *A proceedings report;* Kisumu: UHAI. Lake Forum.

Where access to water is contingent on property rights in land, women may find it difficult accessing water for commercial but not domestic uses. Among those communities where women have been inheriting land from their parents, like the Baganda,[396] the problem remains as to how they can assert exclusive rights to such lands. Portions of gendered productive rights to water can be neglected by bureaucratic institutions, largely because 'the poor' water users, and indeed 'women' are viewed as homogeneous groupings.[397] Joshi[398] analyses some generic characteristics central to the failure of 'gender sensitive' water projects, including at an organisational (as opposed to solely at a 'grassroots') level. The failure stemming from the treatment of women as a unitary category leads to further exclusion of marginal people, and a lack of self reflection into gender normalisation erodes the basis for strategic gender empowerment, for example within institutions.[399]

Gender sensitive water management interventions tend to reflect institutional gender practice, which directly impacts upon how effectively gender equality is promoted 'on the ground'.[400] The current practice in Namibia seems to assume that 'all is well' on the ground. Guijt and Shah,[401] and Cornwall[402] critique the fashionable notions of

[396] Nyangabyaki, B. 2002. Politics, legal land reform and resource rights in Uganda. Paper presented at a panel on *The changing Political economy of Land in Africa* at the Nile International conference centre, Kampala.Uganda, December 9-12, 2002. On file with researcher.
[397] Chileshe, P. Trottier, J and Wilson, L. 2005. 'Translation of water rights and water management in Zambia.' In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria; Van Koppen, B. 1998. *More jobs per drop: targeting irrigation to poor women and men.* The Netherlands: Royal Tropical Institute; Joshi, D. 2002. *The rhetoric and reality of gender issues in the domestic sector. A case study of India.* Unpublished PhD Thesis, Southampton University, UK.
[398] Joshi, 2002, *supra*.
[399] Chileshe, Trottier, and Wilson, 2005, supra, p.7.
[400] Longwe, SH. 1997. 'The evaporation of gender policies in the patriarchal cooking pot.' *Development in Practise* 7(2):148-156; Joshi, 2002, *supra*; Guerquin, F. Ahmed, T. Hua, M. Ikeda, T. Ozbilen, V. Schuttelaar, M. 2003. *World Water actions. Making water flow for all.* UK: Earthscan Publications.
[401] Guijt, I. and Shah, MK. 1998. *The myth of community. Gender issues in participatory development.* UK: ITDG Publishing.
[402] Cornwall, A. 2003. 'Who's voices? Who's choices? Reflections on gender and participatory development. *World Development* 31(8):1325-1342.

participation where it is treated institutionally as though technical management solutions are able to constructively deal with micro and/or macro political issues.[403] External institutions are sometimes faced with the dilemma of whether to address pragmatic or strategic gender needs, but at least theoretically, it should be possible to negotiate with the women, who are, after all, experts in their own lives.[404]

Longwe analyses how extant gender policies can 'evaporate'.[405] There are several dimensions to this process, notably focusing on increasing women's access to resources, not access to decision making structures, and also the tendency for gender to be isolated as a specific issue rather than a cross cutting concern.[406] As Chileshe, Trottier, and Wilson,[407] note conversely, addressing strategic gender needs, for example, increasing women's participation in water committees, can erode practical gender needs such as the informal strategies necessary to gain access to water.[408] In some communities in Namibia this can be even more problematic, where women are encouraged to form 50 percent of the water committee, like in Ekwenye Village in Otjozondjupa, but have no other positions of power in community politics.[409] Hildyard,[410] notes that the relation between gendered water and human rights is rhizomatic, extending to the construction of water scarcity as an overpopulation, or 'cultural' issue. There is some potential for gender to become an integral unit of

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[403] Chileshe, Trottier, and Wilson, 2005, *supra*, p.8.
[404] Østergaard, L. 1992. *Gender and Development: A practical Guide.* UK: Routledge Publishers; Oxford English Dictionary, 1994. Paperback Edition. UK: Oxford University Press; Guijt and Shah, 1997, *supra*.
[405] Longwe, SH. 1997. 'The evaporation of gender policies in the patriarchal cooking pot.' *Development in Practise,* 7(2):148-156.
[406] Chileshe, Trottier, and Wilson, 2005, *supra*, p.7.
[407] Ibid, p.8.
[408] Zwartveen and Meinzen-Dick, 2001, *supra*.
[409] Fieldnote, 32, 34 and 35.
[410] Hildyard, N. 1999. 'Blood, Babies, and the Social Roots of Conflict.' In Suliman, M. (ed) 1999. *Ecology, Politics and Violent Conflict*. London: Zed Books.

analysis within pluralist water legislation at local scales in Namibia although it is ignored at the moment.

It should be mentioned further that gender is the third pillar of the Dublin Principles, and water law and sector reforms should be gender sensitive. "Gender is a constitutive element of social relationships based upon perceived differences between the sexes, and a primary way of signifying relationships of power."[411] If the various components of water rights 'bundles' are explicit, then it becomes more clear as to how pragmatic and strategic gender needs could be met, for example in targeting irrigation governance systems to account for, implement appropriate policies, and monitor gendered divisions in the use, allocations, and control of water. This is dependent upon institutional norms and perceptions of gender and relies to a great extent upon a reflexive and self-critical institutional culture, as uncritical and uniform gender strategies are viewed as ineffective.[412] Gender politics crucially determine the social scarcity of water.

7. Customary rights to water versus legislative rights to water

7.1 Setting and context

In most rural communities in Namibia at least the communities which formed part of this research have their own perceptions of rights to water, which are closely linked to their land title or occupancy. The community obtains no formal rights to water for their domestic purposes, even though the volumes used in domestic activities are substantial. As shown in Chapter 5 above, most rural community members do not

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[411] Jacobson, R. 1999. 'Complicating 'complexity': integrating gender into the analysis of the Mozambican conflict.' *Third World Quarterly – Journal of Emerging Areas* 20(1):175-183, p.175.

[412] Zwarteveen, M., and Meinzen-Dick, R. 2001. 'Gender and property rights in the commons: Examples of water rights in South Asia.' *Agriculture and Human Values* 18(3):11-25; Joshi, 2002, *supra*.

regard the State as the owner of water. The claim of the State over natural resources or water in general is to them a neglect of customary land rights and anything attached to that land.[413] The public trusteeship principle introduced by the 2004 Act over water resources has not yet been accepted, since communities attach their occupancy over communal land to ownership of such land and the resources on it.

In African tradition, the water-life relationship is present in the founding myths of every culture.[414] The flood theme is prevalent in all three monotheistic religions, but, contrary to customary belief, did not necessarily originate in, and is certainly not confined to, the Judeo-Christian-Islamic tradition. It is also found in the Hindu "vedas", in the Inca stories, in all the myths of Mesopotamia ("the Earth between two floods") and in the animism of African societies. The founding myths influenced cultural behaviours and brought the notion of water as a sacred element. The cultural dimension is certainly indispensable and helps us understand the various conflicts emerging around water and, eventually, to find pacific and fair solutions for its sharing and use.

In Ohangwena, Otjozondjupa and Kavango Regions, water is regarded as foundational to human survival. Thus whatever negatively affects its availability affects human livelihoods.[415] Furthermore, water is attached to land, and therefore the decoupling principle does not apply. In Otjozondjupa one respondent had to say:

> Unless water is supplied by an outside person [agent] it comes from my plot, thus is my water. Therefore if anyone out there wants me to give him a share of this water, I can readily give him. Water is for us all although we can drill boreholes using our own money. [416]

[413] Fieldnote 70 and 71.
[414] Responses from Fieldnote, 82, 83 and 84 show this position.
[415] Fieldnote, 17, 40, 46 and 79.
[416] Fieldnote, 67.

In Ohangwena one respondent summed it all up:

> We have the land, yes, and with that we own all that comes with the land. Water is part of the land… you cannot ask me who owns water if a private borehole is on my land or homestead. I own the land and I own the water as well. If it is a borehole on the open communal land, then the whole community owns it not an individual. People own private of tax because they apply for that … that is not according to our customary law. Our traditional laws say that we own all the water in this ground, but when NamWater brings water here, then that water does not come from our ground. This means that the water belongs to NamWater not us, because it was pumped somewhere.[417]

Theoretically therefore, customary water law and rights can co-exist alongside statutory water law and rights to water, as two separate systems and bodies of law, mutually impermeable. This proposition, however, is untenable in practice, as the two systems are bound to intersect and interact, in space and time. They do so, particularly where a country's legislature adopts legislation providing new rules of water resources appropriation, use and protection. The 2004 Water Act does not make this clear, but it should be mentioned that as the 2004 Act invariably upsets pre-existing rules, be they of customary or of statutory origin, and the rights operating under these rules, the enactment of such new legislation inaugurates a transitional period of intense interaction of the new and the old sets of legally binding rules, during which mutual adjustment of the old rules and rights to the new rules, but also of the latter to the former, is pursued and generally achieved, as smoothly and painlessly as permitted by the rules provided to this specific end by the new legislation.

Section 1 of the 2004 Act recognises the “customary rights and practices” which in terms of the section, means such rights and practices in relation to water resources management and utilisation as have been exercised and practiced by any given community for years. This provision connotes the lawmakers’ will to accommodate *en bloc* customary water rights alongside statutory water rights. However, in terms of

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[417] Fieldnote, 48.

the common law, and in particular the case of *van Breda v Jacobs,*[418] for customary water law in Namibia to qualify as customary, it must be proved that these uses are ancient, certain, reasonable and continuous. It is unclear to what extent customary uses of water would meet this standard since the concept of boreholes is a relatively new development which came with the 1956 Act, but the concept of hand dug wells and *iishana* (natural water ponds) was not. Thus it is the burden of the communities concerned to prove the existence of customary use. To complicate matters, Namibia's Act provides no definition of the exact scope of this term, nor is there any case law that would help.[419] A similar approach is reflected in Indonesia's new Law on Water Resources, adopted in March 2004, to replace the previous Law on Water Resources of 1974.

Guidance can be sought from the decision in *Kaputuaza and Another v Executive Committee of the Administration for the Hereros and Others,*[420] where Bethune J. drew a distinction between customs and customary law and held that the former needs to be proved, but the latter not. The learned judge said (p. 301 H-I):

> The customs observed in the reserve (as opposed to customary law) can be proved in the same manner as any other customs, i.e. by ordinary persons who have knowledge of the nature of the customs and the period over which they have been observed. It has authoritatively been held that the party relying on such a custom must prove it beyond reasonable doubt.[421]

In the *Kaputuaza* case the court had to deal with water and grazing rights in a certain area in the Epikuro Reserve and consulted and analysed several authoritative works on Herero customary law. In *Kamuhanga v Alexander Kamuhanga and 7 Others*[422] it was held that to prove a custom may require more than one witness who has

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[418] 1921 AD 330. 82 p.333.
[419] This discussion is based on Janki, M. 2004. *Country Study on Customary Water Law and Practices in Guyana.* Rome: FAO/IUCN Research Project, p.9.
[420] 1984 (4) SA 295 (SWA).
[421] *Van Breda and Others v Jacobs and Others* 1921 AD 330 at 333.
[422] Unreported case number [P] A 237/ 2006

knowledge thereof. Throughout the ages the quantity of such witnesses has been undetermined. The well-known Roman Dutch writer, Voet, also expressed an opinion thereon. This issue has been described by Solomon JA in *Van Breda and Others v Jacobs and Others*,[423] cited above in the following words:

> Now it is scarcely necessary to point out that the onus of establishing the existence of such a custom lies upon the plaintiffs and that it must be clearly proved. There was a difference amongst the Roman-Dutch authorities as to the number of witnesses required to prove a custom. Some thought that two were sufficient; others were of the opinion that there should be a turba of witnesses, not fewer than ten. Voet, 1.3.34, thinks that the latter is the better opinion, remarking that if a custom is in existence there can be no difficulty in securing a large number of witnesses to depose to it. I think we should refrain from laying down any fixed rule on the subject, as the requisite number of witnesses might very well vary with their character and with the nature of the custom which is set up. Much must in every case be left to the discretion of the Court, which, however, must be satisfied beyond any reasonable doubt that the alleged custom does in fact exist. It is desirable, however, to add that it is better for him who sets up a custom to err on the side of calling too many rather than too few witnesses.[424]

From the decisions by the courts it is clear that, although the Court has discretion, a custom must be proved by the person who relies on its existence. The Court does not know what the custom is, and the more witnesses who can testify to it, the better. The onus is also a heavy one, namely the proof must be beyond reasonable doubt. This is understandable, because the Court must be convinced that such a custom is in existence.

In the light of the above therefore, in countries where customary law and customary water rights play a significant role, particularly in rural areas where they govern access and rights to water for basic human needs, for the watering of livestock and for subsistence agriculture, customary law and customary water rights are a factor to be reckoned with when preparing “modern” legislation regulating the abstraction and use of water resources through government permits or licences. Failure to recognise the existence and resilience of customary practices, and to take them into account in

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[423] 1921 AD 330
[424] at 333.

'modern' water resources legislation, is a recipe for social tension. This tension was discussed in more detail in Chapter 5 above.

7.2 The intersection of rights: Customary and legislative

The 2004 Act provides for criteria upon which licence to abstract and use water may be issued. These criteria are plural conscious. A person may apply for the right to abstract water, but in terms of Section 35 of the Act, in deciding whether a licence to abstract and use water should be issued, the Minister of Agriculture Water and Rural Development must consider the existence of any traditional community and the extent of customary rights and practices in, or dependent upon, the water resource to which an application for the licence relates. In terms of Section 39 of the 2004 Act, the right to abstract water is issued subject to the protection of the environment and water resource from which the abstraction will be made, the stream flow regime, and other existing and potential use of the water resource, including uses by virtue of customary rights and practices.

In addition, in terms of Section 46 of the 2004 Act, the permit to drill a borehole or to engage in a borehole drilling programme may be issued by the Minister of Agriculture Water and Rural Development after the Minister has considered among other factors the existence of any traditional community and the extent of customary rights and practices in, or dependent upon the water resource to which the application relates.

It can be proposed from the paragraph above that theoretically, customary water law and statutory rights can co-exist alongside statutory water law and rights, as two separate systems and bodies of law, mutually impermeable. This proposition, however, is untenable in practice, as the two systems are bound to intersect and

interact, in space and time. They do so particularly where a country's legislature adopts legislation providing new rules of water resources appropriation, use and protection. As such, legislation like the 2004 Act invariably upsets a pre-existing body of rules, be they of customary or of statutory origin, and the rights operating under these rules. Enactment of such new legislation as the 2004 Act inaugurates a transitional period of intense interaction of the new and the old sets of legally binding rules, during which mutual adjustment of the old rules and rights to the new rules, but also of the latter to the former, is pursued and generally achieved, as smoothly and painlessly as permitted by the rules provided to this specific end by the new legislation.[425]

Once this time-limited transitional process is over, opportunities for intersection and interaction will continue to arise. This interaction will take place to the extent that the pre-existing body of customary rules and practices controlling water resources appropriation and use, particularly in the rural areas, and the rights operating under them, survive new legislation and the ensuing adjustment process.[426] Customary rights become then an important factor to be reckoned with and taken into account by government in the administration of legislation inaugurating water abstraction licensing, and, in particular, in the process of disposing of applications for the grant of a licence, and thereafter during the life of a water abstraction licence.[427]

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[425] The relevant clauses are generally found at the end of any new statute, under the label of "transitional provisions" - i.e. provisions of limited duration, designed to ensure a smooth transition from the old to the new system of water resources dispensation over a set period of time. Once this is over, the "transitional provisions" become void.
[426] Burchi, 2005, *supra*, p.8. says that in such situations survival may be due to a variety of factors, ranging from the deliberate will of the lawmakers to accommodate *en bloc* customary rules and practices at one end of the spectrum, to the deliberate resistance of water users to the new rules imposed by statute, and a no-enforcement policy of government, at the other end of the spectrum.
[427] Ibid.

When considering the intersection of customary and statutory water rights, it can be said that the relationship between the two culminates in the formal 'recognition' or 'conformation' of customary water rights and in their attraction into the statutory regime of regulated water abstraction licenses and rights inaugurated by the legislation.[428] Burchi says that customary water rights surviving this transitional phase intersect and interact with statutory water rights typically accruing from water abstraction licenses, at subsequent phases:[429]

- the reconnaissance phase of customary rights in the process of disposing of statutorily-regulated abstraction license applications, with a view to the former being reckoned with in this process. Intersection and interaction at this level occur also, and in particular, if customary water rights have gone un-accounted for in the recognition phase mentioned earlier;
- in default, the operating phase of statutory water abstraction licenses, i.e., when these have begun impacting on customary water rights which have gone un-accounted for in the formal recognition and in the reconnaissance stages of these rights, alluded to above. This interaction continues to occur where newly granted statutory rights may interfere with unrecognized customary rights, up until the point of the statute of limitations for making such interference claims, or longer should the judiciary have any discretion.[430]

As has been shown in the chapters above and in Chapter 7 below, the two types of rights are potentially highly conflictive areas of legal intersection and interaction

[428] Burchi, S. 2005. 'The interface between customary and statutory water rights – a statutory perspective.' In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. Pretoria: International Water Management Institute/IWMI, p.7.
[429] Ibid.
[430] Ibid.

between the two water rights systems. Statutory law has responded by availing legal mechanisms to prevent confrontation and to settle formal disputes, and to ultimately seek to reconcile customary and statutory water rights. The statutory responses, however, raise a number of issues, some of which have been identified and briefly discussed.

8. Conclusions

There is a theoretical argument that water rights are not human rights where people live on the margins of citizenhood.[431] There is empirical evidence that could support this argument, but also evidence demonstrating that communities actively stake claim to aspects of their legal human rights from the State by means of water permits.[432] For a successful human right to water approach in Namibia, there would have to be considerable political advocacy, informing people of their legal rights and entitlements. People would then be more empowered to create strategies whereby they may achieve these rights. It is an approach that would take time in Namibia for a variety of reasons, because the legal customary rights of people are not well documented, especially the fact that water is associated with land tenure in customary systems. Chileshe, Trottier, and Wilson say that:

> The advantage of the rights based approach to water is that it theoretically rules out exclusion from needed services according to the ability to pay and gender norms. This is crucial in ensuring the delivery of quality services to poorer people. One of the disadvantages is that a formal rights based approach precludes informal strategies, and therefore could further disadvantage people, particularly women, in the short term.[433]

This chapter has highlighted some of the challenges faced in the plural legislation of water in Namibia. The water rights system remains in the common law realm and is apparently not translated into customary law and local perceptions of water management. The translation here refers to the adaptation of the water rights system

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[431] Manzo, K. 2003. Africa in the rise of rights based development. *Geoforum* 34(4):437-456.
[432] Chileshe, Trottier, and Wilson, 2005, supra, p.10.
[433] Ibid.

in customary settings. The next section draws from another case study, which highlights some results of the local perceptions and the apparent non-translations of water rights.

This chapter has highlighted further that at the grassroots level most rural communities in Namibia see water in terms of survival and a basic human right, which is not necessarily the view at national level or administratively speaking. At national level the drive is to maximise the economic potential of water resources and regard water as a commodity to be sold to everybody who wants to use it and in the process have full cost recovery approaches to water supply even to rural communities. In effect, the legal pluralism debate is part of the wider debate on governance and government not just restricted to water law – this is just a facet of the debate.

It must also be noted that human rights are currently impossible to legislate within systems of governance regardless of scale (i.e. from the World Bank to a small fishing or agricultural community).[434] Despite the fact that *actual* human rights *may be* more effectively realised and promoted within certain governance systems, this is no guarantee that such rights *actually are*, or that they will *continue to be* in an ever more globalising – or fragmenting – world.[435]

In consequence, in Namibian water law, human rights can be legally upheld by democratic approaches to governance, assuming that democracy is defined as a process, or means to an end, rather than an object, or end in itself. Democratic government arbitration of a variety of governance regimes is proven to further

[434] Chileshe, Trottier, and Wilson, 2005, *supra*, p.10.
[435] Ibid.

promote legal and actual human rights to water.[436] In the context of SADC there may be potential for the New Economic Partnership for Development (NEPAD) to partially facilitate a coalescence of fragmented water management in Namibia in the future. According to Chileshe, Trottier, and Wilson,[437] holistically and in the context of this chapter it can be said in that the dynamics of macro level water supply and governance regimes, for example structural adjustment, cost reduction initiatives, and corollary actors such as 'apolitical' international NGOs that are able to override democratic government, tend to erode legal and actual human rights and hinder the evolution of pluralist frameworks.

[436] Wolf, AT. 1998. 'Conflict and cooperation along international waterways.' *Water Policy* 1(2), 251-265; Syme, G. J. Nancarrow, B. E. McCreddin, J. A. 1999. 'Defining the components of fairness in the allocation of water to environmental and human use.' *Journal of Environmental Management* 57(11): 51-70.

[437] Chileshe, Trottier, and Wilson, 2005, *supra*, p.10.

Chapter 7

Thinking beyond the Water Box: the Politics of Namibian Rural Water Supply

1. Introduction

This chapter covers the interactive politics of all stakeholders involved in rural water supply within the context of Namibian water law. It concentrates on the interactions and working relationships among and between various institutions at play in the supply and management of rural water resources and the individual opinions of rural residents. The precise objectives of this chapter are (1) to review analytically the efficiency and functions of the water committees and study the functioning of the participation of Traditional Authorities therein, (2) to examine the apparatus of state institutions like Namibia Water Corporation (NamWater) in rural water supply, management and control, and the impact of such on water accessibility, availability and affordability by rural residents, (3) to examine the people's participation and their liveliness in water management decision making processes, (4) to recommend policy interventions to make the water management institutions more successful, and (5) to examine the effect of decentralisation on rural water supply.

An understanding of the politics of the water sector in Namibia requires an engagement with a series of parallel debates. There is an institutional politics around legitimacy and efficiency within spheres or levels of government. There is tension between a rights-based approach to service provision and the politics of sustainability and conservation. The interplay between these parallel dynamics is about the politics of the Namibian transition to democracy and a demand based water supply system. But Namibia is not an island. So, there is the global water debate, with its human

rights, economic, anti-privatisation/imperialism and environmental dimensions.[438] The focus of this chapter is to provide a conclusive analysis and recommendations based on those conclusions regarding how these different politics are playing out and how they impact Namibians, particularly the poor who have perhaps the most to gain or lose.

2. The politics of payment: Rural Communities and the Corporatisation of Rural Water Supply

2.1 A Brief Historical Note on Water Institutions

As noted in Chapter 4 above, prior to 1990 the South African administration maintained a heterogeneous water market, segmented by geographical location, ethnicity, and level of income, to serve the interests of certain elites like the white commercial farmers.[439] Because of some principles in the Water Act 56 of 1954 (the 1956 Act) which did not comply with some provisions of the new Constitution of Namibia, water access and land tenure became challenges to the newly established Namibian government, which had to find means to fulfil its election promises. The South African regime had relied on Act 54 of 1956, which allowed subsidisation of water provision by the government. It is against this background that the Namibian government had to establish institutions that would better manage and provide water at a cost that is affordable to the consumer.[440]

The 1956 Act focused on the cheap provision of water. Therefore water in almost all the rural areas was provided for free. Karuaihe comments that while this policy may

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[438] Muller, M. 2007. 'Parish pump politics: The politics of water supply in South Africa.' *Progress in Development Studies*, 7(1): 33-45.
[439] Karuaihe, S. 2008. 'The transition to community-based management of rural water points. Experience in Namibia'. In Mapiki A. and Makgetlaneng, S.2008. *Land and water management in southern Africa. Towards better use in semi-arid and arid areas*. Pretoria: Africa Institute of South Africa. pp 217 -239, p.220 .
[440] Ibid.

have been politically popular for the colonial regime, and maybe morally justifiable, it creates the perception among the public that water is cheap and abundant. Seven years after independence, and specifically between 1990 and 1997, the government of Namibia through the Ministry responsible for water supply through the Ministry's Department of Water Affairs, which applied the 1956 Act. in 1992, the first Water Supply and Sanitation Policy (WASP) was adopted. Since then several developments have necessitated a review of Namibian water law. As recommended in the WASP the Namibian Water Corporation Limited (NamWater), a State owned enterprise, was established as the major bulk water supplier.[441]

Also as recommended in the WASP, the Directorate of Rural Water Supply (DRWS) was established in the Ministry of Agriculture, Water and Rural Development to improve access to safe water for communities in rural, communal areas. The establishment of DRWS laid the foundation for a dynamic strategy, known as Community Based Management (CBM).[442] This strategy involves extensive user participation in water supply and management in the form of Water Point Associations, their representative Water Point Committees and Local Water Associations with Local Water Point Committees.

The increasing water demand in both rural and urban areas necessitated that the government look for alternatives to meet this rising demand. This led to the creation of a bulk water corporation – Namibia Water Corporation (NamWater) by an Act of Parliament in 1997.[443] The bulk water corporation, NamWater, formally started its operations in 1998. Since then, bulk water provision has shifted from the central

[441] MAWF/Ministry of Agriculture, Water and Forestry, 2008. Water Supply Sanitation and Sanitation Sector Policy. Windhoek: MAWF/Ministry of Agriculture, Water and Forestry, p1.
[442] Ibid.
[443] Namibia Water Corporation Act of 1997. Fieldnote, 1, 3, 5 and 6.

government through the Department of Water Affairs to NamWater. Up to now NamWater is responsible for bulk water provision to some rural communities in Otjozondjupa and Ohangwena communities.[444]

What normally happens in practice in communities receiving piped water from NamWater is that the DRWS, under the Ministry of Agriculture Water and Rural Development (MAWRD), buys water from NamWater on behalf of its clients, the rural communities. On this note, Karuaihe reports

> In 1998 cabinet initiated a project known as the Namibia Water Resources Management Review to review the operations of the water sector. This project operated under the then MAWRD as a special project to oversee the water management system in the whole country, and was completed in 2004. The main objectives of the project were to identify gaps, problems and challenges within the water sector, and to ensure effective management of the water resources through implementation of policies.[445]

The idea of decentralisation penetrated government planners and the government decided to embark on the decentralisation process by late 1990s. This necessitated consultations among government agencies.[446] After several consultations at regional and national level, the NWRMR recommended the transfer of rural water provision to the regions through the policy of decentralisation of government activities, in the then Ministry of Regional, Local Government and Housing (MRLGH).[447] As a result, the government through the NWRMR produced a National Water Policy white paper, approved by Cabinet in August 2000. This policy stands as a framework for equitable, efficient and sustainable water resource management and water services. Holistically this National Water Policy:

> constitutes a strategy by the government's ongoing Review process to work with all stakeholders in addressing the challenges of Namibia's water resources. It follows the government's resolve to formulate a new water policy as part of a new approach for post-colonial management of water resources and the provision of adequate water in Namibia. The

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[444] Fieldnote, 5 and 6.
[445] Karuaihe, S. 2008, *supra.*
[446] Fieldnote, 7, 8, and 15.
[447] Ibid.

> government is committed to implementing the proposed framework in the context of the needs, priorities, and constraints of the country.[448]

The policy further recommended that Namibia adopt a systematic approach to water resources management, using an integrated, multisectoral framework that considers issues of decentralisation, social equity, ecological protection, and economic growth.[449] After Cabinet approved the white paper, the policy document was referred back to the MAWF in consultation with the Ministry of Justice, to include the relevant regulations that were missing at the time of its approval.

This revised Water Supply and Sanitation Policy (WASSP) of 2008 replaces the policy of 1992. Its principles are in line with Integrated Water Resources Management (IWRM), including a strong focus on Water Demand Management (WDM).[450]

> The scope of services expected to be rendered within the sector is defined and responsibilities are allocated to the various actors and beneficiaries involved. Nevertheless, the acceptance of the WASSP by all stakeholders represents only a foundation from which to work. The productivity and growth of the WSS sector will, to a large extent, depend on political will at all levels, the provision of adequate funding, the continuous development of adequate human resources, community participation and the dedicated implementation of the identified strategies by all role players to achieve the objectives of the policy.[451]

In 2004 the Water Resources Management Act[452] was promulgated to give effect to some of the principles enunciated in the White paper. This Act has not come into force yet, but it is intended to repeal the 1956 Water Act.[453] It is in the context of this new Act – the 2004 Act and the 2000 Water White Paper, which this chapter analyses the politics and interaction of rural water management institutions in the context of the history expounded above.

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[448] MAWF/Ministry of Agriculture, Water and Forestry, 2008.p3.
[449] Ibid.
[450] MAWF/Ministry of Agriculture, Water and Forestry, 2008, *supra*.
[451] Ibid.
[452] Act 24 of 2004.
[453] Act 54 of 1956.

2.2 Water institutions and rural water supply

The institutional arrangements in rural water supply are currently layered according to the provisions of the National Water White Paper of 2000 which have now found legal recognition or confirmation in the 2004 Act and the Water Supply and Sanitation Policy which was drawn up after the 2004 Act.[454] It remains to be analysed whether this institutional arrangement is brewing healthy politics or not in the management and supply of water resources in Namibian rural areas. Under the National Water White Paper, the government of Namibia embarked on a programme of handing over water resources and facilities to water committees. Even though this system has been initiated and endorsed in the state policies for more than a couple of years, the acceptances of the system have been lethargic and scattered as this research reveals.

2.3 Water committees and Traditional Authorities

The introduction of Water Point Use Associations (WPUAs) and water committees in Namibia's rural water supply is viewed by policy and law makers and some community members as important for management of water as a collective resource.[455] However, since there are a number of institutions at community level which have a role and responsibility for water resources management, it is useful to consider that water institutions do not exist in isolation. Rather they are networked into a complex of different institutions. The degree of institutional complexity that exists means that rural water supply cannot be assured of the outcomes of key decisions they take over water use. Outcomes are often mitigated by the actions or

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[454] Fieldnote, 4.
[455] Fieldnote, 14.

decisions of other institutions, or are the result of negotiation or conflict with other institutional actors. As Peters put it:

> Land and resource allocation and management in Africa present highly complex situations: the layering of institutional arenas and rights systems (for example, customary and statutory, and sometimes various types of custom), the pervasiveness of multi-use resource systems, extensive and long-established movements of people across resources, and overlapping and competing modes of administration and authority.[456]

This description is very apt for the studied regions and descriptive of certain situations which exist in rural water supply in other regions in Namibia as well.

2.2.1 Decision making: Tension or cooperation

In the studied regions, there has been a mixed experience concerning the relationship between traditional leaders and water institutions, especially water committees. In Kavango and Ohangwena, the new water institutions as new institutions with powers for decision-making over local water points have caused resentment from the Traditional Authorities, who have felt left out or threatened.[457] In Kavango there are some feelings that water committees have weakened Traditional Authorities. Hence some members of the community have reservations on the statutory roles of water committees.[458]

The relationship between Traditional Authorities and water committees should be understood in the context of the legal framework as a whole. Water committees came into rural water supply after the 1992 Water Policy, and the 2004 Act also incorporates them. This means that Traditional Authorities predated water committees. Hence the role of water committees is subtracting from some of the roles Traditional Authorities had before the advent of water committees.

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[456] Peters, 2000: 22.
[457] Fieldnote, 16 and 17.
[458] Fieldnote 16, 51, 58 and 89.

The source of the reservations which Traditional Authorities and the people in the communities in general have towards water committees seems to be emanating from the fact that both the 1992 Water Policy and the 2004 Act do mot mention Traditional Authorities, although they both mention traditional communities. The silence of the Policy and the Act is unwelcome, because Traditional Authorities are very close to the community, and their management style will never be the same as that of statutory bodies like water committees in that water committees use statutes to execute their mandate. Such statutes are the Water Policy, the Act and the Water Point Constitutions. In the management of water resources Traditional Authorities mainly use flexible customary rules.[459]

Recognising the silence of the law about the role of Traditional Authorities in Rural water supply, most communities have opted to include Traditional Authorities in their water committees. This position is well supported by Mr. Harold Koch, the Director of Rural Water Supply in the Ministry of Agriculture, Water and Rural Development who said:

> I do not think it is a problem for the Act to be silent about Traditional Authorities. We decided that we should leave it up to the communities who know their tribal set up either to include Traditional Authorities in their Water committees or not. It's up to them.[460]

Koch said that he would prefer viewing Traditional Authorities "as mediators, arbitrators, or traditional court in water resource conflicts".[461] This will enable them to work independent of statutory bodies like water committees, and there will be no tension but co-operation. Furthermore, this will also be good for the nation, because "if we take all small disputes to the proper courts (*sic*) the official courts then we will

[459] Fieldnote, 2, 4, 10, 32, 48 and 87.
[460] Fieldnote, 3.
[461] Ibid.

cause this justice system of us to collapse."[462] The idea of regarding Traditional Authorities as the conflict resolution institution in water conflicts and excluding them from water committee structures is an acceptable idea since it would be difficult for Traditional Authorities to preside over a case where one community member challenges the decision of a water committee if the members of the Traditional Authority were involved in the making of the decision being challenged.

Notwithstanding the amicable position stated above, the exclusion of Traditional Authorities in the statutes and policies also implies that the 2004 Act is not plural conscious, in other words does not recognise that there is legal pluralism in Namibia, though a contrary position may be held. The position that traditional communities are given the discretion whether to include Traditional Authorities in water committees or not can also be taken to mean that the Act took cognisance of the diversity of traditional communities. Hence the discretion was left to the communities, as it would be impractical to legislate for all the communities. This, however, does not solve the issue in so far as the Kwanyama Traditional Authority is concerned. The Kwanyama Traditional Authority has labelled water committees in its jurisdiction "Puppets of the Ministry".[463] Below is a consideration of this.

2.2.2 Water committees as puppets of the Ministry

The Water Policy and the 2004 Act provide for water committees which should be registered, and the registration thereof happens after the community has voted for the committee from among their members. However, once elected by the communities, water committees hardly apply customary law and take directives from traditional leaders. Their operations are governed by the laws and policies of the country

[462] Ibid.
[463] Fieldnote, 17.

affecting rural water supply. They take most of their directions from government structures in their regions, which also get some of their directives from the central government. This is typical top down management of water resources. Customary modes of water management are hardly followed and at times regarded as ineffective in the current dispensation where water is piped, something unknown to customary laws of resource management. This again is an example of the existence of a parallel normative framework governing the existence and operation of community self-help groups in Namibia, based, in this instance, on a normative framework established purely on the basis of administrative arrangements.

In traditional societies the customary leaders were responsible for the management of water. Now the State also designates technicians in the same perspective. The distribution of the work now determines the participation. When it comes to the enforcement of payments in areas where the Directorate of Rural Water Supply works along with water committees, water committees report directly to the government officials like extension officers in their locality. Water committees do not report to Traditional Authorities. The law does not bind them to do so.

The fact that Traditional Authorities do not have any power to control water committees has created a legitimacy crisis especially at Omhedi Village in Ohangwena Region. The Kwanyama Traditional Authority does not recognise water committees.[464] This conclusion holds as we consider that water committees are regarded by the Kwanyama Traditional Authority as puppets of the Ministry of Agriculture, Water and Rural Development.

> Water committees are just puppets of the Ministry of Agriculture. They collect people's money, they do not report to us, they are just there doing their work for the Ministry … we

[464] Fieldnote, 17.

> cannot tell them what to do because they receive their orders from the Ministry and people like him [Agriculture Extension Officer]. We don't have a say.[465]

The Kwanyama Traditional Authority is of the opinion that water committees must be made accountable to the Traditional Authorities, the reason being that that will cultivate community acceptance of the activities and decisions of the committees, and at the same time accountability to Traditional Authorities will mean legitimacy in the eyes of community members. Basically the Kwanyama Traditional Authority proposes a bottom up approach to water resources management not the current situation which is top down.[466]

This shows that in traditional societies the approaches that do not involve traditional structures of governance are likely to fail. Green Cross Burkina Faso has noted that the water management policy must take tradition into account in order to achieve a sustainable vision;[467] hence a bottom up approach should be followed. The 2004 Act therefore should have taken cognisance of this situation and legally made water committees accountable to Traditional Authorities as well. This position was supported by Mr Witbooi, the Deputy Director for Law and Administration in the Ministry of Agriculture, Water and Rural Development who said:

> You are correct. The Act should include such provisions so that our rural water supply is not negatively affected by these kinds of issues like legitimacy of Water committees, the acceptability of their functions and such other issues… I have heard about this in many areas where people have rejected water committees or their decisions. It is not good; we have to address this in the Act which we are revising right now.[468]

In order for this proposal to work, it is imperative that the lawmakers be conversant with traditional knowledge involved in water or natural resource management in

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[465] Ibid.
[466] Ibid.
[467] Green Cross Burkina Faso, 2009. 'Customary Law and Traditional Water Management: Case study concerning the Yatenga Province, Burkina Faso.' Available at http://www.vanuatu.usp.ac.fj/library/Online/Customary_law/Zone.htm. Last accessed 25 April 2009.
[468] Fieldnote, 4.

general. The mastery of local knowledge in water management, and the understanding of the sources of conflicts, are necessary for the elaboration of sustainable projects and would favour a partnership between traditional and modern water management institutions. This approach has worked in Burkina Faso.[469]

The situation in Otjozondjupa shows different results. Despite lack of customary legal recognition of water committees, the majority of water points managed by such water committees work quite well generally.[470] This is so particularly among rural communities in which concepts such as legitimacy of the water committee have relatively little relevance compared to the question of whether water is available or not, and whether the pump has fuel or not. The legitimacy of the water committee becomes a secondary issue, and some may not think about it in the face of the more challenging issue of water availability, functionality of the water point and other concomitant issues.

3. The Corporatisation of Rural Water Supply

Although there are plans to privatise urban water supply, water supply is only corporatised as opposed to privatisation. However this corporatisation has affected rural communities as alluded to above. Without going into much detail, it should be noted that the introduction of NamWater in Otjozondjupa Region has created more problems than solutions.

In Okamatapati Settlement Area, residents are in complete rejection of NamWater as a water supply entity. The corporatisation of water supply in this area, which was done in phases, has led to a situation where the government has decided to bill the

[469] Ibid.
[470] Fieldnote, 32, 34 and 70.

residents on the community water bill. The community water bill accumulated before the introduction of NamWater as a corporation in charge of bulk water supply and the individual water bill which accumulated per individual household after the introduction of NamWater. Residents would like the government to cancel the 'previous' debt, being the community debt which the MWARD split among all Okamatapati residents, to individual household bills, in accordance with what they call 'equitable splitting' .

3.1 Proposed abolition of NamWater

It has been highlighted above that NamWater does not enjoy warm relationships with most communities in Otjozondjupa Region. In Okamatapati an opposition political party known as the Democratic Turnhalle Alliance commands substantial support. The party has representatives in Parliament (National Assembly) who analysed how NamWater has affected Okamatapati residents. Its president one day in Parliament, specifically on 30 September 2003, proposed an abolition of NamWater.

Before he stated his position, he stated a socialist approach to water supply where government is expected to be the main actor in water supply and be in full control, rather than providing the service through agents like NamWater, which, although it is a government owned entity, operates on a commercial basis. He reiterated that water does not have to be cut off, especially when the beneficiaries are the rural poor like orphans and the elderly and unemployed people. Specifically he said:

> While we are approaching this issue in such a humane, laudable fashion, why should we punish a peasant farmer for not paying his water bill while his annual income is perhaps below N$24 000? Why should we cut off water supply to pensioners whom we are paying N$250 per month? What kind of a government are we if in one breath we do things that are laudable, in another breath we do things that are asinine? [471]

[471] Kaura, K. 2003. 'Motion on bulk water supply by NamWater'. In Parliament of the Republic of Namibia, 2003. Parliamentary Debates. Windhoek: Parliament of the Republic of Namibia, p. 96.

In his speech, Hon. Katuutire Kaura continued denigrading government support for Namwater, which he claimed has contributed to the woes in rural water supply especially in his constituencies. His submissions were interrupted at some points especially by Members of Parliament who belong to the South West Africa Peoples' Organisation, SWAPO, but he continued with his points and concluded with a startling statement where he said:

> The country is in the middle of a severe drought, there is no water, it has not rained yet, NamWater is cutting off the little bit of available water to the people. That is, at best, stupid. We cannot live with this supercilious unadulterated hogwash. It is a categorical imperative that we must revisit this serious NamWater debacle with a view of abolishing the Act that established NamWater, so that the provision of water will revert back to the Ministry of Agriculture, Water and Rural Development if we don't want to face a true disaster in the foreseeable future.[472]

This issue was debated at length, with DTA members maintaining that the process of commercialisation of water supply had negative consequences for communities, especially the most impoverished ones, who could no longer afford this most basic need. There were regular increases in water tariffs for water and cut-offs for failure to pay. This affects a whole community and livestock.

On 22 October 2003, the motion was revived, and this time the Secretary General of the DTA rose to submit a motion on the same topic and substantiated:

> For the record, if there is one public policy that we enacted as a nation, that is contrary to basic reality, then it is the privatisation of Namwater. The government has made a serious and terrible mistake by privatising the water utility provider.
>
> Whether any Minister or leader in government tries to explain the reasons for the need for this law that established NamWater, those answers would not be enough and shortcomings are immense.
>
> The problems today are that children in schools cannot use toilets because at times the water has been out.[473]

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[472] Kaura, 2003, *supra*, p.96.
[473] Kaura, 2003, supra.

This issue got the attention of the whole house with the relevant ministers responsible for water and sanitation services responding to opposition submissions. One such response came from Hon. Angula who was the then Minister of Agriculture, Water and Rural development who said:

> The case of Hon. Venaani is a special case. Right from the beginning they [some of Otjozondjupa rural residents] refused to pay. They have accumulated N$14 million… that's what you said in the meeting. They are not going to pay this Ovambo government. Therefore, what is problematic is not the cost of water per litre, it is the accumulated deficit based on political irresponsibility of the leaders of the area. There are a huge number of cattle and we have the names of the people who are in the forefront, who forced the poor people to pay. They are Parliamentarians and highly paid civil servants.[474]

The submission by DTA members was shot down and condemned. In one of the paragraphs SWAPO members said:

> The strategy behind the proposal of Hon. Kaura is most probably to embarrass the government because there are many people that support the government. If now the government defends the existence and continuations of NamWater, the opposition hopes that the government may play into the hands of the opposition by alienating those that support government on many issues, but are unhappy about the existence of NamWater. This can be deemed as cheap and destructive politics because it would have been better to make proposals how to balance and improve water supply services both to accommodate social responsibilities and to ensure payment for water that is used for commercial activities.[475]

The motion to abolish NamWater was voted down on 22 October 2003. However despite this vote against abolition, Parliament realised that there was an important issue to address – that of the involvement of NamWater in rural water supply.

Furthermore, and after realising the negative vote, Hon. Venaani of the DTA introduced a similar motion on 8 September 2008 asking the government to write off the debts which have accumulated against the rural communities, especially those in Otjozondjupa Region. In his submission he stated that it would be fair to do so since the majority of the population has demonstrated inability to pay.

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[474] Angula H. 2003. Response to the Motion on bulk water supply by NamWater'. In Parliament of the republic of Namibia, 2003. Parliamentary Debates. Windhoek: Parliament of the Republic of Namibia.

[475] Ibid.

Parliament realised that this was a newsworthy issue and may lead to SWAPO losing votes in the region since some parties like DTA were capitalising on water as an issue to gunner votes. This realisation led to the establishment of a parliamentary task force under the auspices of the Parliamentary Standing Committee on Economics, Natural Resources and Public Administration. The activities of the task force are discussed in more detail below.

3.3 Public hearings and the Creation of Parliamentary Taskforce on Rural Water Supply

Following discussions in Parliament – National Assembly, Lower House's Standing Committee on Economics, Natural Resources and Public Administration undertook public hearings. The hearings were conducted in the Ohangwena, Oshana, Oshikoto and Otjozondjupa Regions.[476] According to Parliament Journal:

> DTA parliamentarian Hon. McHenry Venaani tabled the motion on 8. September 2008. After deliberations on the motion, the National Assembly agreed to refer it to the Committee which consequently agreed to summon NamWater Chief Executive Officer who appeared before the Committee on 7 April 2009. At that meeting, the Chief Executive Officer informed the Committee that Namibia Water Corporation Act (Act 12 of 1997) compelled the corporation to run its affairs on commercial principles and, unless instructed otherwise by a Cabinet decision, the water utility had no mandate to write-off bad debts. Subsequent to that meeting the Committee resolved to undertake public hearings from 10-16 May 2009 to the affected communities for further investigation and in line with its activities for 2009/2010.

During the public hearings the Governor of Oshana Region said that he felt that water management was problematic as members of the Local Water Point Committee (LWPC) did not have the capacity to collect funds on behalf of NamWater. Although expected to collect funds for NamWater using their own resources, LWPC members are said to be unemployed.

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[476] Riruako, B. 2009. 'Rural communities demand scrap of water debts.' *Parliament Journal*, 7(2): 7-8.

This raised concerns about transparency and fairness, as the communities were not provided with receipts when they pay for water to the LWPC Chairpersons.[477] The community appealed to NamWater to train members of the LWPC on billing and financial management and suggested that they be remunerated with full fringe benefits enjoyed by NamWater employees. They equally appealed to NamWater to write-off their debts in order to give them a sigh of relief.[478]

The water debt was equally a problem for communities in the Otjozondjupa Region with the majority of communal farmers having no other means of survival.[479] For example, the installation of water meters at households in the Okakarara Constituency had created additional challenges for the community, as they had to pay for two accounts per month — the accumulative debt and the new water meter readings.[480]

> Other challenges faced by the community in the region include high charges for water consumption; some communal farmers subsidising up to ten households for the marginalised San people; villagers paying for outstanding water bills for the deceased and for farmers who have migrated to other areas; the billing of water according to the number of heads of cattle which had created tension between farmers; incorrect meter readings due to lack of training; and inadequate information that rural water supply officials provide to communities. Additionally, all community members spoken to cited high water charges, poverty, unemployment, and long distances as contributing factors to non-payment of NamWater bills.

The Committee delegation, led by Hon. Nicky Nashandi, was composed of Parliamentarians Arnold Tjihuiko, Moses Amweelo, McHenry Venaani, Chief Samuel Ankama, and Eunice Iipinge. Below are some of the community members inspecting a burst water pipe in Otjituuo Settlement Area.

[477] Ibid.
[478] Ibid.
[479] Ibid.
[480] Ibid.

Figure 17: some Committee Members inspecting a burst water pipe in Otjituuo

Source: Riruako, B. 2009.

A report was produced and is awaiting presentation in the National Assembly for adoption or rejection. The researcher could not get access to this document since it is not yet available for public scrutiny before it is presented in the National Assembly.

4. The decentralisation process rural water supply

4.1. Projects and implementation

The Namibian government launched a Decentralisation Policy in March 1998 designed to enhance and guarantee participatory democracy, improve rapid sustainable development as well as improve the capacity of the government to plan and administrate the development.[481] The overall theme of the "Decentralisation Policy" is democracy and development. The decentralisation was aimed at

[481]MRLGH/Ministry of Regional, Local Government Housing, 1998. *Decentralisation, Development and Democracy. The Policy, its Development and Implementation.* Windhoek: MRLGH/Ministry of Regional, Local Government Housing, p.5.

transferring decision making as well as implementation of water laws policies and plans close to the communities. Most ministries had to decentralise their functions to the regions and districts including the MWARD.

In 1999, several sections of the government embarked on establishing new structures at the regional level down to the local level, in the shape of local committees involving the different parties, and not least the local community in the regional planning.[482] This included Water Point Committees (WPC) simply known as water committees. In addition, initiatives were taken by the central government to transfer some of the planning functions and decision-making to the lower levels. In this light, the Ministry of Agriculture, Water and Rural Development (MAWRD), drafted the Guidelines for the implementation of community based management and cost recovery for the rural water supply. These guidelines provide that the CBM Strategy will be implemented over a period of ten years, starting on August 1, 1997 and ending on July 31, 2001, by which date rural water supply is managed and owned by Water Associations.

Implementation of the strategy is in three phases: phase one "Capacity Building", phase two "Operation and Maintenance" (O&M) and phase three "Full Cost Recovery" (FCR).[483] Through these three phases gradual transfer of responsibilities towards community management of rural water supply is in terms of the guidelines deemed ensured. In terms of this plan, as the guidelines put it, initially, the Water Association will lease the water supply infrastructure, and eventually, when the

[482] Ibid, pp25-8.
[483] Fieldnote, 6, 10, 13, 47 and 48 from MWARD/ Ministry of Agriculture, the Water and Rural Development 1999. *Guidelines for the Implementation of community based management and cost recovery for rural water supply*. Windhoek: Ministry of Agriculture, the Water and Rural Development, Directorate of Rural Water Supply.

Association is ready, but within the timeframe of the CBM implementation phases, it will own the water point or pipeline scheme.[484] The whole idea of decentralisation was thus to make all the 13 Regional Councils across the country the overall coordinating body regarding development within the respective regions, which besides coordinating the input from the Local Authorities and the Line Ministries, also had to manage the input from the people living in the urban and rural areas.[485]

Under the decentralisation plan, and in the context of rural water supply, the Department of Rural Water Supply in the Ministry of Agriculture, Water and Rural Development (MAWRD), under the delegation process, would have to report to the Regional Council Office. This new decentralised structure would enable the people living in rural areas to participate through various water committees in rural water supply.

The initial process of deconcentration was finalised, and then the MAWRD was supposed to implement the delegation process and delegate rural water supply to Regional Councils. This has raised thorny issues, since the MAWRD feels that Regional Councils are not ready to deal with rural water supply.[486] Ironically MAWRD officials have already been seconded to deal with rural water supply under the Regional Council.[487]

This suspension of the plan to delegate has stalled some of the plans of the Regional Councils who had prepared to start off with rural water supply under the delegation

[484] Ibid, p.4.
[485] ARC/The Association of Regional Councils, 1997. *The Role of the Regional Councils in the Progress of Decentralisation*. Windhoek: Konrad-Adenauer-Stiftung.
[486] Fieldnote, 10, 12 and 13.
[487] Fieldnote, 13.

process. Some officers in the MAWRD have also come to believe that Regional Councils are not yet ready to handle rural water supply in the regions. The Acting Regional Head for rural water supply in Ohangwena, Ms Hamufenu, said:

> I don't think these people [Regional Council officials] are ready to handle our affairs… look how can they deal with such a huge task of rural water supply if they cannot even handle their own affairs, if their house is not even in order?[488]

According to Mr. Ngutonwa, the Control officer in the MAWRD Regional Office for Otjozondjupa:

> I do not know what happened to the plan exactly, but I remember that there was a letter from Windhoek which stopped the process, but we have been seconded there [Regional Council] and we should report there and eventually we should work under them when the functions have been devolved… I think we can work together [with Regional Council Officers] nicely.[489]

There are mixed feelings also in Kavango about this situation. The Otjozondjupa Regional Council says that everything is in order, and they do not understand why the process was stopped. Mr. Clifton Sabati, in the MLGH, says:

> We finished our part. We did all the assessments. My friend, we did an analysis of all the regions and we checked their readiness on our list of requirements. It's a long process but after we did our work, we concluded that all the regions are ready to handle the function of rural water supply. If they stopped it, then it is not up to us. They have to tell you what's going on. We cannot force them to do it. We recommend that they do it and we already did that.

In the MAWRD, Mr Koch, who is the focal point for decentralisation in his Ministry and Director for Rural Water Supply also said that "current leadership of this Ministry feels that the Regional Councils are not ready."[490] After queries as to what exactly Regional Councils are lacking, making them 'unready' for handling rural water supply, he says:

> Everything, everything, they [leadership of the Minstry] feel that Regional Councils are not ready in terms of manpower, capacity and expertise, you name it.[491]

[488] Fieldnote, 10.
[489] Fieldnote, 13.
[490] Fieldnote, 4.
[491] Ibid.

This however raises a sceptre as to whether this 'feeling' of the current leadership is in accordance with the facts on the ground, because the MLGH has done all assessments and made recommendations for decentralisation of rural water supply to go on. This fact is recognised by Mr Koch, who however, added some other reasons:

> Another problem is that the money to be used in rural water supply will go into private banks. All Regional Councils have their moneys deposited in private banks but not ministries, so if we decentralise, we have to give them money to run rural water supply, and the money will be deposited into private banks.[492]

It is not clear what the effect of depositing money into private banks is. Maybe there is fear of abuse of funds and lack of enough transparency. However the leadership of the two ministries have agreed to meet and discuss these issues,[493] because the two ministries are at present not in agreement as to whether to proceed or not, with each ministry pulling in opposite directions.

4.2 Decentralisation and the 2004 Act

The 2004 Act decentralises functions to lower level public legislative institutions. It does not, however, go as far as to devolve these functions to the lower level entities: ultimate decision making remains centralised with a long term plan to fully decentralise (devolve) water management and supply to Regional Councils, which are again agents of the central government.

An analysis of the 2004 Act shows that the Namibian approach to Community Based Management (CBM) is top down. The 2004 Act does not recognise a bottom up approach in CBM, because of the bureaucracy that it creates, which requires local/rural communities to always dance according to the dictates of the statutes and

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[492] Ibid.
[493] Ibid.

executive directions from central government structures, and because of its exclusion of local traditional governance and dispute resolution structures such as Traditional Authorities. Mr Witbooi the Deputy Director for Law and Administration in the MAWRD says that the Ministry has picked up this issue, but it is difficult to directly address in the Act. However, they are working on a review and possibly a repeal of the 2004 Act before it even comes into force and enacting a new Water Act.[494]

The above illustrates that the African State like Namibia is influenced by the historical setting as well as the surrounding African society, which also indirectly influences the decentralisation process. According to Larsen, who studied the decentralisation process in Namibia, the Namibian State is based on different values and norms, i.e. the clan phenomenon, patronage politics and economy of affection, which makes the Namibian State function somewhat differently from what Eurpoeans are accustomed to know.[495]

> It is therefore unrealistic to expect that decentralisation in Namibia would have the same outcome as in Europe at this time. The decentralisation process in Namibia has so far illustrated very well that decentralisation is a European concept in an African context Most African states are not nearly as established as western states, and are non-institutionalised, which makes it even more complicated to apply the decentralisation concept to the African state.[496]

However, considering that decentralisation is a relatively new concept in a relatively new democracy, the regional planning and community participation is functioning as well as can be expected.[497] The decentralisation process in Namibia is still an ongoing process, and there is still a long way to go for the Namibian government, if devolution

[494] Fieldnote, 4.
[495] Larsen, A. 2003. Decentralisation in Namibia: A case study of the Erongo Region. The Interdisciplinary Journal of International Studies No.1, pp.1-16. p.10.
[496] Ibid.
[497] Ibid.

is the final aim. In the year 2000, the then Deputy Minister of the Regional and Local Government and Housing predicted that it will be implemented in 2030.[498]

4.3 Decentralisation and CBM: Sticking points needing clarity and redress

It is argued that decentralisation will make communities 'masters of their destiny' by empowering them with administrative and legislative powers as well as with the required resources.[499] It is believed that the nearer the decision loci to those affected by the decision, the better the decision will reflect the interests and preferences of the community. As different local communities may differ with respect to their priorities, decentralised decision-making will make it possible to take into account such differences (Tiebout model).

Decentralisation to democratically elected lower level governments makes those responsible for provision of services answerable and accountable to the community through their representatives in local councils. Therefore, as Godana, and Naimhwaka,[500] submit, the community will have direct control over the quality of services and the cost of providing those services. The authors go on to say that decentralisation is seen as a vehicle to improve service delivery to the community and improve the responsiveness of service delivery to local preferences [501] This Tiebout type efficiency argument for decentralisation is less strong in the Namibian context than in more developed economies. As Bahl and Linn note:

> Gains in economic efficiency are the product of a system of governance in which governments are small enough to give local residents a choice, the political process allows voters to reveal

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[498] Tötemeyer, GKH. 2000. Decentralisation for Empowerment of Local Units of Governance and Society - A Critical Analysis of the Namibia Case. *Regional Development Dialogue,* 21(1):95-118, p.101.
[499] Godana, T. and Naimhwaka, E, 2002. Decentralisation of Capital Projects. NEPRU Working Paper Number 83. Windhoek: Namibian Economic Policy Research Unit (Nepru), p.4.
[500] Ibid.
[501] Ibid.

> their preferences, and the local government has the fiscal autonomy and technical capability to reflect voter preferences in its budget and service delivery. [502]

They conclude, "These conditions are met in few developing countries".[503] The process of decentralising decision-making in the public sector has received much attention of late.

It is perhaps also appropriate to ask whether decentralisation will bring about the efficient utilisation of water resources in Namibia. From a development perspective, decentralisation is undoubtedly a positive initiative, although budgeting and the decision to implement a specific project are still largely dependent on the Namibian central government through the various line ministries. According to Godana, and Naimhwaka, to better understand the strengths and weaknesses of decentralised economic development it is imperative to correctly conceptualise local economic development as a process, rather than an outcome of certain policies by central or local government. They continue:

> Local economic development is a strategy in which local communities are empowered with resources and decision-making powers to initiate, plan, design, and implement development projects. Though centrally initiated and planned, projects are obviously implemented locally, but should not be confused with local economic development projects. Further, the slow pace and the low degree of decentralisation in Namibia have made it more difficult to mobilise community participation.[504]

Civil society has never been strong in Namibia, given the country's history of colonisation and apartheid repression. Namibia became South Africa's protectorate in 1919, and the government extended its laws to Namibia, including the racial laws.[505]

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[502] Bahl and Linn, 1992, p.413.
[503] Ibid, p.413.
[504] Ibid.
[505] Larsen, A. 2003. 'Decentralisation in Namibia: A case study of the Erongo Region.' *The Interdisciplinary Journal of International Studies* 1(2):1-16. Tötemeyer, G K H. 2000. 'Decentralisation for Empowerment of Local Units of Governance and Society - A Critical Analysis of the Namibia Case.' *Regional Development Dialogue* 21(1): 95-118. see also Tötemeyer, GKH. et al 1987. *Namibia in Perspective.* Windhoek: Angelus Printing.

According to Larson,[506] today, the centralised structure, along with the strong political elite with reference to the clan, leaves little room for civil society to participate. Up until now, there have been few initiatives to include the ordinary people in the matters. The spin-off effect of community participation in Namibian communal areas has therefore been rather limited. For one thing, the political, financial and personnel powers which should have supported the work of the different committees, including mobilisation of the people to participate in different projects, have not been transferred to the regional level.

Further, the people living in researched settlement areas in Otjozondjupa Region, like Okondjatu, Okamatapati and Otjituuo, are not fully aware of the decentralisation policy and the work of the Settlement Commitees (SCs).[507] This, according to Larsen, makes it difficult to mobilise participation with respect to implementation and evaluation of the development projects.[508] The general fair conclusion would thus be that the lack of political commitment, at least between the MAWRD and the MLGH, has stalled the decentralisation process in rural water supply, which has affected the work of the Regional Councils, who may have closer association with traditional communities. This has made it rather impossible for the regional planning, including community participation, to function.

According to Larsen,[509] the lower level of the decentralised structure is rather weak, and not nearly as established as desired. The CDC's are on the other hand quite well established, but cooperation between the different members, e.g. government agencies, sector ministries, Local Authorities and NGO's in the area, is lacking, which

[506] Larsen, A. 2003, *supra*.
[507] Fieldnote, 13, 74, 75, 76 and 77.
[508] Ibid.
[509] Larsen, A. 2002. *supra*, p.41.

hinders them from coming up with serious suggestions for a development plan for the constituency.

> The RDCC has the same problem. Most of the general planning is, at some point, still conducted by the Line Ministries and the Local Authorities, which makes it difficult to integrate any development proposals coming from the SCs, CDCs, and Regional Council. The new decentralised structure is more used to implement national policies and is more a top-down than bottom-up planning. The possibilities for community participation in the regional planning are rather limited, given that most SCs are not established yet. [510]

Larsen goes on to say that together with the fact that the RDCC in some regions is not functioning leaves the communities without any influence on regional planning. Many people living in the settlements are still not aware of the decentralisation Policy and the new structure which enables them to participate.[511]

5. The Politics of Treatment: Regional Disparities in Rural Water Supply

There are certain disparities which require special attention because their implications have a negative or positive political meaning, depending on how one interprets the situation. One important issue requiring mention here is that traditional communities in Otjozondjupa are voicing that they are being unequally and unfairly treated, especially on the issue of payment for water. One anonymous Okamatapati Settlement Area resident said:

> Look, we have been paying nothing during the South African government. They say that the South African government was bad because it brought apartheid and discrimination but they are doing the same and even worse these days. We are forced to pay for water by a government company NamWater here; but look at those people in the Northern regions, they are not paying anything… they have not paid anything for water since independence. Why? Is that not discrimination?[512]

The researcher was not in the position to answer the question posed by this rather politically sensitive Okamatapati resident. Instead, the researcher reserved the question for the central government structures in Windhoek to answer. Upon meeting

[510] Ibid, p.42.
[511] Ibid, p.44.
[512] Fieldnote, 88.

Mr. Kock, the National Director of Rural Water Supply, the researcher posed the question, to which the Director responded:

> May be it's a political issue. …. And that is what is for me is very important. Water should not become a political power ball, power struggle you know. It could be the answer but it could also be unwillingness [to pay] and now they use this as an answer: the people in Ohangwena are not paying, why should we pay? Maybe they [Ohangwena residents] can afford but also maybe they cannot afford. But they [Otjozondjupa residents] do not look at this; they just say that they cannot pay. [513]

Another disparity exists in the subsidisation of water. National Water Policy White Paper 2000 provides for the provision of subsidies to those who cannot afford to pay the full costs of water, but not all communities who cannot pay receive subsidies. According to Mr Koch:

> There is also disparity in the pipeline water supply communities and the boreholes, I mean we stopped all diesel supply and oil and fan belts many years ago and those people are fully looking for their own water. Now, pipeline people are not paying, is this fair? If we subsidise pipeline should we not give those people who look after [their own water] or diesel installations also subsidies although they are fully managing? So should they also stop managing?[514]

These are critical questions for the central government in Windhoek to address. The issues are known to the people working with communities and researchers who have worked in the communities, but it seems that the information conduit is broken somewhere, or if not, then the views of the communities are just ignored at Cabinet level, although at times they are aired in Parliament by concerned Members of Parliament.

> But I think the leadership of this country should come out clearly and not make exceptions to the rule. I mean we cut-off people in Oshikoto Region in Muchigunime pipe line and then we get an instruction from State House "go and open it again". We say they have not paid but their neighbours have paid…

When the researcher asked whether any directive had been received on the opening of water for Okamatapati residents, the answer was negative. When the researcher

[513] Fieldnote, 3.
[514] Fieldnote, 3.

approached Mr Witbooi, the Deputy Director for Law and Administration at the MAWRD, the answer was:

> Maybe politics but also maybe this disparity exists because the differences in the water supplier. I understand that Okamatapati is receiving its water from NamWater, but most of Otjozondjupa residents get it from the Directorate [of Rural Water Supply]. Maybe the Directorate is supplying free water while NamWater charges for all the water. And may be they [Ohangwena residents] are fully subsidised.

Consequently it can be concluded on the basis of this research that the provision of safe drinking water supply and sanitation facilities is a basic necessity of life and a crucial input in achieving the goal of 'health for all' as the Millennium Development Goals and the Namibian Vision 2030 envisage, but it is inconceivable whether this will be achieved if the mentioned disparities and a few minor ones still exist. There is need to make uniform the application of the laws and policies across the regions in Namibia and look into the criteria for subsidisation of water costs to communities who "cannot afford". If this is not addressed, then Vision 2030 and the Millennium Development Goals may remain a dream in Namibia insofar as at least rural water supply and sanitation are concerned.

6. Conclusion

This Chapter has highlighted the rural water supply in the three studied regions and analysed the politics of water supply at both local and at central government level and the ways they operate between the legal and the extralegal. The chapter shows how local communities build on their own water rights foundations to manage internal water affairs but which simultaneously offer an important home-base for strategising wider water defence manoeuvres. It is shown that hand-in-hand with inwardly reinforcing their rights bases, water user groups aim for horizontal and vertical linkages, thereby creating strategic alliances. Sheltering an internal school for rights, administration of water resources and community natural resource regime and legal

identity development, reflection and organisation, these local community foundations, through open and subsurface linkages and fluxes, provide the groundwork for up scaling their water rights defence networks to national and transnational arenas.

Furthermore, this chapter has shown that issues of governance of rural water supply in Namibia have been fraught with a number of problems. The tendency for many years was based on centralisation of management of rural water supplies through the Central Government or donor agencies. Even after the institution of the policy of decentralisation by deconcentration, delegation and finally devolution in Namibia, still the tendency is to decentralise down only to the regional level, ignoring the lowest levels such as Traditional Authorities, who have a big stake in local community natural resource management including water resources. This has made the institutional framework for rural water supply become an issue of intense debate, and a number of controversies abound in Namibian rural water supply as expounded above and in other chapters. The balancing act between the role of the central government, water provision entities such as NamWater and the Directorate Rural Water Supply and the Regional Councils and even Traditional Authorities who lie at the lowest level of governance closest to the residents in traditional communities on one hand, and the community based water user associations such as water committees, is not yet resolved, and should be worked out through a strategy that is conscious of the plurality of legal codes in Namibia.

Chapter 8

Lessons and Recommendations: A Pluralistic Approach to Namibian Rural Water Supply to Curb "Water Wars"

1. Introduction

This chapter provides a summation of the findings in Chapters 4 to 7 above and recommends a number of options where problems have been identified. The lessons and recommendations are in line with the research questions outlined in Chapter 1 above. These lessons emanate from the analysis done in Chapters 4 to 7 above. These chapters provided crude results of some of the issues raised in Chapter 1 in addition to the research questions, but in this chapter all issues whether directly falling under research questions or related thereto will be consolidated, and the result will lead to more detailed conclusions and recommendations.

2. Recap of general observations

Historically, the availability of water in Namibia has always been a problem, and this problem is mainly attributed to its geographical and climatic conditions. Namibia is the driest country in the SADC Region, and looking at available data it is fair to say that water is scarce in the country. The water scarcity index for a country, as proposed by Falkenmark,[515] is defined in terms of the annual per capita volume of water that is required to ensure and maintain different levels of sustainable socio-economic development.

[515] Falkenmark, M. 1984. 'New ecological approach to water cycle: ticket to the future.' *Ambio*, 13 (2): 152–160.

It should be mentioned that water wars or water conflicts are looming in some rural communities in Namibia. The researched areas in this study have revealed this challenge if the current problems are not redressed. According to calculations based upon the available data for Namibia, the country is in a state of absolute water scarcity as far as the adequacy of the resources to meet the demand is concerned.[516] Heyns gives a helpful summary of the scarcity of water in Namibia. He says that the absolute scarcity of water in Namibia can be proven. For instance, compared with the water barrier norm of 500 m3/person/yr suggested by water experts, the water availability in Namibia is only 360 m3/person/yr. This has been calculated by looking at the present population (1.83 million) and the full potential of the internal water sources, including the present pumping capacity, which gives access to a portion of the water from perennial rivers (a total of 660 million m3/yr).[517] Heyns goes on to say that the abstraction of perennial water is limited to the present pumping capacity, and it is therefore clear that the situation can be improved by gaining access to more of the internationally shared river water through negotiation and pumping more water.[518]

From the above it can be concluded, as shown in the previous chapters, that the supply of water in a nation threatened by scarcity is a delicate and politically sensitive exercise which requires efficient laws and enforcement and implementing mechanisms. Without this, conflicts are inherent, and before the government realises, there may erupt violent conflict within and among communities and institutions.

When a resource is scarce, it is imperative that its ownership and management be well spelt out. On this note and from the previous chapters it can be concluded that

[516] Heyns, P. 2005. Water Institutional Reforms in Namibia. *Water Policy* 7(1): 89–106, p.93.
[517] Ibid.
[518] Ibid.

Namibian water law is a prisoner of its own history. Inherent in the historical internal plurality of the Namibian legal system is the always problematic internal conflict of laws. In such a system overlaid by a supreme Constitution, no law of whatever nature can command unquestioning adherence if the rule it expresses seriously offends the values of African justice and relative community rights, and if it is blind to plurality consciousness and diversity which are aspirations of the contemporary civilised and progressive legal systems across the globe. The proposition that, when the State assumed sovereignty over land, it became the universal and absolute beneficial owner of all the natural resources thereon, is losing legal momentum and invites critical examination.

In much of Africa and Asia, especially in countries like India, it is hard to identify the water rights, because they are intrinsically linked to land. African customary land rights, in turn, depend on social relations – membership in communities – or relations with land-allocating chiefs, for example. Indeed, in Ramazotti's review of the ethnographic literature on customary water law, most information about water rights came from discussions of land law or the institutions of chieftaincies, demonstrating how water rights are embedded in both land tenure and social relations.[519] The distinction made by the 2004 Act will obviously trigger conflict and hydropolitics or the politics of water supply, access and use in rural communities. As was noted by Meinzen-Dick and Pradhan,[520] policymakers are often influenced by approaches to property rights which regard these rights as unitary and fixed, rather than diverse and changing. Once this happens there are potential conflicts between the two systems of water management, and the situation is evidenced under the rubric 'hydropolitics'.

[519] Ramazzotti, M. 1996. 'Readings in African Customary Water Law FAO Legislative Study No. 58.' Rome: Food and Agricultural Organisation.
[520] Meinzen-Dick and R. Pradhan 2001. 'Implications of Legal Pluralism for Natural Resource Management.' *IDS Bulletin*, 32(4): 10 – 17.

Furthermore, the concept of water rights brings to light different approaches in interpretation. A humanitarian approach regards water as a human right which requires the State to provide water to the rural poor for free, but on the other side there is a neo-liberal approach to water supply, which treats water as an economic good. These approaches do exist in Namibian water law with the former manifesting itself in the 2004 Act and the latter in the NamWater Act and the 2000 Water Policy. There seems to be a contradiction between the right to have access to water and the recovery of the cost to provide the water. These seemingly contradictory approaches create tension in Namibian rural water supply.

Connected to the above are the new institutional reforms which negate traditional structures. The negation of traditional governance systems has set resentment in certain communities as Chapter 7 above has shown. The institutional reform, especially the corporatisation of rural water supply, has also contributed to high profile hydropolitics in rural water supply with rural communities rejecting the strategies and approaches of government institutions. This has led to a situation where some communities do not regard the water sector as being managed well. Such views are grounded on the premise that institutional reforms in the water sector are normally indicated when performance in water resources management must become more efficient, but in Namibia, in some areas like Okamatapati and Epingiro, this is not the case. The efficiency of the water sector can result from a variety of factors, and in the case of Namibia it relates to political imperatives, policy adjustments, new legislation, the need for accelerated socio-economic development, increased natural resources constraints and emerging adverse environmental conditions.

The Constitution of Namibia abolished the homeland system that was in place before independence, and the new government saw it imperative to implement the Decentralisation Policy. In homelands communities had been managing their affairs at a local level with local governance structures, but the new Constitution centralised these functions, and after a few years the Decentralisation Policy aimed at creating a system akin to the homeland system in the sense of community management but retained control of the whole governance and legislative affairs, hence a difference between decentralisation and the homeland system. This process of decentralisation has also created tension between government institutions, especially between the Ministry of Agriculture, Water and Rural Development on one side and the Ministry of Local Government and Housing with its Regional Councils on the other.

3. Ownership of water

The current Namibia water law is befuddled in internal conflicts of laws. The laws which exist in the community to a great extent are at variance with the laws that are made by the State. This variance has its roots in history, a study of which exhumes how natural resource ownership has changed from time to time in different areas across the territory. Whereas the Constitution creates a public trusteeship principle in the ownership of all natural resources in the country, the communities on the ground do not seem to take a word out of it. Communities seem to ascribe to their customary laws. Hence the plurality or at least duality of legal systems in the country is a situation to reckon with, insofar as the management of all natural resources is concerned.

To the extent that water resources are found on land, access to such resources is affected to a large degree by rules governing ownership of land. Therefore, for a better understanding of the nature of customary water law rights, Chapter 4 has

considered the ownership of land as the written laws provide, and Chapter 5 considered the same from an empirical experience of what traditional communities say. The two seem to contradict each other in the sense that the majority, though not absolute majority, prescribe to the concept of community ownership.

4. Legal background

4.1 The legal regime affecting rural water supply

In any given country, a strong legal regime is important for the effective functioning of institutions. In the context of water law, an effective legislative framework which is conscious of the plurality or at least duality of laws, a competent water administrative structure and flexible water policies are needed in order to avoid the inherently fragile exercise of providing water to communities in a country where there is absolute water scarcity.

Research among the communities in the studied regions in general reveals that water is owned by the communities who reside on the communal land concerned. This perspective is contradicted by the State which takes a positivistic approach to the legal regime providing for land or natural resource ownership and concludes that water, especially ground water, just like the land on which it is found is owned by the State. The position of the State is not without legal foundation. It is informed by the history of natural resource ownership since German occupation, as traced in Chapter 4 above. The position of the community on the other side is also not without legal foundation; it is knowledgeable on the legal position which existed before German occupation. The two have different philosophical underpinnings which carry equally compelling influence on decision making at national or community level. Whereas the two

regimes are legal positions, the latter is less weighty, and the communities find themselves on the defence whenever claims to ownership of water resources arise.

Of note is that the 2004 Act adopted the public trust concept which the Constitution created in water and other natural resources ownership. Thus there is only be public ownership of water in Namibia under the 2004 Act and the Constitution. A different question arises from here regarding whether Namibia's shift to this public rights system is in line with the concept of community property rights. The answer is the negative – a simple no! Chapter 4 and 5 read together support this conclusion evidencing legal pluralism in Namibian water law.

This uneasy relationship creates a silent conflict between the State and communities, with communities sometimes back pedalling on government policies and not co-operating with statutory institutions. This backtracking and lack of cooperation is evidenced by some Traditional Authorities like the Kwanyama Traditional Authority, which does not recognise water committees. In addition, the residents of Okamatapati do not recognise NamWater, and the residents of Kavango settled along the river do not see the significance of creating water committees if the government causes them to rely on river water.

The above situation seems to be influenced by the way the government has reformed the water sector. Water institutional reform has to a great extent affected the perceptions of the communities about water, especially those in Ohangwena. At the same time water institutional reforms have come with new challenges of establishing legitimacy and acceptability of new strategies, policies and laws in water supply and management in general. This topic will be considered in detail immediately below.

4.2 Institutional reforms

The institutional reforms which were brought by the 1992 Water Policy, its review in 2000, and the establishment of NamWater by the Namibia Water Corporation Act in 1997, and now the 2004 Act, are welcome developments. These developments came out as a result of different reasons such as cost recovery, reduction in government expenditure, the need to commercialise water supply because of the heaviness of subsidisation, the need to devolve water management powers to communities through decentralisation processes, the need to have a more sustainable water management system through integrated water management system and community based management, and a host of other political reasons not worth mentioning here.

However these reforms, as has been seen in the previous chapters, have also come with a multiplicity of problems. In the light of these problems in a country threatened by water scarcity, it should be noted that as the water supply system working in Namibia is a relatively new concept needing enough experimentation and experience before finalisation of its content and constituents in greater detail, rural water supply is not in a position to spell out the different components of the rural communities in concrete terms. Otherwise frequent conflicts in the communities and relations between various institutions will give a confusing picture to the rural population, and they will lose confidence in the water management authorities.

The silence of the 2004 Act on rural water management structures has its justifications set out in Chapter 7, but it is recommended that the review of the Act which is being done now considers that a detailed action plan be prepared in

consultation with the water users through the Participatory Rural Appraisal Method. A feasibility study should be undertaken by examining traditional rural government structures' conflict, groupism, political differences and history of confrontation and conflict if any. Considering scarcity and potential for large scale conflict, it is necessary to apply a bottom-up approach instead of a top-down one for sustainability of water resources in Namibia. There must also be mechanisms to ensure that the benefits of rural water supply are equally distributed to all concerned stakeholders.

As seen from the Namibian experience, the studies by Saleth & Dinar[521] correctly identified and confirmed that institutional reforms must be accompanied by a review of the policy, legislation and administrative competence in the water sector. According to Heyns such an assessment will direct the establishment of new institutional mechanisms that can deal with water management in the face of water scarcity, social expectations and the maintenance of ecological sustainability.[522]

As Heyns rightly puts it, this phased approach to reform, followed in Namibia after independence, is broadly consistent with the study view, but the delay in implementation made it difficult to assess the qualitative and quantitative performance of the water sector in Namibia as anticipated in the 2000 Water Policy.[523] Heyns goes on to point out that although there may be an initial excuse in the Namibian case, the assessment of performance may remain subjective for a long time. It is therefore clear that there must be mechanisms and criteria in place to assess whether the institutions are operating effectively as far as water resources development, allocation, use,

[521] Saleth, R.M.; Dinar, A. 2005. 'Water Institutional Reforms: theory and practice.' *Water Policy* 7 (1): 1-19, Saleth, RM. 1996. *Water institutions in India: Economics, law and policy. Institute of Economic Growth*. New Delhi: Commonwealth Publishers.
[522] Heyns, P. 2005. 'Water Institutional Reforms in Namibia.' *Water Policy* 7(1): 89–106. p100.
[523] Ibid.

protection and management of water resources are concerned.[524] The process of evaluating institutional interlinkages and institutional performance linkages in the study provide insight into the requirements for the design of a water institution that will be able to perform and can be established successfully.[525]

Connected to the above point is that the government should change its strategy is the study of the rural communities. Some studies are borrowed from other countries where certain strategies worked but will not work in the Namibia context. On this point Heyns says:

> The analytical framework developed for the study was subjected to a quantitative institutional inquiry and produced results that are not inconsistent with experience in the Namibian context. It can therefore be stated that the approach was at least sound, although it may not be adaptable to all cases. Here it can be specifically pointed out that in a third world country like Namibia, compliance with environmental demands, decentralization issues and land reform have a severe impact on the water sector and such issues should somehow be attended to in the further development of the study process.[526]

The above points stand insofar as we consider that the physical, equitable, economic and financial dimensions used in the study are important aspects to consider in the examination of performance, but as Heyns suggests, other issues must be considered as well, for example, political interference or political direction, social demands, legal constraints and environmental sustainability, which have a major impact on the performance of the water sector.

4.3 Legal pluralism and Namibian water Law

Various communities in Namibia, at least those in the studied regions, have a long history of practicing certain customary laws for management of such resources. Even in the advent of colonial invasion, customary water law continued to exist parallel to statutory law. These traditional ethos and practices are deep rooted and have been

[524] Ibid.
[525] Ibid.
[526] Heyns, 2005, *supra*, p.100-101.

found to be useful in resolving water use conflicts, defining water allocation for different local uses and providing for the protection of water resources in the respective areas.

Currently in Namibia, the water resources laws do not make provisions for recognition of customary laws and practices. This is one of the gaps in the legislation that need to be addressed. As noted elsewhere, "the non-recognition of traditional or customary water users is at the root of many water use conflicts."[527] Even in cases where customary practices conflict with the objectives of the water resources laws, awareness and enforcement efforts may help to change the existing practice.[528] Customary water laws may provide relevant provisions on conflict resolution, community participation in the management of water resources and water allocation [529]

The FAO Legislative Study[530] provides for an in-depth study of the dynamics of customary law in different African ethnic groups. In some areas in Namibia there are traditional/customary water rights practiced by rural communities that ensure sustainability of water resources. Because these practices are established over the years, they are critical considerations that need to be reflected in the law for the better management and voluntary enforcement of the laws. Customary laws or practices, if consistent with statutory laws, may also form the basis for community support for

[527] FAO/Food and Agricultural Organisation. 1997. 'Preliminary Report on National Water Resources Laws and Institutions in Tanzania.' *Water Law and Advisory Programme- GCP/INT/620/NET).* Rome: Food Agricultural Organisation.
[528] Kabudi, PJ, 2005. 'Challenges of legislating for water utilisation in rural Tanzania: drafting new laws.' In van Koppen, B. Butterworth J.A. and Juma I.J. (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.4.
[529] Ibid.
[530] Ramazzotti, M. 1996. 'Readings in African Customary Water Law FAO Legislative Study No. 58.' Rome: Food and Agricultural Organisation.

enforcement of statutory laws. Below is a consideration of a number of sub topics indicating that legal pluralism is a crucial but neglected concept in Namibian water law and recommendations are given conjunctively.

4.4 The 2004 Act and State Centrism

The state centricism of the 2004 Act and the 2000 Water Policy is self-evident: the Act adopted the constitutional position that all natural resources belong to the State. Thus it has expressly stated that all water resources in the country are administeref by the State, in centralised control of water resources by way of a top down approach to water management. This centralisation and top down administration has been done through statutory bodies like the water User Associations and Water Committees and in some areas through NamWater. This has far reaching implications for the management of water resources and provision of water services to the rural poor who have only limited access to state based systems, hence the fact that the Kwanyama Traditional Authority has voiced that water committees do not have legitimacy in their eyes, and they are "puppets of the Ministry" of Agriculture, Water and Rural Development.

In terms of Article 100 read together with Schedule 5 to the Namibian Constitution, all the land and natural resources on the land, and under the ground, within the territory belong to the State. According to Section 17 of the Communal Land Reform Act 5 of 2002, all land belongs to the State unless otherwise lawfully owned. In terms of Section 4 of the 2004 Act, ownership of water resources in Namibia below and above the surface of the land belongs to the State. The Water Resources Management Act thus gets rid of the hybrid system of 'private' and 'public' waters, abolishing the

concept of 'private ownership of water' which existed under the Water Act of 1956 (the 1956 Act).

This change brought about by the 2004 Act in turn means that a person can privately own land but not water on that privately owned land. This implies that there is a difference regarding water and land ownership in Namibia – a modification to the State's eminent domain over water resources which confirms the State's *dominus fluminis* (the overall right of control). This shows that, contrary to the 1956 Act, the current attention to water rights reform looks at ways of making water rights divisible from rights over land. This particularly applies to well-publicised cases in the Western United States, Chile, and Australia, where growing demand for water for non-agricultural uses in cities and industries creates pressure to transfer water away from agriculture.[531] However, from the point of view of much European statutory law, such as in Britain, water rights have been a subsidiary component of land rights.[532]

Section 16 of the 2004 Act provides a role for community groups, organised as water point user associations and local water user associations and their committees. These institutions help in the in the management of water resources at community level. The role of the abovementioned entities in the management of water resources and in provision of water services is thus clearly recognised. However, organisation and operation of these institutions is top down. It appears that there is not enough devolution of powers of management to the communities, but a top down bureaucratic

[531] Meinzen-Dick and Nkonya, 2005. Understanding legal pluralism in water rights: lessons from Africa and Asia. In van Koppen, B.. Butterworth, J.A and Juma, I.J. (eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.6.
[532] Hodgson, S. 2004. 'Land and Water – the rights interface. ' FAO Legal Papers Online 36. Rome: Food and Agriculture Organization.

system was maintained. In addition to this, as highlighted above, the role of traditional authorities is not spelt out in any way. It can be presumed that water user associations and their committees will include Traditional Authorities or they will work together, but it is a question of community choice which may not work as desired as proved in Ohangwena. This situation can be regarded as state centric in that the power is still exercised by the central government, who direct the abovementioned institutions on how to manage water resources in communal areas.

In the light of the above, the 2004 Act's design and operation are premised on the centrality – indeed monopoly – of central government systems and organs in the management of water resources as well as in the provision of water and sewerage services. It makes only limited provision for reliance on non-state based systems, institutions and mechanisms. More fundamentally, the 2004 Act continues the tradition of the law which it replaces of not recognising the existence in Namibia of a pluralistic legal framework. The 2004 Act seems to assume that the legal framework in Namibia is comprised of a monolithic and uniform legal system which is essentially state centric in nature. This position was measured against the perceptions of the community, as reported in Chapter 5 and was proved to be recipe for resentment and non-cooperation.

In the light of what has been highlighted above about the potential problems of the assumptions under the 2004 Act, it should be noted that the current review of this Act is a blessing in disguise in that it provides an opportunity for the reviewers and drafters to include plurality conscious provisions and spell out the role of Traditional Authorities and other customary community governance structures. This is an important consideration since if this is ignored, then the continued denial of the

existence in Namibia of a pluralistic legal framework is inimical to the success of the 2004 Act in meeting the rights and or needs of the rural poor, who, more than the urban based population, live within a legally pluralistic environment. Furthermore, in terms of Article 66 of the Constitution these structures are valid legal structures which should feature in all laws which need their cooperation.

There is enough proof that the so called modern State as it exists today is a 'late comer',[533] and in Namibia the rural poor, typically, live within normative frameworks in which state based law is no more applicable and effective than customary and traditional norms.[534] The new water law, however, ignores this reality. On this note it is recommended that, in order to address the circumstances of the rural poor, there is a compelling case for continued reliance in the management of water resources and in the provision of water services, on alternative and complementary frameworks drawn from community practices. This gives community systems due recognition and legitimates calls for the adoption of a pluralistic legal framework.[535]

4.5 Allocation of water rights

The allocation of water rights to communities has to be included in the Act in a very innovative drafting technique. But it is precisely through such innovative drafting of the provisions of the new law that the potential of the new law to address the needs and circumstances of the rural poor can be enhanced. Studies from Kenyan water law can be informative in this regard. Mumma studied water supply in rural Kenya and discovered problems similar to the ones in Namibia. One proposal which is also

[533] Horn, N. 2005. ''Eddie Mabo and Namibia: land reform and pre-colonial land rights.' *SUR, Human Rights Journal*. 3(2): 84-99.
[534] Hinz, M.O. 2003. *Without Hompas there will be no Game: Customary Law and Nature*. Windhoek: Out of Africa Publishers.
[535] Mumma, A. 2005. Kenya's new water law: an analysis of the implications for the rural poor. In van Koppen, B. Butterworth, J.A. and Juma, I.J. (eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. Pretoria: International Water Management Institute/IWMI, p12.

recommendable for Namibia was that with respect to the management of water resources, one possibility for enhancing the participation of local communities in water resources management is to utilise water resources users associations as an institutional mechanism for allocating water resources to a community based entity as opposed to an individual land owner.[536] The implications of this recommendation are that, in appropriate circumstances, a water resources use permit could be allocated to a water resources users association on behalf of all the members of the association.[537] The association would then in turn allocate the water resource to its members according to internally agreed rules. The association would also enforce its rules with respect to the use of the water resource in question.

The above proposal would enhance the role and authority of the water resources users associations. It would also utilise community compliance mechanisms as a supplement to the enforcement efforts of the central government or other governmental institutions. Its success, however, would depend on the cultivation of strong and effective water resources users associations – an issue of education, training or capacity building in general. It is recommended that the government support the nurturing of water resources users associations as institutional mechanisms for community management of water resources, observing a bottom up approach.[538]

We can also get insight from Burkina Faso. Studies on the water sector in Burkina Faso have shown that if we recommend the law to incorporate local laws and management structures in water law and sector reforms, we do not mean that we have

[536] Ibid.
[537] Ibid.
[538] Ibid.

to revive old customs as such. The challenge is not to reproduce old customs, but rather to catch their spirit in order to renew them and create new collective memories in the field of water.[539]

According to this study the following can help in succeeding in water law and sector reform for the benefit of the rural populace.

1. We take our inspiration from our collective atavistic memories;
2. We take into account the present exigencies;
3. We take into account the exigencies of the future generations.

According to Green Cross Burkina Faso, sustainable water culture is a matter of research, education, and provocation of a collective and individual awareness of responsibility.[540] This stands as one considers that traditional societies fed themselves from their environment, and thus maintain a particular relationship with it; this explains their vision of the world and all natural resources in it. Further, one should note that water management cannot fall only within the competence of the administrative authorities or institutions, although their cooperation is necessary.[541]

In Burkina Faso it was observed that for a successful and efficient rural water supply system there has to be has the participation of the local water users in traditional communities with their local laws and know-how. This participation is by far the most important aspect, and there will be willingness to pay for water if a sense of true ownership and control is injected into the people and practically manifested in the

[539] Green Cross Burkina Faso, 2009. Customary Law and Traditional Water Management: Case study concerning the Yatenga Province, Burkina Faso. Available at http://www.vanuatu.usp.ac.fj/library/Online/Customary_law/Zone.htm. Last accessed 25 April 2009.
[540] Ibid.
[541] Ibid.

interaction between the government and traditional community water users. Furthermore, in Burkina Faso it was noted that water law and sector reformers should take into account the vision of traditional communities and their knowledge about the resources around them, so that the implemented projects have more chance of concrete success.[542]

4.6 Training and capacity building

The government cannot just legislate the role of local communities and their traditional structures and sit back expecting them to do that is expected of them. It is recommended that training and capacity building in general be looked at as an important component of the recognition of traditional community practices and mechanisms in rural water supply. The government has been training water committee members though workshops and other meetings, but it should be noted that even if these ones are trained, the bureaucracy is top down, hence a negation of local water management laws. It is recommended that the training be a means to cultivate local knowledge and put it in perspective, especially when it comes to maintenance of modern infrastructure.

Furthermore, the rules governing water services providers at a national scale such as NamWater Act should take account of the need to foster and promote community water management structures as systems for meeting the water supply needs of the rural poor who are unlikely to receive attention from corporate operators, or financially hard pressed public systems.[543] This will take away the wrong perception of some NamWater officials who say:

> We cannot deal directly with traditional communities. We are a commercial entity and we provide water in bulk. If the community fails to pay, whom do we sue, or can we stand to lose

[542] Ibid.
[543] Ibid.

> just because it's a poor community? We have been talking with the Directorate [of Rural Water Supply] for a long time now to see whether we can deal with communities directly. We said that that is not possible, but we are still negotiating…[544]

Therefore the recommendation leads to some kind of a paradigm shift regarding how corporate entities treat water users in traditional communities. The corporatisation of the water sector is dealt with in more detail below. There is a need to build the capacity of water managers, users and other stakeholders on the importance of both formal and informal institutions at the catchment and grassroots levels specifically, where the formal-informal linkages are clearer.[545]

It was also discovered that governmental agencies are problematic, because they are continually changing personnel in charge of their water situations, and these people have to be trained to understand the requirements of their offices. According to Heyns,

> The need for functional specialization to perform in the arid Namibian water environment is a vital necessity, which is why the need for capacity building and innovative thinking is so important in the local water sector development and management activities. The notion that the performance in policy administration is more important than legal performance is very true. [546]

Heyns goes on to say that in the Namibian policy directives, the cooperation between the state and the public user has been favoured instead of legal action and punitive measures. As far as water administration is concerned, the need for a water pricing regulator in the water sector has been identified, but an appropriate institution still needs to be created to replace the present function of the Minister.[547]

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[544] Fieldnote .
[545] Sokile, C. Mwaruvanda,W. and van Koppen B. 2005, Integrated Water Resource Management in Tanzania: interface between formal and informal institutions. In B. van Koppen, J.A. Butterworth and I.J. Juma (Eds). *African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa.* Proceedings of a workshop held in Johannesburg, South Africa, 26-28 January 2005. International Water Management Institute/IWMI, Pretoria, p.11.
[546] Heyns, P. 2005. 'Water Institutional Reforms in Namibia.' *Water Policy* 7(1): 89–106, p101.
[547]Ibid.

Connected to capacity building is the issue of budgetary constraints. According to Mr. Pazvakawambwa, a Senior Planning Engineer at NamWater, one of the most serious constraints on institutional performance in the water sector of a developing country like Namibia is the relatively small budget made available for water resources administration, infrastructure development and operations.[548] This is further compounded by the effects of the non-payment for water services.

Heyns notes another problem connected to the above when he says that the implementation of the 2000 Water Policy and the replacement of existing institutions, as adopted in Namibia after the water sector review, did not take place with immediate effect as anticipated. It has become clear after three years that a more gradual process is now indicated to achieve changes that go with feasibility and ultimate effectiveness to the benefit of integrated water resources management. This approach is supported by one of the outcomes of the study.

5. The right to water and public participation in a pluralistic society

As highlighted in passing above, in water laws of most States in Africa, there is a central tension between neo-liberal treatment of water as an 'economic good' and an 'internationalist' humanitarian principle that sees access to water as a human right, which is reflected in debates over reform of water governance.[549] From the views of the respondents recorded in Chapter 6, it appears that this was meant to stand as an

[548] Fieldnote .
[549] See Hellum A. and Derman, B. 2004. 'Re-Negotiating Water and Land Rights in Zimbabwe: Some Reflections on Legal Pluralism, Identity and Power'. In Murison, J. Griffiths A. and King K. (eds), *Remaking Law in Africa: Transnationalism, Persons and Rights.* Edinburgh: Centre of Africa Studies. p. 235; Pienaar GJ. and van der Schyff, E. 'The History, Development and Allocation of Water Rights in South Africa'. In Tempelhoff, JWN. (ed.). 2005. *African Water Histories: Transdisciplinary Discourses*. Vanderbijlpark: North West University; Manzungu, E. 1999 Senzanje, A. and van der Zaag, P. (eds), *Water for Agriculture in Zimbabwe: Policy and Management Options for the Smallholder Sector*. Harare: University of Zimbabwe Publications. Manzungu E. and Kujinga, K. 'The Theory and Practice of Governance of Water Resources in Zimbabwe', *Zambezia*, 29(2):195–216.

incentive to all water users so that conservation of water in a country affected by scarcity becomes a collective responsibility.

The responses reported in Chapter 6 point to the probability that the government approached water rights from a New Institutional Economics Perspective. From this perspective, property rights in water are seen as an institution that serve as a source of incentives for individual and group behaviour governing water use. They serve as a mechanism for avoiding externalities in the use of water and averting what is popularly called the tragedy of the commons.[550] They generate incentives for efficient resource use and for avoiding depletion and overexploitation. Thus, they are seen as a means of addressing what is called the 'incentive gap' in Indian irrigation.[551]

The researcher does not view water rights from this perspective. Instead, water rights should be viewed from a legal pluralistic perspective. In Namibia different sources of property rights co-exist at the same time and have different but related validity. In this case customary water rights, statutory water rights and common law water rights co-exist in Namibian law. More often than not rural communities are confronted by customary water rights and statutory water rights at the same time. This goes along the concept of legal pluralism which as a reminder is "duplicate nature of institutions, rules, and processes, also, the relationship between different normative systems."[552] Legal pluralism is an umbrella concept indicating the condition that more than one legal system or institution co-exists with respect to the same set of activities.[553] For

[550] Hardin, G. 1968. 'The tragedy of the commons'. *Science*, 162(1): 1243-1248.
[551] Saleth, R.M. 1996. *Water institutions in India: Economics, law and policy*. New Delhi: Institute of Economic Growth, Commonwealth Publishers; Saleth, R.M.; Dinar, A. 2005. 'Water Institutional Reforms: theory and practice.' *Water Policy* 7 (1): 1-19.
[552] von Benda Beckmann, F. 1988. 'Comment on Merry.' *Law and Society Review* 2(5): 897-901.
[553] Ibid.

instance, statutory law may co-exist with customary law and socially accepted conventions and practices.[554]

In the review of the 2004 Act it should be noted that a legal pluralistic perspective is the most beneficial way of legislating water rights. As Narain puts it, when following this perspective it should be noted that the focus is not the legal system or property rights system per se, but the individual water user, especially those in traditional communities, who are confronted with different legal or normative systems pertaining to the use and management of water.[555] Second, a legal pluralistic premise requires the recognition of different bases of legitimacy in water rights. State law and property rights emanating from the State have their legitimacy in the State; customary law, conventions and practices, have their legitimacy in a system of social sanction.[556]

Essentially, a perspective of legal pluralism sensitises us to the fact that there may be more than one source of water rights.[557] Customary rights are often found to co-exist

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[554] Three major ideas run in the writings on legal pluralism. First, there is a questioning of legal centrism, namely, that all legal ordering is rooted in state law (Merry, S. E. 1988. 'Legal Pluralism.' *Law and Society Review* 22 (5): 869-896; Griffiths, J. 1986. 'What is legal pluralism?' *Journal of Legal Pluralism and* Unofficial Law, 24(2): 1-56; Spiertz, J. Wiber, M. 1996. 'The Bull in the China chop. Regulation, Property Rights and Natural Resource Management: An Introduction.' In Spiertz J. and Gravenhage WM. (eds). *The Role of Law in Natural Resource Management*. The Hague: Gravenhage WGA Uitgeverij. Furthermore, what is considered to be a legal system is hardly a system because it is not coherent or complete (Spiertz and Wiber, 1996, *supra*). The second idea, which is related to the first, is that of the coexistence of several normative orders. An individual finds himself at the converging point of multiple regulatory orders (Vanderlinden, 1989 *supra*). There is an interplay of plural normative frameworks in society; rules, law and institutional frameworks are independent social resources that actors mobilize to accomplish their ends (Spiertz, HLJ.; de Jong, IJH. 1992, *supra*. Traditional Law and Irrigation Management: The Case of Bethma. In Irrigators and Engineers: Essays in Honor of Lucas Horst,. Diemer G. and Slabbers J. eds. Amsterdam: Thesis Publishers. pp. 185-201. Third, there is recognition that legal pluralism is all pervasive (Merry, 1988 *supra*; Griffiths 1986, *supra*). Legal pluralism is present in all societies; the difference being only a matter of degree.

[555] Narain, V. 2009. 'Water Rights System as a Demand Management Option: Potentials, Constraints and Prospects.' In Saleth, R. M., ed. 2009. *Strategic Analyses of the National River Linking Project (NRLP) of India, Series 3. Promoting irrigation demand managment in India: Potentials, problems and prospects.* Colombo, Sri Lanka: International Water Management Institute, pp127-145.

[556] Ibid p.129.

[557] Bruns, BR. and Meinzen-Dick RS. (eds). 2000. *Negotiating water rights*. New Delhi: Vistaar Publications and London: IT Publications.

along with rights sanctioned by the State. This, according to Naran[558] who writes about Indian Water law, can, and has often been, a cause of conflict over water. This is evidenced in Namibia as well, as Chapters 5, 6 and 7 have shown. Furthermore, legal pluralism helps us question the premise that no property rights exist. A situation where there are no state sanctioned rights could be interpreted to be a situation of 'no property rights existing', when in practice, there may be a system of rights and mutually constitutive obligations devised and followed by the community, as often observed in community-based systems of irrigation management.[559] Finally, according to Naran, legal pluralism can be applied to a gendered analysis of property rights, in how men's and women's access to water may be socially differentiated.[560] Naran commenting on what is happening in India sums it up:

> While new institutionalist perspectives emphasize the need for creating a property rights structure in order to correct the incentive structure facing water users, legal pluralistic perspectives sensitize us to the fact that more than one set of property rights might co-exist.[561]

A recommendation made to the Indian law and policy maker by Naran can also be made to the Namibian law and policy maker as well, that any effort at creating a new property rights structure must be cognisant of how it will articulate pre-existing notions of property rights. In this context, there is a need to distinguish between water allocation and distribution, or between concretised rights and materialisation of rights. Statutory rights may be granted by the State.

However, according to Naran, individuals may mobilise social relationships in order to make these rights more effective.[562] Water rights may be defined by state law, but realised through another normative system, based on social relationships. This has

[558] Narain, V. 2003. *Institutions, technology and water control: Water users associations and irrigation management reform in two large-scale systems in India.* Hyderabad, India: Orient Longman, p.244.
[559] Ibid.
[560] Ibid.
[561] Ibid, p.129.
[562] Ibid, p.130.

been observed, for instance, in the Warabandi system of irrigation prevalent in the Northwest Indian state of Haryana,[563] as also revealed by similar studies in Pakistan.[564] In Namibia a legal pluralistic rights structure is likely to play a more important role in organising access to water, namely, defining who gets water, and how much, rather than as a means of managing or curtailing water demand, as a top-down public policy measure.

According to Fontein,[565] writing about public participation in rural water supply:

> "set in postcolonial contexts of historical inequalities of access to water resources (which often reflect other dimensions of inequality such as land ownership) as well as international developmental concerns with accountable governance, stakeholder participation, and the sustainable use of scarce natural resources, ongoing contentions over national water strategies cut to the very heart of competing imaginations of 'stateness', citizenship and the form and functions of the postcolonial state."[566]

The failure to make the link between water services provision and economic benefit to particular community members together with the assumption that water services are a social service is further evidence of the existence of pluralistic normative frameworks among poor rural communities. Such communities will face real difficulty in making the transition to the new legal framework, which is premised on the belief that water

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[563] Narain, V. 2003 *supra*.
[564] Merry, D.J. 1986a. 'Reorganizing Irrigation: Local level management in the Punjab (Pakistan).' In Merry D.J. and Wolf, J. *Irrigation Management in Pakistan: IIMI Research Paper No. 4*, pp. 26-43. Colombo - Sri Lanka: International Irrigation Management Institute. Merry, D.J. 1986b. 'The sociology of warabandi: A case study from Pakistan. In Merry, D.J. and Wolf, J. 1986. *Irrigation Management in Pakistan: IIMI Research Papers.* Colombo - Sri Lanka: International Irrigation Management Institute, pp. 44-61. Meinzen-Dick, R.S. 2000. 'Public, private and shared water: Groundwater markets and access in Pakistan.' In Bruns, B.R. and Meinzen-Dick, RS (eds.) *Negotiating Water Rights, International Food Policy Research Institute*. Washington, D.C. New Delhi: Vistaar Publications, pp. 245-268.
[565] Fontein, J. 2008, 'The Power of Water: Landscape, Water and the State in Southern & Eastern Africa. An Introduction.' *Special Issue of Journal of Southern African Studies*, 34(4):737 -756.
566 One good example here is Mary Galvin and Adam Habib's discussion of how the South African government's rural water sector policies, supported by international donors, claim to promote 'community-orientated' decentralisation of government but often effect 'state-centric forms of decentralisation', see Galvin M. and Habib, A. 2003. 'The Politics of Decentralisation and Donor Funding in South Africa's Rural Water Sector.' *Journal of Southern African Studies*, 29(4): 865–84.

services must be operated "on a commercial basis and in accordance with sound business principles".[567]

Under the present circumstances, laws, policies and practices that prioritise the needs of the poor have great urgency. The current emphasis upon commercial water may be appropriate for many users but not for the growing number of communal and resettlement farms engaged in small-scale irrigation.

6. The interactive politics of water institutions

Institutions are wide, complex and varied.[568] They range from formal, well-established policies and legislative and organisational set ups that are interwoven from central, basin catchment to local levels on the one hand, and an elaborate, complex customary institutional mix embedded in local informal relations, which involves customs, traditions, norms, culture and local practices on the other hand. According to Sokile, both formal and informal arms of institutions are important in water management, and they are fully interdependent.

> As such they display a wide array of types of interfaces. Various interfaces of formal and informal institutions have been illustrated above, including the interfaces between centralized and local institutions, formal water rights and customary rights, Water User Associations and informal associations of water, formal and informal power relations, and the complexity of institutional interfacing. As displayed in these cases, especially at the grassroots level, the formal ones may not be successfully operational without the informal ones, and vice versa. [569]

In Namibia there are no full-fledged mechanisms as yet to better align the formal and informal institutions in rural water supply. In some communities there is only superficial contact among similar institutions, resulting in uncoordinated interventions, bypass and duplication of efforts, while in other communities there are troublesome overlaps resulting into power struggles and collisions in operation

[567] Mumma, 2005, *supra*, p.5..
[568] Sokile, *et al*. 2005, *supra*, p.11.
[569] Ibid.

mechanisms.[570] This implies a challenge to the bureaucracy in the ongoing water reforms that new initiatives may frustrate ongoing efforts or may not bring an added value whatsoever.

It is recommended that formal institutions, i.e. policy and legislation on water resources management, should assign more room for the other side of the coin -- the informal side, as it has a lot to offer for achieving today's water management imperatives.[571] Furthermore, water managers at different levels should appreciate formal-informal interfaces and encourage the better coexistence of the two arms at various tiers and prefectures of water resources management.[572] As highlighted above, there is also a need for a comprehensive study to examine the formal-informal institutional linkages and interface mechanisms especially at the grassroots level. The successful cases of the formal-informal institutional interfaces should be encouraged and be emulated for better use elsewhere.[573]

Currently the water resources laws do not make provisions for recognition of traditional governance structures in water management. This is one of the gaps in the legislation that needs to be addressed. The Food and Agricultural Organisation (FAO) of the United Nations says that "The non-recognition of traditional or customary water users is at the root of many water use conflicts."[574] This has already been seen in communities like Kavango, where often community members fight over water when a water point is not functional and the affected community wants to get water

[570] Ibid.
[571] Ibid.
[572] Ibid.
[573] Ibid.
[574] FAO. 1997, *supra*.

from another water point belonging to another village. In Ohangwena this was reflected among the Kwanyama through the views of their Traditional Authority.

Studies in Tanzania have shown that even in cases where customary practices conflict with the objectives of the water resources laws, awareness and enforcement efforts may help to change the existing practice.[575] Following Kambudi's recommendations in Tanzania, in trying to include the application of customary law, the following tentative provisions are recommended for consideration for inclusion in one of the water laws. The recommended points for inclusion in the law being reviewed at the moment are as follows:

- Definition of customary water rights
- Incidents of customary law water rights
- Grant and management of customary water right
- Grant of customary water right[576]

7. Rural water supply and decentralisation

It is recommended that the intended decentralisation of rural water supply be continued. Stopping the process or suspending it as is the case now will just deprive the communities of participation in rural water management since Regional Councils are more accessible to the rural residents.

Decentralisation of provision of public services is considered essential for improvement in the efficiency of the public sector. There is common agreement that fully centralised governance systems are mostly inefficient because of high

[575] Kabudi, 2005, *supra*.
[576] Ibid.

transaction costs.[577] Nonetheless, tendering full decentralisation as the only solution is viewed as naive and is increasingly challenged.[578] The table below, adopted from Falk, Kirk and Bock, summarises the advantages and limitations of a fully decentralised natural resource management systems.

Table: 8. Advantages and limits of fully decentralised natural resource management systems (based on Ostrom, 2005).[579]

Advantages	Limitations
accurate mental models of local biophysical and institutional systems;	some appropriators will fail to organise;
disaggregated feedback of resource system responses is provided;	some self organisations are undemocratic;
reliance on informal institutions reduces the need for costly formal ones;	stagnation;
better adapted rules to local biophysical and institutional systems;	inappropriate discrimination;
easier monitoring of rules;	limited access to scientific information;
self created rules are seen as being more legitimate and therefore conformance is higher;	potential conflicts between users;
competition of parallel autonomous systems;	inability to cope with large scale common pool resources.

Whereas decentralisation is encouraged, it is recommended that Namibia should face the challenge of designing institutional mechanisms that capitalise on the advantages of a decentralised arrangement, while relying on back−up systems that can offset imperfections or limitations.[580]

The standard argument provided by the theory of fiscal federalism is that within a region there is varied preference. Communities will be able to decide on localised

[577] Falk, T.; Bock, B. and Kirk, M. 2009. 'Polycentrism and poverty: Experiences of rural water supply reform in Namibia.' *Water Alternatives* 2(1): 115-137.
[578] Ostrom, E. 2005. *Understanding institutional diversity*. Princeton: Princeton University Press.
[579] Source: Falk T. et al. 2009, *supra*.
[580] Andersson, K.P. and Ostrom, E. 2008. 'Analyzing decentralized resource regimes from a polycentric perspective.' *Policy Sciences* 41(1): 71- 93.

ideas about water management. More than 90% of water in Otjozondjupa is consumed by cattle, while in Ohangwena only about 30% is consumed by cattle.[581] These differences mean that water uses vary, and hence community preferences. Furthermore, rural communities will be able to make decisions based on local needs as opposed to receiving blanket ideas always from the central government; this will be akin to the semi autonomous nature of Homelands, but of course with variations.

In the water sector, decentralisation and community participation not only distribute responsibilities but often also externalise maintenance and operation costs to users.[582] The 2000 Water Policy read together with the NamWater Act of 1997, as amended, moves away from the concept of blanket subsidisation to 'user pays' principle. According to Falk, Kirk and Bock, this principle is applied as financial, economic and environmental too.[583]

Attempts to devolve management and financial responsibility for water supply to users can be observed all over the world.[584] According to Falk, Kirk and Bock, the similarity of the reform approaches indicates the impact of international policy

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[581] Angula H. 2008. 'Reply to H. McVenaani on rural water supply and rural economies.' Windhoek: Parliament of Namibia.

[582] Jaglin, S. 2002. 'The right to water versus cost recovery: Participation, urban water supply and the poor in sub-Saharan Africa.' *Environment and Urbanization* 14(1): 231-245.; Vavrus, F.K. 2003. 'A shadow of the real thing: Furrow societies, water user associations, and democratic practices in the Kilimanjaro region of Tanzania.' *The Journal of African American History* 88(4): 393-412.

[583] See also Cornish, G.A. and Perry, C.J. 2003. *Water charging in irrigated agriculture*. Report OD 150. Wallingford, UK: HR Wallingford and Molle, F. and Berkoff, J. 2007. 'Water pricing in irrigation: Mapping the debate in the light of experience.' In Molle, F. and Berkoff, J. (Eds), *Irrigation water pricing: The gap between theory and practice*. Oxfordshire: CAB International, pp. 21-93.

[584] Falk, Kirk and Bock 2009, *supra*, quoting Gleick, PH. 1998. 'Water in crisis: Paths to sustainable water use.' *Ecological Applications* 8(3): 571-579; Azizi, MM. 2000. 'The user pays system in the provision of urban infrastructure: Effectiveness and equity criteria.' *Urban Studies* 37(8): 1345-1357; Neubert, S. Scheumann, W. and van Edig, A. 2002. *Reforming institutions for sustainable water management*. GDI Reports and Working Papers 6/2002. Bonn: GDI; Jaglin, S. 2002. 'The right to water versus cost recovery: Participation, urban water supply and the poor in sub-Saharan Africa.' *Environment and Urbanization* 14(1): 231-245; Vavrus, F.K. 2003. 'A shadow of the real thing: Furrow societies, water user associations, and democratic practices in the Kilimanjaro region of Tanzania.' *The Journal of African American History* 88(4): 393-412.

documents such as the Dublin Statement on Water and Sustainable Development as well as global players such as the World Bank and international development agencies.

> Decentralisation, participation and commercialisation are always the fundamental guiding principles. There seems to be the tendency that reforms are successful if water users are equipped with sufficient human, social and financial capital (Marshall, in press). Examples of successful pro-poor water policies are, however, rare. In developing countries, cost recovery rates of water supply are low, particularly because of the low income of users.[585]

In the African context, water users still carry, in most cases, the burden of past discriminatory policies, resulting in low education, poverty and inequity. Different analysts conclude that under such circumstances water users do not have the capacity to fully take over institutional and financial responsibility for their water supply, and reforms often translate into state disengagement.[586]

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[585] Falk, Kirk and Bock 2009, *supra*, p133.

[586] Falk, Kirk and Bock 2009, *supra*, p133 quoting Vavrus, F.K. 2003. 'A shadow of the real thing: Furrow societies, water user associations, and democratic practices in the Kilimanjaro region of Tanzania.' *The Journal of African American History,* 88(4): 393-412.

List of Fieldnotes

(names of people interviewed, their locations and positions)

1. **Honourable Nashandi Nicky P**.: *Member of Parliament* – Namibia National Assembly

   Head of delegation: Parliamentary Standing Committee on Economics, Natural Resources and Public Administration, public hearings on Rural Water Supply

2. **Honourable. Thighuru J.H:** Governor – Kavango Region

3. **Koch Henry:** *Undersecretary (Acting)* – Ministry of Agriculture, Water and Rural Development

   Director: Directorate of Rural Water Supply. Ministry of Agriculture, Water and Rural Development

4. **Witbooi F:** *Deputy Director* – Division: Law Administration: Ministry of Agriculture, Water and Rural Development

5. **Godfrey Pazvakawambwa:** *Senior Planning Engineer*: Infrastructure & Water Resources Planning. Namibia Water Corporation (NamWater)

6. **Kaliki Kambanda:** *Senior Planning Engineer*: Infrastructure Planning. Namibia Water Corporation (NamWater)

7. **Goodwill Shikongo:** *Development Planner* – Ministry of Local Government and Housing. Windhoek

8. **Clifton Sabati:** *Deputy Director* - Ministry of Local Government and Housing

9. **Mr. Mapareko:** *Regional Head*: Kavango Rural Water Supply

10. **Ms. Hamufenu:** *Regional Head* (acting) –Rural Water Supply. Ministry of Agriculture, Water and Rural Development – Ohangwena Regional Office

11. **Mr. Katjakura:** *Director*. Planning and Development Otjozondjupa Regional Council

    Director (*Acting*): Rural Services: Otjozondjupa Regional Council

12. **Sampati Roux:** *Deputy Director* – Rural Services: Otjozondjupa Regional Council

13. **Ngutonua Ludwig:** *Control Officer*. Ministry of Agriculture, Water and Rural Development – Otjozondjupa Regional Office

14. **Anonymous 1:** Ministry of Agriculture, Water and Rural Development – Windhoek

15. **Anonymous 2:** Ministry of Agriculture, Water and Rural Development – Otjozondjupa Regional Office

16. **Kaundu Alfons:** *Chief/Hompa* – Mbunza Traditional Authority – Kavango Region

17. **Kwanyama Traditional Authority**. Omhedi Village – Ohangwena Region

18. **Shafombabi Simon**: *Headman* – Ondjito Village Chairperson – Ondjito Water Point - Ohangwena Region

19. **Nakamela Abraham***: Headman* – Omundundu Village Chairperson – Tuhafilwanghenda Water Point – Ohangwena Region

20. **Matheus Festus:** *Vice Headman* – Onangama Village Chairman – Okambembe Okafitu Branch – Ohangwena Region

21. **Hihua Ngombo**: *Councillor* – Mbunza Traditional Authority Kapako Village – Kavango Region

22. **Emmanuel Teresia**: *Councillor* – Headwomen's Council Epingiro – Kavango Region

23. **Hurika Bonastus**: *Councillor* – Kambazembi Royal House – Okondjatu Settlement Area – Otjozondjupa Region

24. **Karokore Jesaya**: *Traditional Councillor* – Member of the Water Committee – Ekwenye Village – Otjozondjupa Region

25. **Nguyapewa Jesaya**: *Traditional Councillor* – Ovikango Village – Otjituuo – Otjozondjupa Region

26. **Kawari Edward:** *Senior Councillor* – Kambazembi Royal House – Okamatapati – Otjozondjupa Region

27. **Katjitundu Isaskara:** *Councillor* – Herero Traditional Authority – Okamatapati – Otjozondjupa Region

28. **Timotheus Timotheus:** *Chairperson* – Hamwala Village Community Council – Ohangwena Region

29. **Andreas Joel:** *Chairperson* – Ofifiya Water Point – Ondingwanyama Village – Ohangwena Region

30. **Haufiku Johannes:** *Member* – Water Committee – Makena Village – Kavango Region

31. **Shindimba Donatus:** *Chairperson* – Water Committee Epingiro I – Kavango Region

32. **Kaputjiza Peter:** *Traditional Councillor* – Ekwenye Village – Otjozondjupa Region

33. **Katembo Petrus**: *Pump Boy* – Epingiro I Water Committee – Kavango Region

34. **Kaputjaza Natalia:** *Treasurer* – Water Committee – Ekwenye Village – Okondjatu – Otjozondjupa Region

35. **Muese Seba:** *Secretary* – Water Committee – Ekwenye Village Okondjatu– Otjozondjupa Region

36. **Helao Maria**: *Secretary* – Ofifiya yelao Water Committee – Eembidi da Kapuka Village – Ohangwena Region

37. **Helao Emmanuel:** *Plumber/Caretaker* – Ofifiya Yelao Water Committee – Eembidi ya Kapuka Village – Ohangwena Region

38. **Mandume Hendrina:** *Secretary* – Harodi Repono Water Committee – Ohangwena Region

39. **Nakamela Titus:** *Treasurer* - Harodi Repono Water Committee – Ohangwena Region

40. **Shaduka Simon:** *Caretaker* - Harodi Repono Water Committee – Ohangwena Region

41. **Hamukoto Albertina**: *Treasurer* – Ndjiva Water Point Mafunda Village – Ohangwena Region

42. **Kanime Tinelao:** *Member* – Harodi Repono Water Committee – Ohangwena Region

43. **Hangala Victoria:** *Treasurer* – Ofifiya Water Point – Ohangwena Region

44. **Albertina Michael:** *Treasurer* – Ofifiya Water Point – Ohangwena Region

45. **Nghilunwa Victoria**: *Caretaker* – Hardap Dam Water Point Committee – Omauda Village – Ohangwena Region

46. **Shihepo Werner**: *Principal* – Oshimwaku Combined School Member – Mwanyekele Water Committee – Ohangwena Region

47. **Fredrick Kanyuumbo**: *Agricultural Extension Officer*: Eenhana – Ohangwena Region

48. **Mr. Hausiku:** *Agricultural Extension Officer*: Onambutu – Ohangwena Region

49. **Muronga Johana:** Epingiro I Village resident – Kavango Region

50. **Kasiku Lydia:** Epingiro I Village Resident – Kavango Region

51. **Hausiku Regina:** Epingiro I Village Resident – Kavango Region

52. **Daniel Loide:** Epingiro I Village Resident – Kavango Region

53. **Hausiku Andreas:** Epingiro I Village Resident – Kavango Region

54. **Hausiku Susan:** Sakwiza Regina Village Resident – Kavango Region

55. **Murongo Elizabeth:** Kapako Village Resident – Kavango Region

56. **Sakaria Anelie:** Kapako Village Resident – Kavango Region

57. **Hakusembe Methodia**: Kapako Village Resident – Kavango Region

58. **Hakusembe Loide**: Kapako Village Resident – Kavango Region

59. **Murongo John**: Kapako Village Resident – Kavango Region

60. **Mbauze Roza:** Kapako Village Resident – Kavango Region

61. **Sloma Albert:** Sivara Village Resident – Kavango Region

62. **Ngombo Salomon:** Sivara Village Resident – Kavango Region

63. **Kauganga Malendu John:** Sivara Village Resident – Kavango Region

64. **Situndu Petrus:** Sivara Village Resident – Kavango Region

65. **Mpasi Manuel:** Swara Village Resident – Kavango Region

66. **Hangara Mattheus**: Okashipara Plot I – Okondjatu – Otjozondjupa Region

67. **Hei Ernst**: Okashipara Plot 2. Okondjatu - Teacher– Otjozondjupa Region

68. **Stephanus Hipikuruka**: Okatohoro Plot 2 – Farmer – Otjozondjupa Region

69. **Kandukira Abuind**: Otjiwanateya Village – Farmer – Otjozondjupa Region

70. **Matuzee Emgard:** Ovikango Village Resident Otjituuo – Otjozondjupa Region

71. **Dire Godfrey:** Ovikango Village Resident – Otjozondjupa Region

72. **Kavendjii Ivondier:** Ohakane – Okakarara Resident – Otjozondjupa Region

73. **Kaaronda Sidney**: Ohakane Village Resident Okakarara – Otjozondjupa Region

74. **Manase Otilia**: Okatuuo Village Resident Okakarara – Otjozondjupa Region

75. **Nguapia Magdalena**: Okatuuo Village Resident Okakarara – Otjozondjupa Region

76. **Ndura Christophene:** Okatuuo Village Resident Okakarara – Otjozondjupa Region

77. **Katjivikua Erastophene**: Okatuuo Village Resident Okakarara – Otjozondjupa Region

78. **Mufeti Julia**: *Teacher* – Omundundu Combined School – Ohangwena Region

79. **Kanime Helena:** Matunda Village Resident – Ohangwena Region

80. **Raphael Sinkomba**: Sivara Village Resident – Kavango Region

81. **Leya Matuzee:** Teacher – Ovikango Village – Otjozondjupa Region

82. **Group Interview 1: 4 people -** Sivara Village Residents – Kavango Region

83. **Group Interview 2: 8 people –** Sivara Village Residents – Kavango Region

84. **Group Interview: 3 people** – Kapako Village – Kavango Region

85. **Group Interview 2:**6 **people** – Okamatapati Settlement Area – Otjozondjupa Region

86. **Group Interview: 4 people** – Epingiro 2 Village Residents

87. **Group Interview**: **5 people –** Otjituuo Settlement Area. Otjozondjupa Region

88. **Anonymous 1**: Okamatapati Settlement Area – Otjozondjupa Region

89. **Anonymous 1**: Kapako Village – Kavango Region

90. **Anonymous 2:** Kapako Village – Kavango Region

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