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**Institutions, Institutional Linkages and Sustainable
Water Resources Management : a case of Zimbabwe's
Mazowe Catchment**

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Institutions, Institutional Linkages and Sustainable Water Resources Management

A Case of Zimbabwe's Mazowe Catchment

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Abstract

In the 1990s neo-liberal environment, a blend of eco-catastrophic shocks, international thinking on integrated water resources management (IWRM) discourse and domestic equity imperatives on the part of the central government; set the public water sector in Zimbabwe on a reform course and ushered in new water management rationalities.

Where sectoral planning had constituted the rationality of officialdom, these vicissitudinous reforms sought to introduce – albeit in a more radical manner – integration. Where centralism constituted the practice of water management, the water reforms translated into a blend of decentralization and centralism. These reforms reinvented the Department of Water Development into the Zimbabwe National Water Authority (ZINWA), decentralized to seven catchments in line with the hydrological approach to water resources management. In tandem with IWRM's principle of involving stakeholders in participatory water resources management, ZINWA works in a secretariat relationship with stakeholder Catchment Councils made up of representatives from Sub-Catchment Councils – who in turn represent water users in Water User Boards (WUB). With regards to equity, the PDS was scrapped off and replaced by more evanescent water permits and agreements that can be revised when more water is demanded. Using the case of Zimbabwe's Mazowe Catchment, the study examines the modes of interactions among institutions in land and water management.

Whereas from time to time, both colonial and postcolonial governments crafted numerous institutions to regulate access to natural resources in ways that at once affected equity in resource access and subscribed to larger governmentality objectives, this has translated into some form of institutional pile-up. Thus, the ways in which the colonial and postcolonial government addressed access and equity issues in natural resource use were, to a larger extent, consequential to institutional configuration in land and water management. Although stakeholder institutions have been crafted to foster integration, the study finds that institutions involved in the management of land and water resources have poor associational relationships – obfuscated mandate based roles, and lines and direction of accountabilities. There is among these institutions a dearth of evaluation criteria including any review mechanisms. Consequently, there is on the one hand, an apparent confusion of precinct, and a salience of lack of compulsion of duty among institutions that should implement integrated water resources management, on the other.

Formulation and implementation of a catchment master plan, it is suggested, could be a potent tool to align institutions into desirable modes of interaction that eventually translate into productive and sustainable integrated water resources management.

Key Words:

Institutional pile-up, institutional Associational relationships, confusion of precinct, evaluation criteria, direction accountability

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Table of Contents

Abstract	i
Acknowledgements	ii
List of Contents	iii
List of Tables	vii
List of Figures	vii
List of Maps	vii
List Annexes	vii
List of Acronyms	viii
CHAPTER ONE: INSERTING THE AQUATIC FACTOR: A RECONSTRUCTION OF ZIMBABWE'S WATER HISTORY	1
1.0. Historical Context, Thesis Outline	
1.1. Introduction	1
1.2.1. A History of Exclusion, Impoverishment and Improvement	6
1.2.2. A Parliamentary Form of Robbery	10
1.2.3. Confronting the Legacy of Exclusion and Impoverishment: Post-Independence Experience	15
1.2.4. Post-1990 Resettlement	21
1.2.5. The Cadastral Political Climax	23
1.2.6. Water and Land Reforms: Interfaces and Contradictions	24
1.3. Thesis Outline	28
CHAPTER TWO: BACKGROUND AND RESEARCH PROBLEM	29
2.1. Introduction	29
2.2. 1990s Global Trends in Water Management	30
2.3. Overview of Zimbabwe's Water Reforms	36
2.4. Aim of the Study	41
2.5. Objectives of the Study	41
2.6. Justification	41
2.7. Institutions: A Conceptualization	43
2.8.1. Functionalist Approach	47
2.8.2. Rational Choice Theory	48
2.8.3. New Institutionalism	48
2.8.4. Actor-Oriented Approach	50
2.9.0 Theoretical Positionality of the Study	51
2.9.1 Definition of Key Concepts	51
CHAPTER THREE: RESEARCH METHODOLOGY & METHODS	54
3.1. Introduction	52
3.2. A note on the Identity of the Researcher	55
3.3. Epistemological Positioning of the Research	57
3.4. The Case Study	59
3.4.1. Study Area	59
3.5. Methods within the Case Study Context	63
3.5.1. Unstructured in-depth interview	63
3.5.2. Conversation Analysis	64
3.5.3. Participant Observation	65
3.5.4. Secondary Sources	66
3.6. Ethical Imperatives	68
CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION	71
4.1. Introduction	71
4.2. Institutions in Water Resources Management	72
4.2.1. Micro Level Institutions	75

4.2.1.1	Political Party Cells, New Traditional Leadership and VIDCOs	75
4.2.1.2.	A2 Farmer Syndicates	80
4.2.1.3.	Environmental Committees and Subcommittees	81
4.2.1.4.	The Water User Board	82
4.2.1.5.	Land Committees	82
4.3.	Middle Level Institutions	82
4.3.1.	The Sub-Catchment and Catchment Councils	82
4.3.2.	Political Leadership	83
4.3.3.	Modern Leadership	84
4.3.4.	Traditional Leadership	84
4.3.5.	Government Bureaucracies	85
4.4.1.	Institutional Associational Relationships	85
4.4.2.	Institutional Interaction within the Catchment Council	93
4.4.3.	Associational Mechanisms, Representation	97
4.4.3.1.	Associational Mechanisms	97
4.4.3.2.	Representation in Stakeholder Participation	103
4.5.0.	Temporal Institutional Linkages: Enterprise Farming Area	106
4.6.0.	Incentives and Sanctions	109
4.7.0.	Institutional Performance	113
4.7.1.	Mubvinzi Water User Board	114
4.7.3.	Catchment Councils	115
4.7.3.	Conflict Resolution	115
4.8.0.	Institutional Pile-up and Sustainable Water Resources Management	119
4.9.0.	Multiple Identities and Salience of Ruling Party Politics	122
CHAPTER FIVE: SUMMARY, CONCLUSION & RECOMMENATIONS		125
5.1.	Summary	124
5.2.	Conclusion	125
5.3.	Recommendations	131
5.3.1.	Crafting Institutions: Prescription	131
5.3.2.	Enhancing Institutional Fit	131
5.3.2.1.	Specifying Institutional Associational Relationships	131
5.3.2.2.	Building Capacity of WRM Institutions	135
5.4.	Incentives and Sanctions	135
5.5.	Role Specialization in Stakeholder Institutions	136
5.5.1.	Conflict Resolution Committee	137
5.5.2.	Catchment Finance and Logistics Committee	137
5.6.	Input-Process-Out-put Planning	138
5.7.	Areas for Further Research	138
REFERENCES		139

List of Tables

Table 1, 1	Smallholder irrigation schemes in communal and Resettlement areas as of 1997	19
Table 1, 2	Distribution of irrigated area before and after The 2000 Fast Track	27

List of Maps

Map 2, 1	Zimbabwe Catchment Boundaries	39
Map 3, 1	Mazowe Catchment and Study Site	60
Map 3, 2	Nyagui Sub-Catchment and Study Site	61

List of Figures

Figure 2.1	Schematic Representation of IWRM	32
Figure 4, 1	Institutions in Water Resources Management	74
Figure 4, 2	Specifying Institutional Associational Relationships	134

List of Annexes

Annexure 1	Zimbabwe Hydrological Map Showing the Seven Catchments	147
Annexure 2	Mazowe Catchment Map Showing the 10 Sub-Catchments And the Study Site	148
Annexure 3	Nyagui Sub-Catchment Map Showing the Study Area.	149

List of Acronyms

AREX	Agricultural Research and Extension
EFA	Enterprise Farmer's Association
EMA	Environmental Management Agency
IWRM	Integrated Water Resources Management
MDC	Movement for Democratic Change
PDS	Priority Date System
RDC	Rural District Council
VIDCO	Village Development Committee
WRM	Water Resources Management
WRMS	Water Resources Management Strategy
WUB	Water User Board
ZANU PF	Zimbabwe African National Union Patriotic Front
ZINWA	Zimbabwe National Water Authority

CHAPTER ONE

INSERTING THE AQUATIC FACTOR: A RECONSTRUCTION OF ZIMBABWE'S WATER HISTORY

'As beneficiaries of the situation the oppressors cannot perceive that if having is a condition of being, it is a necessary condition for all men (Paulo Freire, 1972:35.)'

'Whites claimed not only vast estates much more acreage than they could cultivate, but also the most productive land in the *highest rainfall* regions' (Donald Moore, 2005:71)¹

1.0 Historical Context, Thesis Outline

1.1 Introduction

Throughout Zimbabwe's history water is at the center of political struggles. Moore (2005)'s observation is crucial to the re-construction of Zimbabwean history not in as much in its almost homological status with other assertions made by those who have made the construction of Zimbabwe's history their vocation², or in its invocation of images of whites' rapacious conquest, but in as much as it captures a perception of water availability as an important determinant of the behavior of the colonizers in the manufacture of the colonial terrain. A common thread in this chapter is the reaffirmation of the centrality of water in the creation of colonial and postcolonial spaces focusing on irrigation in resettlement areas. From time to time, it is argued, colonial and postcolonial governments crafted institutions to regulate equity and access to land and water resources, albeit, in ways that subscribed to larger governmentality³ objectives (Moore, 2005).

¹ Italics, my emphasis

² Zimbabwe's history of conquest and alienation had been articulated by a compendium of scholars chief among them Ranger (1985); Moyo (1995); Tshuma (1997).

³ Governmentality was first proposed by Foucault (1979) to refer to the process by which in Middle Ages Europe, sovereign monarchs transformed into administrative regimes of rule. Government became 'The ensemble formed by the

Underlying these objectives, it is posited, was a bureaucratic desire to yield the loyalty of special social groups and restrain the conduct of those in exteriority with these objectives (Foucault, 1979; Rose, 1999).

In spite of the centrality of water in historical struggles, only recently scholarship in natural resources governance has discovered a fissure in the way Zimbabwe's colonial and postcolonial history has been articulated. Cleaver observes that 'much historical and political analysis of Zimbabwe neglects a crucial resource: water (1995: 314).' This historical omission is understandable on account of a handful reasons. Historical and political analysis has tended to have spatial biases: it has been, for the greater part, based on scenarios and places situated in the North and Eastern Zimbabwe; high rainfall regions where rain fed agriculture is sustainable (Cleaver, 1995). This spatial bias coupled with the parochial focus on 'peasantisation' and the 'peasantry' has reinforced a perception of water as a necessity for agricultural production at the expense of broader livelihood concerns. From this optic, peasant struggles are branded struggles for land (without water). However, there is underlying Fontein's (2005) argument, a strand of thinking that is informative: he contends that whilst non-peasant actors (academics, bureaucrats, politicians) perceive landscapes in certain ways that categorize it into land, water, wetlands, vleis etc, the peasants do not necessarily perceive their landscapes in such ways. In this line of thinking, Fontein has discovered that in Masvingo peasants express their historical claims to landscapes in certain rhetoric of languages of land and water that do not necessarily correspond to researchers' classifications. In much the same way, Magandlela (1999) observed that locals in Nyamaropa in the Eastern Highlands invoked historical claims to their land in order to reinforce their involvement in irrigation schemes. An echo of this observation is audible in Moore's (2005) treatment of post-independence peasant struggles in Kaerezi as 'suffering for territory' or '*nyika*', a categorization spanning the semantic landscape taxonomy of land, water, trees, streams, wetlands etc. Thus, in as much as water was central in livelihoods, very often historical struggles were not branded water struggles.

institutions, procedures, analyses, the calculations, and tactics that allow for the practice of this very specific albeit complex form of power...'

But the salience of land as a grievance during the liberation struggles in much of the former colonies could not have been an accident: in retrospect, it is a historical construction where the guerillas exploited the symbolic and discursive nature of land as a unifying factor and a marker of sovereignty in the mobilization of the peasant (Ranger, 1985)⁴. To the nationalists, the land grievance thus presented opportunities for mobilization: "...land was a potent symbol that conveniently summarized the indignities of colonial rule," observed Bratton (1994). Peasant interests such as those on land are therefore, not necessarily a metaphysical emergent: they are manufactured during moments of struggles (Moore, 2005) and as such their texture is a proxy of power relations deployed to define them⁵.

This chapter re-presents Zimbabwe's hydrological history. It is a history of hitherto unknown rationalities, a history of sharing and exclusion, and improvement and impoverishment wherein race was deployed to define relations between men and water. In this re-presentation water is (re) asserted as an important and contested means of production whose control is the basis of racial privileged domination. This perception of water as a coveted and contested economic good⁶, it is shown, has its cradle in the colonial temporal and spatial spaces much as is the case with land. In fact, as early as 1913, almost seventeen years before the promulgation of the historic Land Apportionment Act, the whites had perceived the value of water as a means of production and promulgated the Water Ordinance - a draconian statutory piece that provided the bedrock for water legislation in the colonial and postcolonial state.

In showing the incipient and subsequent treatment of water as a scarce and contested economic good however, this chapter adopts Fontein's thesis that it is 'impossible to understand the history of water in Africa without due consideration to the history and politics of land (2005:285).' In this vision, it will be shown that by superimposing access to

⁴ Raftopoulos (2003), Chaumaba, Scoones, and Wolmer (2003) This exploitation is revoked in the Third Chimurenga

⁵ In this way, given the division of labor where women used water in preparation of food, washing etc it is not amusing why the struggles have not been water struggles as well. Men were more concerned with land.

⁶ This sense implies the commoditization of water as opposed to the treatment of water as common property before colonization.

water⁷ on access to land through riparian and later prior appropriation rights, colonial and postcolonial political technologies⁸ have tied an inextricable entanglement of land and water in which genuine access to either can not be realized without structural changes affecting the other. This observation has its corollary: alienation of local people from their land resources in the name of such post-independence fictitious partnerships of capitalists, state and peasants under the auspices of community based natural resources management (CBNRM) is viewed as further excluding people from land and water resources in a very subtle way. In this vein, this thesis is advertent to voices from the margins: (Dzingirai, 2003; 2004; Wolmer, 2003; Hughes, 2003). They are heeded not only because they are ‘homologous⁹’ but also because they chime with the thinking on which this thesis is founded: alienation is alienation, no matter what discourse or paradigm it is viewed with (in).

This chapter illustrates that alienation and exclusion to water and land resources were part of a larger picture wherein multiple colonial spaces were manufactured as part of a grand colonial and postcolonial project of governmentality (Moore, 2005). It suggests that this governmentality project was expediently sanitized in part through establishment of numerous institutions including the Water Court and water law. In such scenarios where water access is embedded in a complex plexus of ideologies, rationalities and technologies, it is posited, critical issues of equity are often obfuscated¹⁰. This nuance is important to this study especially when it is yoked to Saleth and Dinar’s (2004) argument on the importance of the institutional environment¹¹. Moore (2005) has argued that postcolonial property relations, which are relations of power, are superimposed on sedimentations of previous landscapes of rule and relations and that these are not only transilient but also

⁷ Access provided by legislation corresponds to the classical perception of property that emphasizes the right to benefit from things. This study adopts a broader meaning such as one defined by Ribot and Peluso (2001) as cited by Nemarundwe (2003). Access is viewed broadly as ‘ability to derive benefits from natural resources’

⁸ Moore (2005: 8) conceived political technologies as an assemblage of practices, apparati, and techniques used in governmentality.

⁹ It is also possible to assert that Dzingirai, Hughes, and Wolmer are advocates of the peasants who are being further disenfranchised in the margins.

¹⁰ This thesis is given a different shade when the legislative water reforms are discussed in Chapter II. Submerged more in Bourdieu’s legalism and lacking a methodological compass, architects of the Water Reforms in Zimbabwe lacked a vision of practical equity issues: breaking the land-water entanglement.

¹¹ Saleth and Dinar give that institutional environment is defined by ‘a set of fundamental political, social and legal rules that establish the basis of production, exchange and distribution (2004:25)

consequential. Discourses, narratives, and paradigms: ways of perception; optics and lenses; through often occult motifs and strands, link temporal spaces in history and as such affect property relations in the postcolonial state. For instance, as Moore (2005) observes, market mechanisms and the rule of law, two ‘freedoms’ that constitute much of the backbone of liberalism, underwrote the Lancaster land provisions thereby providing an interview of property rights as organic and sacred. This historical deed was made a possibility and even a practicality notwithstanding the fact that both market mechanisms and the rule of law owe their provenance and sustenance to ‘unfreedoms’: colonial conquest that transformed puissant dispossession into legislative property rights; whence laws and markets consolidated the ‘war booty.’ A motif that forms part of the essence of the thinking assumed in this thesis therefore, is that discourses rooted in the liberal ideology were very much consequential in the way the problem of water access was perceived and dealt with by the postcolonial government. In addition to Saleth and Dinar’s taxological characterization of the institutional environment, the narrative lenses through which, for instance, resources and the relation between men and the resources¹² are seen, are therefore considered to be part of the institutional environment. In this vein the often-latent undercurrents are unmasked, traced and their nuances captured. This presents water access as part of a plexus wherein it is best understood by its embeddedness.

This is not a confused picture, nevertheless. By way of preclusion, this Chapter gives the historical context to this thesis wherein it digs into the colonial and postcolonial historical record and in this way, it traces the salience of the problem of racial inequitable access to water resources. Conflicts with respect to water access are treated as symptomatic. At the same time institutions that emerged to define rules and practices in ways that regulated this access are reviewed and analyzed from a historical retrospective viewpoint. In the final section, the Chapter gives the outline of the Thesis.

¹² Michel Foucault’s concept of Governmentality, as elaborated and illustrated by Moore (2005) posits that the state targets relations rather than things. In this thesis, this observation is nuanced further. Equity is viewed as a product of institutional interaction. An understanding of equity is therefore germane to understanding institutions, particularly in the post-colonial state.

1.2.1 A History of Exclusion, Impoverishment and Improvement

If those of 'the lighter skins' were entirely interested in the 'the control of the darker soils' (Shipton and Goheen, 1994: 363 cited in Hughes, 2003) then after the diamond-prospecting-*eldora do* dream became a confirmed myth, their trek into the interior could not have been entirely motivated by the search for 'darker soils'. Availability of water for daily survival and farming became a major determinant for European settlement. In much the same tempo of argument, Cleaver's (1995) case study of Nkayi district reinforced the observation that access to water rather than land has been the critical factor in its resettlement. The manufacturing of European spaces on the African physical and cultural landscapes entailed some form of colonial land use planning in which the demarcation of European areas was accompanied by the resettlement of unwilling Africans on marginal lands of low rainfall known as reserves. Subsequently, and despite the whites' desire to move Africans from European lands, some Africans remained on 'European land'. In 1901, when Zimbabwe's population in toto was just over 700,000 whites set aside 32 million hectares for European purchase while native African Reserves occupied only 8,4 hectares (Moyana, 1984). This cadastral demarcation was not a deed on no-man's-land: it should be viewed as an act of conquest in which indigenous people were forcibly separated from their means of production - land and water. There is in Rutherford's (2001) illustration of the forcible displacement a qualification of the cadastral demarcation as pre-dial but also aquatic. Long before the advent of occidental capital water has been indispensable not only in providing sources of livelihoods but also in commercial production. He, in this order of thinking observed that:

Before 1890, the year when the area came under direct administration of the British South Africa Company (BSAC) for the British Crown, people living on the Urungwe Plateau had been farming and engaged in various forms of mercantile trade and production (largely copper, ivory and gold) with Swahili, Portuguese, Munhumutapa and Changamire traders (2001:18)

Rutherford (Ibid) further observes that:

The 'native squatters' ...were subsequently removed by the Native Affairs Department's Assistant Native Commissioner in Urungwe and native messengers' in 1942. This operation removed 4,600 black farmers from their land and placed them in Urungwe Reserve in the Southern part of the district (Ibid: 18).

In 1910, a native affairs commission of inquiry had recommended the cleaning up of European areas by removing isolated vestiges of black settlement into larger consolidated reserves (Moore, 2005). By the early 1920s, however, this avaricious obsession appeared to have waned and in its place came a strong felt need to constrain the Europeans (Hughes, 2003) against further enclosure of African Lands. A parlous Native Reserves Act was promulgated partly for this native cause.

Having looked at communal settlements in retrospect, and following the dictates of genetic fallacy¹³ uninquisitively, Hughes (2003:20) concluded his argument apologetically:

The 'communal areas' as they became known after independence, stand as the most humane achievement of an inhuman period.¹⁴

Hughes's argument appears to be centered on the thinking that if European lands were exclusionary, reserves were even in the nethermost measure, inclusionary. While this is certainly part of the story particularly in Manicaland where land is fertile, the larger picture appears to be that reserves still stand today as the most tangible spaces of racial alienation to land and water resources. This perspective holds water on two accounts. First, in that they not only represent exclusion from regions of high mean annual rainfall but also alienation from irrigable land. Secondly, as will be shown in the following sections communal tenure meant that indigenous farmers could not legally secure water rights as individuals and that their securing rights depended entirely on the willingness and

¹³ A strand of philosophy, which holds that an argument should not be evaluated on the basis of its motives, but on the basis of empirical evidence.

¹⁴ On the 17th May 2006 this researcher attended a seminar in which Hughes defended this argument. He elaborated that communal tenure is the most secure form of tenurial arrangement in Zimbabwe.

disposition of a civil servant¹⁵ who would apply for rights on their behalf (Manzungu, 1999).

Hughes' seemingly genetic fallacy could be unmasked even further. It should be inserted that conquest ushered in not only new identities but new landscapes as well. The rightful owners of land and water resources were transformed, through use of a miscellany of racial political technologies to 'squatters'. The options available to an African man in the reserves then, are well presented by Moore (2005). The Land Apportionment Act designated 19, 7¹⁶ million hectares of 'European areas' *ad infinitum* where Africans could only reside under basically two forms labor tenancy: First, they could stay on European areas as long as they paid rentals to the new landlords. Secondly, they were also legally bound to further alienation through labor appropriation.

If one is to examine the seemingly humanistic acts of the colonial regime, one realizes that the creation of the reserves became an exigency for a regime that badly needed income from an array of taxes to the extent that through mere nomenclature, whites transformed indigenous possessions into hitherto unknown taxation semantics, by simply adjoining the word 'tax' to such nouns as the hut, dog, wife etc, to dog tax, hut tax, wife tax and so on (Moore, 2005; Ranger, Ibid). In the same vein, Cleaver (Ibid) noted that in the 1920s and 1930s bureaucratic motives for the provision of water in Nkayi District included inter-alia support for resettlement of African people from designated European lands in central Matebeleland and to ensure that people were able to pay taxes through rearing and sale of cattle. Moore (2005) argues that the Native Commissioners often defended the natives against white settlers in order to inveigle them first, into some form of spatial fixity, a very important pivot for the 'triad-in-motion of land, labor and capital'¹⁷ and then into

¹⁵ In the pre-independence era, it was the prerogative of the native commissioner and it became the responsibility of the Minister in postcolonial Zimbabwe

¹⁶ The Act designated 11,6 million hectares for African Reserves. By 1955 land legislation designated 20 million for 250 000 Europeans in contrast to two million and above Africans who lived on the reserves spanning 16,2 million hectares in marginal agro ecological regions

¹⁷ It is Moore (2005) who presents this formulation based on Marx's. Governmentality, he argues was in some very important way designed to sustain this hallowed trinity

discipline¹⁸ where they were transformed into governable subaltern subjects¹⁹. In retrospect then, the reserves could be said to be isomorphic with Marx's reserve army of workers in a slightly different sense in that the need to pay rent and taxes provided the stick, while the commercial farms and the cities provided the carrot. Thus, by criminalizing custom the colonial regime stole peasant rights to property and manufactured dispossessed indigenous people into proletarians in need of wages to subsist (Moore, 2005). The picture that emerges from this argument is that the creation of reserves where natives were governed by a different set of legislation, the customary, and where access to land was based on one's presence in the tax register (O'Flaherty, 1998) did not only epitomize exclusion from water but also constituted a purely governmentality project.

If there was any modicum of humanity in the creation of reserves, it can only pass as disguised 'false generosity.'²⁰ Contrary to Hughes's observation, O'Flaherty's (Ibid) argument is that the state has ultimate power over land in communal areas. Moore (2005) echoes this argument by asserting that the whites knew very well that individual tenure was more difficult to appropriate than is the case with communal tenure²¹.

The section *ut supra* has shown that outstanding problems of inequitable access to land and water have their provenance in the colonial 'Acts, actors and acts' of conquest and forcible dispossession. What has been salient so far in the discussion is that 'conquest lands' were alienated without any respect to African rights (Moore, 2005). However, this alienation was

¹⁸ As part of governmentality, discipline entails governing the structure of possible fields of action of others who become active agents in their conduct but not self-sovereign authors of their conscious will. This optic is a fascinating insight and it explains why peasant consciousness is not an auto-behavioral response to oppression, but one that needs to be cultivated and mobilized. The works of Moore (Ibid), Ranger (Ibid) and Freire, (Ibid) reinforce this observation

¹⁹ In this colonial governmental objective salaried chiefs and headmen were enrolled as salaried officers. Moore argues that in as much as most of these salaried officers practiced their authority, they were subjects and that the people sympathized with them

²⁰ The researcher has adapted and extended Paulo Freire's argument that the oppressor cannot liberate the oppressed. Any attempts to soften the power of the oppressor should be viewed with mistrust, as they constitute false charity. Freire's argument is anchored on the understanding that the existential reality of the oppressor is subjugation and that the oppressor will perpetuate that order so that he finds the opportunity to express false generosity. In Marxian and Foucauldian thinking these acts constitute subjection that work in freedom's name

²¹ Whereas Moore (Ibid) argues that communal tenure was a colonial fiction whence a failure to discover forms of collective tenure in African territories led colonial administrators to invent it, O'Flaherty (Ibid) asserts that while current communal tenure relations are in many respects artifacts of colonial era they are not simply inventions sponsored by colonial masters. There are vestiges and strands of pre-colonial men-resources relationships. Rutheford (Ibid) shows that creation of K-Block farms was made out of reserves

not without justification: colonialism, its architects argued, represented a colonialist vision of improvement wherein the premodern indigenous Africans were oriented in occidental civilization.

What has also been eminent is the complementarity of political technologies. For instance, arguably, all what racial legislation did was to ‘securitize’ what the sword had yielded. On the contrary, European ownership, as shall be portrayed in the ensuing sections, never got secured. It was not only contumaciously contested but also subverted sub-continuously. For the Europeans, the law became the handiest technology. In Moore’s words ‘the law itself becomes now the instrument of the theft of people’s land, a parliamentary form of robbery (2005: 147)’. In the following sections this ‘parliamentary form of robbery’ as it relates to water access is brought under scrutiny.

1.2.2 A Parliamentary Form of Robbery

As early as 1913 a riparian water right(s)²² system that linked reasonable use of water to ownership of the adjacent or overlying lands had been in operation. Part 7 of the 1913 Water ordinance vested powers in the administrator to authorize in terms of the ordinance, proprietors who wished to ‘divert, impound and take public water’ for primary, secondary and tertiary purposes. An underlying assumption of this legislative technology is that whites were the rightful owners of the land. By institutionalizing rights based on the proximity of one’s land to water sources, this legislation not only illustrates the genesis of a bureaucratic perception of water as predial and therefore cadastral, but also it also conjures images of racialised alienation to water in which this was founded on eviction and exclusion from irrigable land. The historical importance of the Ordinance stands today as the nursery bed in which a medley of hydrological legislative occidental ideas was tested indeed the tap root of the institution of the Water Court²³ is deeply entrenched in the ideas

²² The riparian doctrine originated in the well-watered regions. Landowners bordering on a water body (riparian owners) are entitled to make reasonable use of the water, provided water is returned to the source in an undiminished quality and quantity. Manzungu (2002) in his Background mentions that the water right system was developed in 1927. It could be that he was referring to the right system based on the appropriation doctrine. This however, contradicts some of his earlier observations (1999) where he observes that Mutambara Mission secured its first water right as early as 1916

²³ Chapter III of the ordinance established the Water Court

assumed by this incipient legislation. A legislative provision for funding water development (Section 22) was also enshrined in the Ordinance. This was an important set of ideas in that it ushered in a culture of racial selective funding in commercial water development, a historical act that perpetrated inequitable access to water resources by the indigenous populations. In this vein, Mufema (2005) noted that by 1912, a Land Bank had been established to enable farmers to borrow money on reasonable terms for various activities including dam construction. By 1922, a sum of 5000 pounds sterling had been made available to white farmers for irrigation development (Ibid).

The 1920 amendment to the 1913 ordinance reflects the dominance of the riparian doctrine that emphasized beneficial use of water on the part of riparian proprietors and inserted that where such beneficial use was nonexistent appropriation rights could be granted to non-riparian proprietors. That was an elaboration of the riparian doctrine. Perhaps the historical significance of the amendment is that it captures moments of whites' intercourse with the reality of dry land Africa: scarcity. Section 15 discusses the 'order of priority when water is insufficient for all grantees.' In times of scarcity:

'When the volume of water to which rights of use have been granted should prove insufficient to satisfy all such rights, no holder of any such rights shall be entitled to exercise the same until the rights of prior holders shall have been satisfied'

This represented a shift onto the doctrine of prior appropriation under which the water right is acquired through use over time. Section 15 defined priority as simply priority of lodging applications with the Water Court. Perhaps Stalgren (2000:29) provides a better insight into this colonial priority. To him priority under Section 15 meant "the first to properly file a claim under the settler regime; first served."

Part of the significance of the amendment to the inequitable access observation assumed in this thesis is that racially based exclusion was not only achieved through forcible alienation of indigenous population with respect to land, but also through subtle withholding of information. Manzungu (1999) illustrated that Mutambara Mission in Umvumvumu

Catchment in Manicaland Province of Zimbabwe secured rights as early as 1916 'because of the presence of White Missionaries who were conversant with colonial law governing water (1999: 184)'. In stark contrast, the Mandima Cooperation only secured its right in 1988 after a realization that their lack of a water right was giving them a lower-hand in contesting water access with the Mission and other schemes. The relationship between equity and institutions wherein equity is a product of the interaction of institutions is here brought to the bare. Faulty or incompetent institutions here worked to deprive indigenous actors of water access. This argument is not that far-fetched. Saleth and Dinar (2004) observe that in the real world institutions are at once sources of information and knowledge on one hand, and instruments of interpreting such information on the other.

With the improvement of water legislation through the 1927 Water Act, the 1951 amendment and the Water Act Number 41 of 1976, the role of the institution of the Water Court in granting water rights and resolving disputes related to water was strengthened. What should be pointed out, however, is that the precinct of this Administrative Court only went as far as operating within the confines of the racialized Water law. In this sense, the Water Court perpetuated inequities in water access.

Subsequent legislation assumed the prior appropriation doctrine, by endorsing and adopting Section 15, a set of ideas that has come to be known as the Priority Date System (PDS). The principles defining the PDS were monobasic: access to water was regulated on a 'first-in-time, first-in-right and 'last-out' principle. In this vision the 'first' excluded indigenous people's rights in commercial water use (Manzungu, 1999). As a consequence, in the isolated cases in which an indigenous community was granted a communal right to water its priority date was always later than the right(s) of individual white irrigators in the same catchment²⁴.

²⁴ Given that later rights were granted after consideration of the available volume of water, communal rights were always inferior in volume and the water was often not enough. van Der Zaag (1999) showed that in Nyachowa flow was not enough to reach all furrows.

The utility of the Water Court was mainly signified by processing new applications. The practice was to examine rights already appropriated against the hydrological volumes of water in the catchment in question and then grant the right(s) in specific volumetric terms of water to be abstracted per second. Since a typical indigenous community often had an inferior right in comparison to whites' rights they could only abstract less volumes of water. Van Der Zaag (1999) shows that in Nyachowa communal areas in Manicaland a commercial farmer had the oldest right granted in 1918 to divert 80 liters per second continuously from the river. The same commercial farmer had storage rights as well. In contrast, communal farmers had a priority date of 1933 and the right allowed them to abstract 57 liters per second (lps) continuously from the Nyachowa River. It is worthy to note that the communal area had only one right. Although this was in tandem with collective usufruct of communal tenure, it shows glaring inequitable access to water resources where racial privilege and the fiction of communal tenure were deployed to sanitize inequitable access to water.

By the mid to late 1990s, the PDS had become the venue for criticism from a new crop of policy entrepreneurs²⁵. They disdained the principle on which the PDS was premised: the first-in-time, first-in-right, coupled with the fact that water rights were granted in perpetuity. The PDS precluded the entrance and participation of new irrigators (Zimbabwe Government, Undated). From this optic, Manzungu, (2002a, b) observes that until 1999, a paltry 4,500 white commercial farmers who, compared to the total population of approximately 13 million people then, constituted only 1 per cent were using some 85 per cent of agricultural water in Zimbabwe. This does not say much. Another contentious tenet of the Water Act number 41 of 1976 that has its roots in the 1913 Water Ordinance was specifically the provision that rights to water were the privilege of land title holders. Therein lay the entanglement. To undo this entanglement structurally, was to temper with the Lancaster House Agreement. Within the provisions of the Lancaster House Agreement, access to land for the indigenous was to be facilitated through an ideal market: a set of regulations where the willing seller's and the willing buyer's behavior is solely regulated

²⁵ The 1990s Water reforms were driven by entrepreneurs whose cast included government bureaucrats, academics, technical and funding organizations among others.

by the 'going price.' The elusiveness of this ideal market arrangement meant that very few hitherto disadvantaged blacks got access to irrigable land near water sources. Even then they could only utilize the previous owner's right(s) or appropriate the remainder of the volume that was not committed and could be abstracted. If one goes by Manzungu's (1999) observation that the catchments were 'over-righted' then one confronts the veritable reality that the problem of water access remained outstanding in the postcolonial administration.

In 1985, partly arising out of the realization by the Ministry of Water that they could not monitor users and that some form of indigenous participation was necessary regulations to resuscitate River Boards were promulgated. However, as Latham (2002) observes, water right holding became an exclusionary criterion and these River Boards operated exclusively in Large-Scale Commercial Farming areas.

The PDS has been criticized on account of other scores: it further perpetuated inequalities to water access in that it discouraged investment in water development projects such as dam construction in catchments where substantial amount of water has been committed. This became one of the reasons that gave impetus for the 1990s reforms²⁶. There was a realization that the Government has been the sole financier of water development. The PDS was viewed as a deterrent to private sector financing, particularly as right holders could focus mostly on their priorities without due consideration of other stakeholders. Manzungu (1999) illustrates that because water was not only scarce but also coveted, 'priority selfishness' guided the thinking of prior right holders. Mutambara Mission is a case in point. The Mission wanted its full right even in times of scarcity. In such cases efficiency is usually sacrificed thereby worsening inequitable access. The PDS was not without some advantages. It was orderly and predictable in times of water insufficiency, as every right holder knows his position in the queue. In addition it encouraged investment by those holders with storage rights. However, these advantages reflect an elitist treatment of water allocation and are not relevant in addressing inequitable access to water.

²⁶ Water Reforms in this study refer to the legal and institutional changes ushered in by The Water Act, 1998 and The Zimbabwe National Water Authority Act, 1998 and related Statutory Instruments

1.2.3 Confronting the Legacy of Exclusion and Impoverishment: Post-Independence Experience

In the foregoing sections it has been posited that alienation from water resources was superimposed on forcible dispossession and exclusion from land. A corollary to this observation is that genuine improvement of access to commercial agricultural water could only be achieved, at least, by reversing this historical deed. In this section postcolonial state efforts to resettle indigenous people are examined with the view to evaluate and locate their contribution to the problem of inequitable access to water resources. Resettlement could have been instrumental in linking people to water resources depending on a gamut of factors that are spatial, temporal, social, economic, political and administrative.

From a legal perspective, the Lancaster House Agreement could have predetermined the pace of improving access to water resources through resettlement. It should be posited that the two sanctified twin pillars of liberalism: free market mechanisms and the rule of law guided the architecture of the Lancaster House Constitution (Moore, 2005). What the Lancaster House Agreement (LHA) attempted to do was to transform voracious whites into willing sellers, and the hitherto politically and economically sidelined indigenous people into capable willing buyers 'of their land.' The new government, for reasons that are irrelevant to this discussion signed the agreement and set up resettlement targets that became the staple of its rhetoric in subsequent years. However, Moore (2005) and Bratton (Ibid) have observed that resettlement rhetoric always exceeded its implementation. In 1980, government proposed to settle 18, 000 families on 1, 1 million hectares over three years. In 1982, the target was revisited to 162,000. By 1989, government had allocated land to only 54,000 families. Ten years later slightly above 70,000²⁷ families had been settled on 3,6 million hectares (Moyo, 1995; Moore, 2005; Makadho, 2006;; 2006).

²⁷ These figures are not inclusive of informal resettlement, which could be more. Dzingirai (1996) shows that politicians encouraged this informal type of resettlement for selfish reasons of personal aggrandizement and political expediency

The reasons underpinning the snail's pace in resettlement are polygenetic. Firstly, there is some modicum of consensus on the inefficiency of the 'ideal market' as a redistribution mechanism (Moyo, 1995; Tshuma, 1997; 2006; Makadho, 2006): the 'willing sellers' were only willing to give up farms on marginal lands in low rainfall regions at exorbitant prices paid by the government in foreign currency. This was coupled by the shortage of funding to meet the targets of resettlement. Bratton (1994) observes that under bilateral aid agreements, the government was expected to equal donor funds by paying half of the cost. Even though, it failed to maintain its contribution. This explains, in part why, even in the presence of donor funds meaningful resettlement in high rainfall areas could not be implemented. These marginal lands that were available for resettlement needed much improvement - work that was not matched in organizational ability by the resettlement bureaucracy (Herbst, 1990). For instance, Herbst observed that "the provision of vitally needed water resources for newly resettled farmers has been difficult for the government to coordinate (1990:48)." Thus the government lacked the expertise required for successful resettlement of the peasants (Bratton, 1994).

Apart from the organizational problems inherent in the resettlement bureaucracy, reasons for the slow pace of the land reform also stemmed from the existence of what Herbst called the 'agrarian power' wielded by white commercial farmers. This power emanated particularly from the tremendous way in which white commercial farmers were organized. Since the passage of the 1942 Farmers Licensing Act²⁸, the white commercial farmers have been the 'most powerful and sophisticated political grouping (Herbst, 1990: 39).' With the fast track land reform this prominence has drastically dwindled²⁹. During its stint however, this power was used in such ways that it influenced the 'atmospherics' of the land debate by selectively highlighting the dangerous consequences of radical changes in landownership at the same time emphasizing the indispensability of the white commercial agriculture in Zimbabwe (Ibid). This situation was the least expected by the peasants who had fought alongside the freedom fighters and some of whom favored the land restitution

²⁸ The Act made it mandatory to buy a farming license from the newly formed CFU thereby increasing not only its coffers but also its organizational ability through the use of a professional secretariat

²⁹ The observation is also implied Moore's Preface

discourse.³⁰ By the late 1990s, demonstrations that assumed the character of sit-ins had become the major problem irking the white commercial farmers in Shamva³¹. Moyo (1995) observes that the government was in a 'catch-twenty-two' situation where it played a balancing act. On the one hand, it embraced the liberal ideologies and acknowledged the indispensability of white commercial agriculture in sustaining the economy and on the other; it remained indebted in fulfilling its promises to satisfy growing land hunger among the peasantry (Moyo, 1995). This being the situation the absence of significant organized political pressure from the disparate communal peasants gave a leeway for the government to rationally take up marginal farms available on the market in order to mollify hot spots and sustain its legitimacy. Marongwe's (2003) observation is illustrative. Between 1980 and 1999 Zimbabwe has not succeeded in acquiring land in the in the natural regions I to III. Only 24, 27 per cent was acquired in region I and 12, 63 per cent, 15, 41 per cent, 7, 42 per cent and 3, 97 per cent was acquired in regions II, III, IV and V respectively. Underneath the figures is a common thread of racial inequity to water resources.

Notwithstanding these glaring inequities to land and water access, from 1980 to the late 1990s, explicit and implicit government policy coddled the white commercial farmers. Much in the same way the colonial government had racially supported the White Commercial Farmers; post-independence government provided them with preferential access to economic incentives ranging from foreign currency for their mechanization proposals, the bulk of loans provided by the Agricultural Finance Corporation, lower fuel duties to a series of export incentives (Moyo, 1995; Moore, 2005). Makadho et al (Ibid) and Manzungu (1999), converge on the observation that the large-scale commercial farming sector has benefited immensely from state assistance and subsidies both in the colonial and postcolonial times. On the contrary, they observe that small-scale irrigation had to do with only erratic and inconsequential support from the state and the private sector funding initiatives.

³⁰ Chaumba, Scoones and Wolmer (2003) gives that the Land Restitution Discourse emphasizes peasants desire to return 'home' to particular pieces of land and have a symbolic importance to those making the claims. This is in contrast to the Nationalist discourse where land has material, symbolic, and discursive significance as a marker of sovereignty

³¹ Minutes of the Enterprise Farmers Association held on 1st July 1998, at the Enterprise Country Club

Far from positively nurturing and developing an indigenous agrarian capitalist class to improve access to water and land resources – a policy direction that was as well sensible particularly in the 1990s liberal environment - the government itself perpetuated the inequalities both by default and by design. This traditional preferential treatment could not have been an olive branch extended in the spirit of reconciliation after a prolonged struggle: white farmers played a key role not only in ensuring food security but also in export and foreign currency earnings. In 1985, white commercial farmers produced almost all of the country's tobacco, tea, coffee and sugar and these constituted about 34 per cent of all the total exports (Herbst, 1990). By preferentially treating White Commercial farmers, the government capacitated them to access land and water resources more effectively. Through, for instance, such public funds targeted to increase wheat production when almost all wheat growers were white; the government 'unwittingly' perpetuated inequitable access to water. A case in point is the government winter wheat facility that envisaged increases in wheat production through winter irrigation. In this vision, government sought to fund infield infrastructure improvements. This facility was more relevant to white commercial farmers who, until then, had developed source to field irrigation infrastructure, made possible by sustained state support. In doing so the postcolonial government discriminated against the indigenous farmers who had no source to field infrastructure in the first place, thus turning the dream of racial equitable water access into a bureaucratic nightmare³².

³² This observation was also made by Mufema, a PhD student at a seminar at CASS, UZ on the 18th of May 2006

Table 1.1**Smallholder irrigation schemes in communal and resettlement areas as of 1997**

Province	No- of operational Schemes	Area of operational Schemes (ha)	Total Number of Beneficiaries
Matebeleland South	21	1,580	34,477
Masvingo	39	2,257	2,763
Manicaland	28	3,327	3,912
Midlands	33	970	2,885
Mashonaland East	35	440	861
Mashonaland Central	8	641	253
Mashonaland West	14	378	426
Small-Scale Purchase Areas	-	2,000	-
TOTAL	178	11,593	45,577

Adapted from Makadho, Matondi and Munyuki-Hungwe (2006)

Post-independence agricultural policies also focused on establishing resettlement schemes in communal and resettlement areas (Makadho, Matondi and Munyuki-Hungwe, 2006) in addition to those that were developed during colonial rule. The scholars further observe that in 1997, there were 178 irrigation schemes with a cumulative area of 11,593 hectares and 45,557 beneficiaries (Table 1.1). Going by the figures of estimates of operational irrigation schemes and beneficiaries one would buy in the observation that notable indigenous small-scale farmers have water access. Nevertheless, the figures do not say much about access to water resources. Access, the ability and freedom (Nemarundwe, 2003) to derive benefits from natural resource endowments, transcends being in the resettlement officer's register. Tenure in resettlement areas has never been secure (Moore, 2005; Makadho, 2006). Conditional permits remained the legal tenurial assurance tying the

settlers to a bundle of spatialized rights to a residential plot, demarcated *ad modum* colonial 'lines' (Dzingirai, 2003b), an arable field and a grazing commons (Dzingirai, 2003b).

This physical set up enabled state servants to access with much ease those individuals whose discipline was in exteriority to postcolonial government objectives. For instance, to Dzingirai (2003b: 36) Mushandike Resettlement Scheme represented a nationalist project in which 'farmers existed for the state.' The settlers were disciplined 'to industriously produce commodities for the country and to justify the war of liberation...' He further argued that the Resettlement Officer as well as Agritex Officers often gave weight to these nationalist objectives. Mushandike passes as one of the projects of governmentality in which rights are embedded in specific spatial sites that require the peasants to subject themselves to specific forms of discipline. It is a project in which power relations enroll subjects in the vocation of their own rule, 'guiding conduct' and cultivating allegiance (Rose, 1999; Moore, 2005). It is a project in which welfare and development objectives are nethermost, existing only in an often-occult status of interiority to high order political objectives³³.

It goes without saying that in this nexus of ideologies, economic, political and social reproduction rationalities, access to water resources thus played second fiddle. It was sacrificed particularly on two accounts. Firstly, just as too much of the market leads to instability, so too, does an excess of the state (Saleth and Dinar, 2004: 34). While Dzingirai portrays a picture of constant 'fear of the unknown' with respect to bureaucratic withdrawal of permits, he documented that some settlers chose to migrate to Gokwe and other places in the margins to escape state high-handed intervention. In much the same way the pervasive role played by the state as planner of crops to be grown, supplier of inputs and the sole market can only be isomorphic with an inefficient socialist command economy. Secondly, resettlement schemes represent theatres where peasants were turned into governable subjects. In Mushandike, Dzingirai (2003b) has shown that the arrangement in which the state played the role of manager, making decisions on behalf of the settlers, providing

³³ Part of the elaboration came up during a discussion with Dr. Dzingirai on the 15th July 2006, Harare. He argued that welfare and development objectives are often pursued to sanitize the political goals

inputs and standing as the sole market, then deducting 'multiple costs' 'irked peasants' who clandestinely sold produce to alternative markets. With regards to water access, rights were applied by a bureaucrat on behalf of the scheme, an arrangement that was in tandem with collective ownership in the resettlement areas (Manzungu, 1999). From this optic, the capability and ability of the peasants to derive full benefits from water was curtailed by the state.

Kinsey (2000) cited in David Moore (2001) is somewhat more optimistic in his treatment of the resettlement: he gives that in 1995-96 resettled farmers earned 6.8 times from sales more than the communal areas. In addition, resettled farmers sold 78 per cent produce, 25 per cent higher than the communal farmers marketed. Nevertheless, in comparison with the large-scale commercial farms the resettlement sector remains relatively economically insignificant (Moore, 2005).

1.2.4 Post-1990 Resettlement

The Lancaster House Constitutional constrains literally relented in 1990. Whilst it is often argued in government rhetoric and scholarly articles that the Lancaster House Constitution incapacitated the government in the resettling of indigenous people, such an argument fails to recognize that before 2000 85 per cent of the resettlement had been commissioned during the first decade (Moore, 2005). As early as 1987, the Zimbabwe Government adopted the Structural Adjustment Program, with the advice of the International Financial Institutions (IFIs) whose recipe sought to curtail the redistributive role of the state in the economy by placing emphasis on liberalization of the market, reduced public funding, and more importantly and implicitly, through the strengthening of property rights and the rule of law. Moyo, (1995) observes that it is this SAP that reduced land acquisition and resettlement. It is worth highlighting that from 1980 to 1989 with British financial assistance of 37 million pounds, 54 000 households have been settled (Moore, 2005; Makadho, 2006; David Moore, 2001). From 1990 to 1997 less than 10 000 families were resettled (Muir-Leresche, 2006). This stagnating pace in settler emplacement has been

blamed on the structural adjustment program that strengthened the twin pillars of the liberal ideology: the market and the sanctity of property rights (Muir-Leresche, 2006).

In this institutional environment, the historical beneficiaries of colonial conquest, under the aegis of the Commercial Farmers Union favored the economic development narrative in their articulations of their position on the land (Moyo, 1995). Moyo (1995) further argues that the large-scale commercial farmers were part of an anti-land reform alliance that comprised white banking business and industrial interests that serviced commercial agriculture and strongly disdained being alienated from international capital through 'unreasonable methods of land acquisition.' The dominant thinking of this group was that international capital; particularly occidental investment would dwindle, as it lacked faith in the production capacity of the peasant.

The anti-land reform alliance was well connected internationally. Even after the newly elected 1997 British Labor Government's *il gran rifiuto* in which it had recused itself from any obligations akin to funding land resettlement in Zimbabwe, it couldn't resist being sucked into the Inception Phase Framework Plan of Resettlement, wherein it, much in the same manner as the Conservative Government had treated the land question 16 years earlier, committed itself, at least in principle to fund resettlement (Moyo, 2006; Makadho, 2006). Blair's government couldn't have cut ties with the Zimbabwean land question for, as the events unfolded, it became clear that it had interests to protect. This was not helped by the promulgation in 1992 of the Land Acquisition Act (LAA). Although conceived within the market-oriented liberal ideology in that it rejected historical land claims by the erstwhile-deprived indigenous people (Moyo, 1995), the LAA had 'pernicious' intentions to white interests: 5 million hectares comprising underutilized land were identified, designated and waited compulsory acquisition for the 'public good' with provision for 'fair' compensation (Moyo, 1995; 2006; Makadho, 2006). In this vision, 1 471 commercial farms were to be acquired for resettlement (Moyo, 2006, David Moore, 2001). Government optimism on the Inception Phase Framework coupled with traditional respect for the commercial farming sector postponed the climax of the complex emotive land settlement. Moyo (2006) observed that even within the precinct of the 1992 LAA, white farmers still

successfully legally contested the designation of 804 farms out of the designated 1,471 farms.

1.2.5 The Cadastral Political Climax

Improved physical access at the beginning of the new Millennium never came by design. It was more of a consequence of the acme of attrition and fusion of historical incidents, discourses and new rationalities. Physical access to water for the indigenous actors remained marginal until a series of events that were given renewed momentum by an inconsequential 1998 donor conference on land resettlement. The ill-fated donor conference was overshadowed by growing economic stagnation, deindustrialization coupled with incessantly rising unemployment and inflation, declining democracy (David Moore, 2005), and a ‘thickening’ of the civil society led by labor and constitutional movements. Already stretched to the highest possible fiscal expenditure by sending troops to the Democratic Republic of Congo, the government gave in to pressure in which it paid compensation to 55,000 war veterans (Moore, 2005). As Moore (Ibid: x) observes, “Political, military, and fiscal complexities intertwined to produce what many conceive as an epochal crisis.” Raftpolous (2003) has discovered at least one ‘transparent’ feature in this crisis: authoritarian nationalism. Faced with a ‘growing loss of legitimacy’ and the possibility of ‘electoral defeat’ in subsequent parliamentary and presidential elections and local government elections, the strong ruling ZANU PF party has reconstructed the outstanding land question through a ‘selective rendition of this problem’ whereupon it was articulated as a truismatic crisis (Ibid: 217,218), warranting an exigency and whose settlement constituted a panacea to the variable crises. Thus, in much the same way the same way liberal ideologies have constructed the fiction of the ‘market panacea’ the ruling party manufactured a ‘land panacea’³⁴. Where the marginal improvement of indigenous physical access to water was subtly regulated through the market as the sole redistributive mechanism of land and land based resources, the postcolonial government supplanted this liberal mechanism heralding improved physical access to water.

³⁴ Through the slogan ‘The Land is the Economy and the Economy is Land’ popularized by the then Minister of Information, Professor Jonathan Moyo this propaganda became the ZANU PF’s Millennium rhetoric

But ZANU PF could not have entirely fabricated its master rhetoric. It surely was not without some basis. No scholar is associated with this observation than Sam Moyo who has maintained the argument that since independence, peasant land hunger had been expressed through isolated micro practices that took the form of ‘squatting’ on commercial as well as state lands (Moyo, 1995). He elaborates that in this way peasants played a very important role in identifying land and the government then followed with a program of resettlement. While Moyo (1995; 2006) observed occasional but sub-continuous indigenous sit-ins on white farms and interpreted them as signs of unfettered land hunger, Chaumba et al contradict this assertion, instead, inserting that these micro practices only grew in intensity and number in 2000. The incidence of indigenous sit-ins on white farms observed by Moyo could not have been without some patterns. Perhaps based on observations of some patterns of these sit-ins, Marongwe (Ibid) argues that ‘squatting’ also grew in intensity during election periods, signifying a construction of interests around the pending agrarian question. There is another observation that although it is apparent in his analysis of agrarian politics, Moyo fails to intimate it with his phenomenon of land hunger: there was, counter to these peasant expressions of land hunger a bureaucratic postponement of a vassal agrarian settlement in spite of peasant expressed land hunger. These political games, though recondite, are interpreted by Stalgren (2000: 31):

Politics in Zimbabwe is the result of strategic maneuvering where, at best; resources are traded for the loyalty of important social strata, but frequently used to avoid social strife and revolution.

In much the same stream of thought, David Moore (Ibid: 262) insists that,

“the imperative for speedy resettlement did not come from an aroused peasantry, but the politics of a regime facing economic crisis...”

Whatever is the dominant perception, what comes out is that situated micro-practices of the subjects are at once stratagems and spoils that when harvested by the strong government work to sustain an unpopular regime (Bailey, 1966; Moore, 2005) and that from this

interweave of rationalities, discourses and historical events, physical access to water for the indigenous was yielded.

ZANU PF's defeat in the 2000 constitutional referendum dealt a deathblow to market-mediated land redistribution mechanisms and signified new redistribution rationalities. This historic defeat ignited a process, officially launched on the 15th July 2000, of militant and populist farm invasions that was code-named – 'fast track' land reform (Moyo, 2006). Ostensibly to address outstanding racial inequities in land and water access, the strong central government in Zimbabwe enrolled peasants into multiple militant identities including war veterans, *de facto* war veterans, youth militia and the millenarian '*povo*' – into battalions reminiscent of pre-independence struggles (Moore, 2005; Chaumba, et al). Leading these battalions from behind, the strong, unpopular central government dispossessed a vibrant commercial farming clique comprising those of the lighter skins who had hitherto enjoyed priority and perpetual rights to use irrigation water on darker soils. Much as the government redressed racial aquatic inequities, it ushered in a medley of new actors on an altered political terrain. Those of the darker skins now irrigate on darker soils. It is shown in subsequent chapters that institutions in water resources management owe their configuration to the ways through which the colonial and postcolonial governments addressed exigent equity and access problems.

In both substance and essence however, fast track was not really a departure from the 1992 LAA except in the pace of acquiring land and chaotic settling of people on land with rudimentary or no services. By April 2003, government claimed to have settled 300,000 families on 5,000 former white commercial farms (Moore, 2005)

Water equity and access, it is shown above, is embedded and intertwined in a plexus of other issues including land. Despite this embeddeness and interweave, the rationality of sectoral planning in the postcolonial government dictated that land and water resources be planned and implemented at different temporal points. Below, interfaces between these reforms are brought to the bare.

1.2.6 Water and Land Reforms: Interfaces and Contradictions

It warrants reiteration that colonial rationalities anchored on the riparian doctrine tied an entanglement of land and water wherein improved access to either may not be realized without structurally affecting the other. Whilst the land and water reforms share similar objectives in as much as they address historical racial inequities and in their attempt to broaden the participation of indigenous small to medium scale resource users, they have not been harmonized (Derman and Gonese, 2003). Synergies between the two have not been exploited. Land redistribution has largely ignored the very issues pertinent to the success of agrarian reform: water development and allocation (Makadho, et al). In the introduction to this chapter, a point was made that genuine racial equitable access to water resources required dismantling the long established white rights to land. Despite some destructive elements inherent in the Fast-track land reform, it busted the intricate colonial land and water rights entanglement. The contribution of the fast track land reform to equitable access to water resources is quite notable: at least 20,4 per cent (Table 1.2) of irrigated land had been appropriated to the A1, A2, and communal and resettlement farmers who had no access to commercial irrigation (Makadho, et al).

However, reading from Table 1, 2 below about 66, 190 hectares of irrigable land has been lost partly due to recurrent droughts and vandalism of irrigation equipment. This observation has an interesting impact on access in that vandalism – though expected of struggles – precludes other prospective water users thereby reducing access. This view tends to present the fast track as having been antipathetic to the success of the water reforms. This observation does hold water when one considers that the water reform strategy was premised on the vitality of the commercial farming sector with the attendant private sector financing (Derman and Gonese, Ibid). Just as black political domination was built on white agrarian economic domination, the user pays principles so apparent in the reforms were anchored on a vibrant white commercial agriculture and gradual induction of

indigenous players. As such cost recovery forms part of the backbone of the water reform. In an interesting twist, ZANU PF re-election rhetoric centered on the rendition of the historical land dictated that the millenarian redistribution – in much the same rationality that underlies land appropriation to settlers in the previous century (Moore, 2005; Ranger, 1985) – be invoked. Unlike water, and in a typical policy dissonance, millenarian land access rights are given for free. Whether millenarian institutions would facilitate access to water in ways akin to the pre-fast track institutions is an issue for inquiry, one that this thesis would attempt to illuminate. The role of, and extent to which post-fast-track institutions would contribute to an agrarian transformation wherein new multiple water users become vibrant commercial irrigators’ thus remains obfuscated.

Table 1, 2

Distribution of irrigated area before and after the 2000 Fast Track

Category	Before 2000		After 2000	
	Area (ha)	% of total	Area (ha)	% of total
A1	N/a	N/a	7,620	6,3
A2	N/a	N/a	12,450	10,3
Communal & resettlement	10,000	6	11,860	9,8
Indigenous large scale commercial (or Informal)	20,000	11	9,250	7,7
Traditional large-scale Commercial (white-owned)	139,500	73	8,140	6,8
ARDA	13,500	8	7,620	6,3
Estates	-	-	63,470	52,3
Settler	3.600	2	-	-
TOTAL	186,600	100	120,410	100

Key: N/A = Not applicable

Adapted from Makadho, Matondi and Munyuki-Hungwe (2006).

1.3 Thesis Outline

The first Chapter has discussed the historical context on which subsequent sections will be founded. Global water management discourses that surfaced in the 1990s are traced in Chapter Two. It is shown that whilst these global narratives on water were consequential with respect to local constructions of the water problem, policy direction was also informed by local realities. Chapter Three discusses the epistemological, methodological and ethical issues that were relevant to the study. It comes out that due to the nature of the phenomena under investigation – institutions; the study was attached to the phenomenological methodological standpoint in which a case study approach was adopted. Chapter Four presents and discusses the findings. It is divided into two sections. The first section presents institutions that were influencing water use behaviors and management practices together with their roles. The second section discusses the nature of associational relationships that existed between these institutions, incentives and sanctions between these institutions as well as their performance. The last Chapter begins by summarizing the study findings then proceeds to advance some theoretical insights that emerged from the study. Lastly, Chapter Five gives recommendations on the way forward.

Chapter Two

2.0 Background and Research Problem

2.1 Introduction

By way of preclusion, this Chapter begins by picking up some central motifs advanced in the Chapter One. In the previous chapter it was shown that equity in water access is embedded in colonial and postcolonial governmentality architecture. In order to regulate access to water in ways that realizes these governmentality objectives, both colonial and postcolonial governments crafted a medley of institutions that regulated access to water. Through a myriad of institutions whose cast included legislative instruments, the water court and river boards, it was shown; colonial and postcolonial governments sanitized racial inequitable access to water. Thus governments affected equity and access issues in ways that facilitated certain political objectives. This Chapter traces changes in bureaucratic rationality in water resources management and gives an overview of Zimbabwe's 1990's water reforms. It goes on to problematize these reforms. The first and the second sections locate the push factors for the reforms in the court of the global epistemic communities, their discourses and resources on the one hand. On the other hand, it shows that eco-catastrophic shocks, socio-political imperatives on the part of the government to redress racial aquatic inequities and local policy movers; refracted international discourses of water resources management by intimating them with local realities thereby constructing a hybrid of local policies.

In the third section, the objectives and justification of the study are outlined before key conceptual contours of the study are specified. In the penultimate section, theoretical approaches to the study of institutions that were relevant to the study are discussed. In addition, the possible contribution of this study to institutional theoretical issues is envisaged. The ultimate section clarifies key concepts assumed in the study.

The section below takes a closer look at the 1990s global discourses on water resources management.

2.2 1990s Global Trends in Water Management

Whereas Integrated Water Resources Management has now been accepted by most governments the world over its provenance has been cause for controversy and contest. Perhaps IWRM - the water resources management paradigm presently in vogue with professionals, politicians and policy makers the world over – has been around for more than six decades (Biswas, 2004). At a United Nations Water Conference held in Mar del Plata in Argentina in March 1977, motifs of integrated water resources management were notably salient (Koudstaal, Rijsberman and Savenije, 1992; Biswas, Ibid). Various scholars including Manzungu (2002) and the authors of the IWRM Toolbox are probably mistaken in suggesting that IWRM is isogenous with the Dublin spirit. Possibly they are misguided to attribute the genesis of the inspiration of IWRM to the Dublin Conference of 1992. What is probably not contested in their observations is that the cradle of the principles underlying IWRM can be located within the Rio-Dublin principles on water resources management. In both substance and essence, the principles recognized that (i) fresh water was a finite resource essential for sustaining all forms life and development and as such (ii) its management and development should not only reflect its economic value but should also (iii) involve a broad spectrum of participants including water users policy-makers and planners. Lastly, the centrality of the role of women in the provision, management and safeguarding of water was acknowledged.

There are indications that the seeds of IWRM had germinated long before the Dublin Conference. In fact, Koudstaal et al (Ibid) in their paper prepared for and published as a keynote address by the International Conference on Water and Environment held from the 26th to 31st of January 1992 in Dublin, had not only treated in much detail this water paradigm, but have also acknowledged the pre-intimation of IWRM themes especially at the 1977 United Nations Water Conference.

Whatever is the true ‘creation story’ about this water management paradigm that has come before us, what is certainly incontrovertible is that at a number of successive global conferences, workshops and seminars convened from the 1990’s onwards, a water management paradigm was (re)discovered, nurtured, popularized and dispersed to developed and developing countries alike (Biswas, Ibid; Manzungu, 2002; Koudstaal et al, 1992; Global Water Partnership 2003). The point that merits emphasis is that this ‘new’ water discourse or water management paradigm is now guiding the optics of planners and policy makers in the water sector the world over and it has now been adopted within the SADC region in general and Zimbabwe in particular. But what are the unique differentiating features of the substance and essence of this new water management paradigm? If the origins of IWRM are contested, debates about its defining features are sometimes even more polemical and verbal³⁵.

³⁵ For example, a Dutch Professor expressed hard misgivings about Biswas’s polemics during an informal talk with this researcher at a Water Symposium held in Malawi from 1-3 November 2006

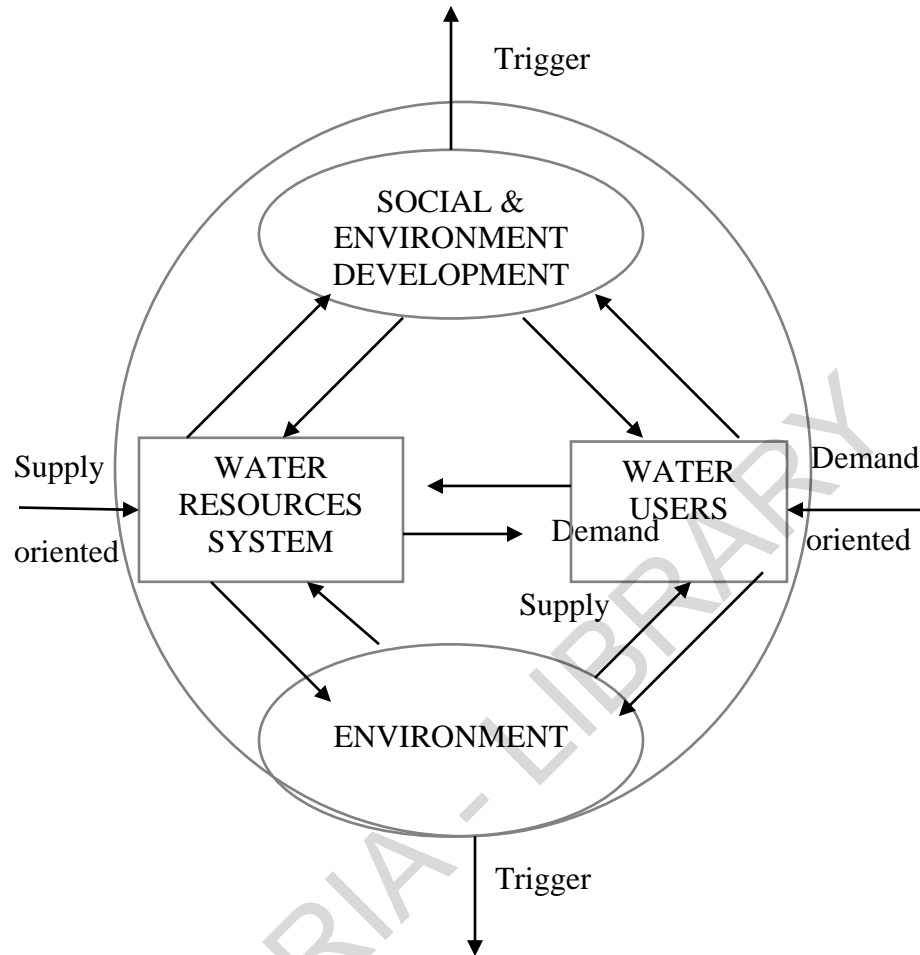


Figure 2.1 Schematic Representation of IWRM

Adopted from Koudstaal, Rijsberman and Savenije (1992:283)

According to Koudstaal et al, Water Resources Management is “an input-output system, which includes water and related goods to meet final and derived demand from society (p 283).” The system comprise four elements: (i) the total water and its physical, chemical and biological components; (ii) the natural subsystem including rivers, lakes, vegetation and soils;(iii) the man-made infrastructure such as canals, diversion weirs, dams and water treatment plans; and (iv) the administrative subsystem including the existing legislation, regulation and the institutional framework. According to these authors, WRM thus comprise the totality of tasks required to produce water related goods and services. Planning within this management system is three-pronged: it involves (i) Supply oriented physical measures that include water resources infrastructure; (ii) Demand oriented

implementation incentives including taxes, permits and zoning; (iii) Institutional arrangements including specifying responsibilities and modes of interaction between the institutions.

Unlike traditional approaches to water management that were more supply oriented, responding to ever increasing demands from growing populations, IWRM joins supply oriented measures with demand management and institutional arrangements. According to Koudstaal et al, within IWRM, water resources management becomes part of a region's socio-economic development process in which it is more of a stimulant rather than a mere input. In this order, water would presume an economic price tag, one which reflects both its scarcity, intrinsic and use values.

Although Koudstaal et al suggested that WRM requires cross-sectoral efforts such as those of water resources and land use planning; the emphasis for integration of land water and related resources was subsequently made by the Global Water Partnership (2000; 2003). The GWP defined IWRM as “a process that promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.”

In spite of the boomerang effect it has made, IWRM has been venue for substantial criticism especially from third world sectors. One of the (in) famous critics of this new water management paradigm, Biswas (2004), loathed the amorphous way in which its definition was framed. He deplored the infuscate nature in which ‘lofty phrases’ have been joined together in this definition without an *a priori* reflection of their practical resonance. He questions for example, the definitive demarcation and specification of ‘land and related resources’; ‘economic and social welfare’; and ‘vital ecosystems’. His conclusion was that IWRM as a concept can not be understood, implemented and measured.

Third World scholarship, particularly those that may not be socialist oriented but have looked at IWRM through socialist optics disdained the water pricing component. Because

one of IWRM's cardinal principles, that of treating water as an economic good with its scarce use and intrinsic values factored in has its ideological home in neo-liberalism (Koudstaal et al, Ibid; Swatuk, 2002; Manzungu, Ibid), they argued that the 'user pay principle' fails to guarantee water as a human right. In much the same stream of thought Petrella (2001: 55) contends that:

To have access to water, however, *is not a matter of choice*. Everyone needs it. The very fact that it can not be replaced with anything else makes water a *basic asset* that can not be subordinated to a single sectoral principle of regulation, legitimation and valorization; it comes under the principles of the functioning of society as a whole. This is precisely what is called a *socialist asset*, a *common good* basic to any human community.

While such polemic arguments are based on the rationality that those who can pay; those already better off will continue to access this basic good, when those that are poor get marginalized even more – which, to some extent is true – they fail to recognize that the benefits of water as a basic good need to be harnessed and developed, otherwise, water becomes a burden. This harnessing and development goes with a cost that most developing countries fail to subsidize.

With regards to neo-liberal capitalist countries the 'user pay principle' has been the best selling point of the paradigm: they have not only endorsed IWRM, but have also institutionalized it. It now forms part of the water management policies and programs as well as bilateral monetary agreements (Koudstaal et al) of various European capitalist countries. Various international and bilateral donor organizations have now institutionalized IWRM. This is not saying much. The World Bank has realized that in light of IWRM, its role will "require modification. More important than lending for projects or for structural adjustments may be the development of innovative approaches to address international and domestic institutional problems, (World Bank, 1990, cited by Koudstaal et al)". In this vein, in 1993 the Bank published a water resources management sector strategy- a planning and management tool that detailed how countries could plan and implement integrated water resources management (World Bank, 1993); Pitman, 2002). The period that followed the publication of the water resources management sector strategy

saw the Bank embarking on a virtual witnessing (Keeley and Scoones, 2003) exercise in which it organized a succession of seminars and workshops internationally, designed to interest and ultimately enroll scholars, academics and policy makers representing most governments in its vision of water management. It is noteworthy that at one such regional seminar held in Victoria Falls in 1993, members of Zimbabwe's Department of Water Development were in attendance (Derman and Gonese, 2003, World Bank, 1993b). The Bank promised more than just a vision for water management: it had resources to make this vision a reality. From 1993 onwards the Bank financed a number of water reform projects in different countries around the globe. The most acclaimed of these projects were implemented in Mali (Aw and Diemer, 2005) and Brazil (Dinar, 2000). Whereas these Bank-driven water reforms were implemented in diverse localities, in essence they were underwritten by similar principles of a water market and participation of interest groups. Given the perceived and actual importance of the World Bank in financing development projects and influencing economic policies, particularly in developing countries, the extent to which IWRM has been popularized cannot be overemphasized.

The Dutch have also been in the forefront of the international efforts to refine IWRM. In March 2000, in The Hague, a compendium of water professionals, academics and policy-makers commissioned an ambitious global water agenda (Manzungu, 2002) that has come to be known as the World Water Vision. The entire utopia around it aside, the World Water Vision, in essence, reiterated the need to involve all stakeholders in integrated water management and economic efficiency in water management by encouraging a move towards full-cost recovery for all human water use (Manzungu, 2002). The Netherlands hosts the UNESCO-IHE Institute – the biggest world water institute that has churned out Masters and PhD fellowships around various issues of IWRM (www.unesco-ihe.org)

IWRM has become the staple of the Global Water Partnership that produces and distributes an Integrated Water Resources Management Toolbox - free of charge – to interested water professionals and policy makers. It should be noted that the GWP with its Headquarters in Switzerland has reproduced its offices in all the subcontinents including Southern Africa. The GWP is the major donor of WaterNet – a network of water professionals, academics,

engineers in water management from the SADC region and beyond - established to build capacities of member countries in integrated water management. WaterNet is facilitating training in the IWRM Masters program at the University of Zimbabwe, in Zimbabwe and the University of Dar-es -alam in Tanzania. In addition, a number of PhD fellowships are underway. A Water Research Fund for Southern Africa (WARFSA), funded in part by the Global Water Partnership and the Dutch government, from which this research benefited, had been established to engender research in integrated water resources management within the SADC region and beyond.

It bears emphasis then and therefore, that it is this momentum created by these international initiatives that has influenced the nature of water reform in the SADC region, Zimbabwe included. Manzungu (2002) observed that the adoption of the SADC Protocol on Shared Water Courses and the crafting of the Regional Program (1998 to 2004) were efforts focused at operationalizing IWRM in the region.

2.3 Overview of Zimbabwe's Water Reforms

In Zimbabwe, the precepts of IWRM came, as was characteristic of the 1990s pre-fast-track land reform period; carried in the tide of occidental aid in water management; and have found expression in the Water Resources Management Strategy (WRMS) – a blueprint and inception project that established the institutional framework for integrated Catchment management, funded especially at its inception – by the European governments of the Dutch, the United Kingdom, Norway and Germany (Manzungu, 2002; Latham, 2002; Swatuk, 2002; Zimbabwe Government, Undated).

The influence of the European governments on the nature and essence of the water reforms, given the prominence of occidental aid, cannot be overplayed. 'The one who pays the piper dictates the tune,' says the old adage. Notwithstanding this observation, international discourse, it has been argued, is always redefined, reinterpreted and refracted by local realities (Keeley and Scoones, 2003). There ensued, following the injection of western aid into the water sector a process of mutual construction of this reality in which a local

epistemic community comprising academics, policy-makers and planners participated in research and recommended government on the right policy path (Zimbabwe Government, Undated). It bears emphasis therefore, that the global story lines on water, discussed *ut supra*, were not so divorced from local constructions. From the 1990s Zimbabwe's liberal ideological environment that obtained then, two groups of water policy entrepreneurs emerged in the water sector. Firstly, there emerged an integrated management movement initially conceived by the international donor agencies, popularized and recommended by the academics and finally adopted by the government (Makadho, Matondi and Munyuki-Hungwe, 2006). Contemporaneously, there came into this policy space, the demand-driven, decentralized development group that focused on community water development (Ibid).

Their construction of local aquatic discourses, it could be asserted, at first assumed the form of an eco-catastrophe complexion: the severity of the 1991-1992 drought with its 1994-1995 sequel tolled bells for equitable and 'wiser' use of water. It was during these spells of scarcity that the evils of the Priority Date System were understood. Inequitable access to water became the focus of considerable criticism from the members of this local epistemic community. Their recommendations were, however not new: in the early 1990s, a government sponsored Commission of Inquiry into Appropriate Agricultural Land Tenure Systems – popularly known as the Rukuni Commission – had presaged the very policy space that the water entrepreneurs exploited and in 1994, had emphasized the need to address inequitable access to land and water resources and underscored the need to revise water laws (Derman and Gonese, 2003). The other object of criticism was the apparent exclusivity of the then institutional framework. Participation in water management was limited to right holders (Manzungu, 2002). Latham (Ibid) observed that the River Boards established in 1985 to engender participation ended up excluding non-right holders. Thus whilst it could be true that international discourse could have had a major bearing on the essence and framework of the reforms, to some extent, they are, a product of local intercourse with reality.

Of the two groups of local policy movers, the demand-driven failed to make the boomerang effect and appeared to have faded into oblivion. The integrated water resources

management group attracted more policy and scholarly attention: it was successfully operationalized within the framework of the Water Resources Management Strategy (WRMS).

In more terse terms, eight stated objectives underpinned the water reform process in Zimbabwe:

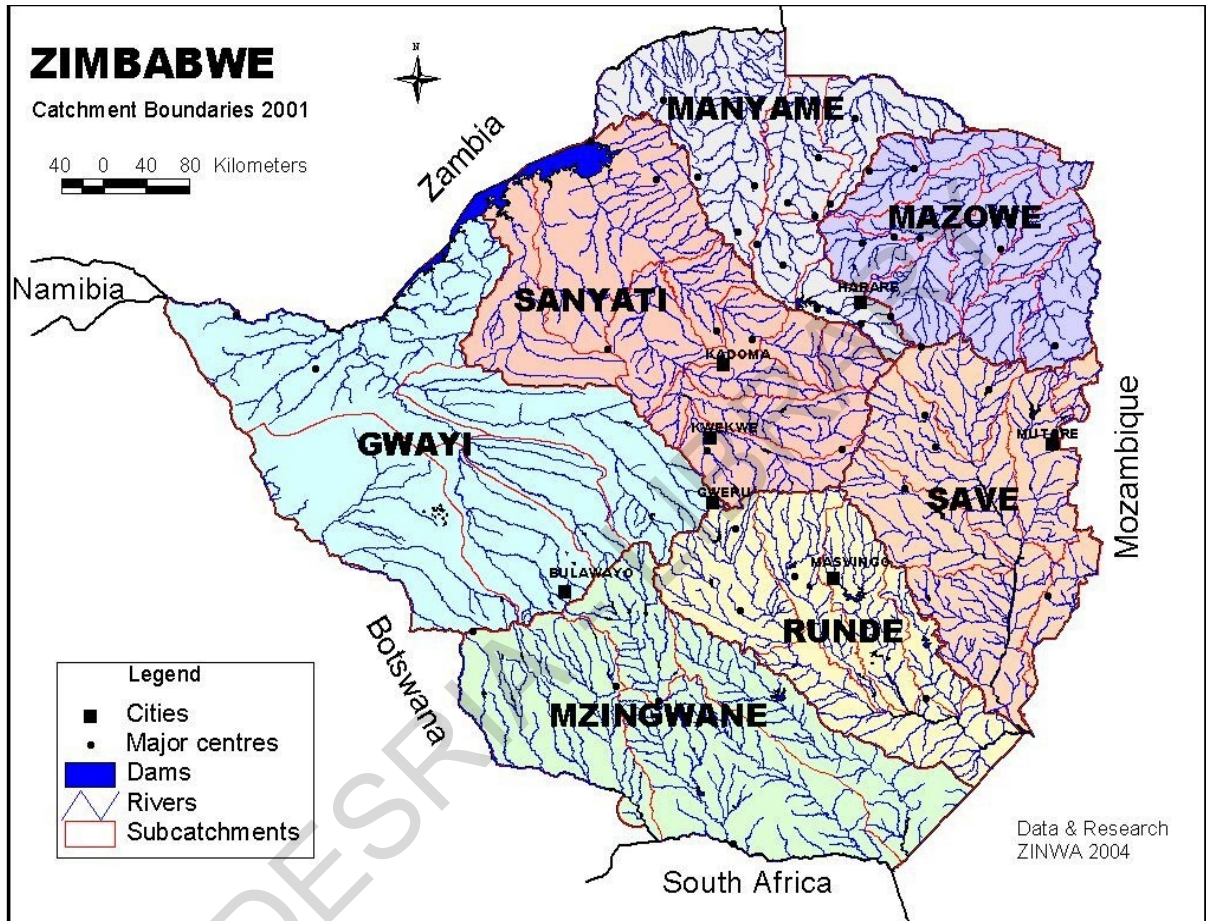
1. To put in place mechanisms that promotes equal access to water for all Zimbabweans.
2. To create an environment that promotes stakeholder participation and involvement in the decision making process for the water sector.
3. To create an enabling environment for an integrated approach to land and water resources planning and management on a Catchment basis.
4. To put in place measures that enhance the availability of water resources of suitable quality and quantity where and when it is needed.
5. To put in place strategies that will promote the production of accurate water data on water use and demand for both surface and ground water.
6. To provide guidelines for private sector financing in the water sector as well as to improve opportunities for self financing and amelioration of public sector financing.
7. To develop water pricing policies and mechanisms which recognize water as an economic good.
8. To promote integration of sector and regional water policies.

The ideas of the WRMS were pilot-tested in the Mazowe and Mupfure Catchments sponsored by the Germany Agency for Technical Cooperation (GTZ) and the Dutch government, respectively (Latham, 2002).

Legally, Zimbabwe's water reforms are underpinned by two major pieces of legislation, namely The Water Act (Chapter 20: 24) and the ZINWA Act (Chapter 20: 25). The main focus of the Water Act is to operationalize integrated management and planning of water and related resources based on management units defined by hydrological basins known as

catchments. Zimbabwe was accordingly divided into seven catchments namely, Mazowe, Mupfure, Sanyati, Save, Runde, Mzingwane and Gwai.

Map 2, 1 Zimbabwe Catchment Boundaries



Map 1 Zimbabwe Hydrological Map

The Catchments were further divided into sub-catchments on the basis of hydrological characteristics of smaller rivers and tributaries. The catchments and the Sub-catchments are run by decentralized structures known catchment councils and sub-catchment councils respectively. It should be noted that these decentralized structures were designed to involve the participation of various stakeholders in water management as they were meant to operate as water parliaments. According to the ZINWA Act the Zimbabwe National Water Authority plays the role of a technical advisor to the decentralized structures.

A number of principles lie at the heart of the reforms. Firstly, the reforms were driven, in part, by the need to ensure equitable access to water resources. To this end, the Priority Date System was scrapped off. In its place came the water permit system that is not only temporary, but is also subject to revision depending on the available water and demand (Derman and Gonese, 2003).

Secondly, as discussed earlier, the decentralized Catchments and Sub-Catchments councils were designed to afford space for the participation of local communities and interested stakeholders in the decision-making process of water management (Chikozho, 2001).

The Third principle relates to the desire to treat water as an economic good with an economic value derived from its use and intrinsic values as well as opportunity cost of competing water uses. With the exception of primary purposes – defined by its domestic uses such as cooking, washing and watering domestic animals etc, all water use should be permitted. Notwithstanding this strong economic and entrepreneurial desire, there is within the Water Act a suggestion of nationalization of water coupled with a tacit treatment of water as a social good. The state owns all the surface and underground water³⁶. The Minister is required within the premises of the Act to make provision of affordable water to the poor.

Lastly, environmental sustainability is upheld. The use and management of water should be carried out in a way that protects the integrity of the environment. A polluter pays principle together with the permissible pollution principle are enshrined in the new water legislation. In 2006 the ZINWA department that operationalized these principles by issuing pollution discharge permits and fines merged with the Environmental Management Agency.

Although the principles underlying the water reform appear noble, and the institutional arrangements robust there is still need to understand in more depth the modes of interaction among the institutions in land and water resources management with relation to equity,

³⁶ According to Manzungu prior to the reforms underground water was not regulated.

access and sustainability. By scrutinizing these modes of interactions, this study problematizes the recent water reforms. This study therefore seeks an understanding of the processes around the implementation of the reforms from an institutional optic: with regards to institutional associational relationships, how are reforms being implemented? In this vein, the aim and objective of the study were as follows:

2.4 Aim of the Study

The broad aim of the study was to gain an understanding of institutions involved in water management and associational relationships of these institutions as well as the impact of such linkages on institutional capacity and performance.

2.5 Objectives of the Study

The study was underpinned by the following objectives.

- 2.5.1 To seek an understanding of institutions involved at different levels of water management.
- 2.5.2 To assess the role and performance of institutions involved at various stages of water management.
- 2.5.3 To analyze the incentives and sanctions for water user participation at different levels of water management.
- 2.5.4 To come up with policy relevant recommendations for crafting and reconfiguring water management institutions.

2.6 Justification

Fast track resettlement has ushered in a new physical and political terrain (Chaumba, Scoones and Wolmer, 2003). This yet to be understood institutional setting is superimposed on previous institutions such as Village Development and irrigation Committees and traditional structures. The institutional landscape in the new resettlement areas remains relatively murky. By problematizing institutions affecting access to water, this study illuminates and contributes an in-depth

understanding of the utility of institutions and institutional interaction in water resources management. While such an approach highlights conceptual issues relating to integrated water resources management, it at once contributes to ways in which such integration could be implemented in practice.

Whereas a holistic understanding of institutions in water resources management is significant, studies of resource management institutions have tended to be biased towards analyzing formal at the expense of informal institutions that regulate and mediate individual actors' ability to access water resources. This study gives an integral treatment of subjective factors of institutions such as ideology, belief systems, worldviews as well as their objective counterparts such as laws, constitutions, price mechanisms etc (Saleth and Dinar, 2004). In addition, a treatment of the subjective components of institutions shifts attention from the influence wielded by formal institutions to the role played by individual actors as well as their relations in water management. Although there have been isolated post 1998 studies problematizing water institutions, these studies have almost exclusively focused on the legal at the expense of the extralegal institutional environment. More significantly, these studies only went as far as producing a theoretical institutional taxonomy without analyzing the functional linkages among, and associational relationships of, these institutions. By bringing linkages among institutions under scholarly scrutiny, this study increases relevant theoretical and policy inputs for sustainable water resources management.

Further, early studies have tended to assume a parochial treatment of equity issues. For the greater part equity has been conceptualized in terms of rights to access. For, instance the permit system in Zimbabwe had not been tied to access to irrigable land. Although dismantling the PDS and replacing it with evanescent permit removed legislative obstacles to equity, it has been entirely viewed as constituting equitable access. This study adopts Ribot and Peluso's conceptualization of access (2001). Equity is viewed not only from a physicalist perspective, but also as the freedom and ability to derive benefits from natural resource endowments. By

making an attempt to examine the efficiency of institutions through this broad conceptual equity lens, this study builds on the previous theoretical knowledge of the performance of institutions in sustainable water management, that were more sectoral in their treatment of institutions.

2.7.0 Institutions: A Conceptualization

In order to provide sound bedrock for subsequent sections, conceptual issues on institutions merit discussion at this juncture. In defining institutions, Saleth and Dinar (2004:23) observe that they are a “pervasive phenomenon with diverse origins” and as such they succumb to “diverse definitions and interpretations, reflecting different disciplinary perspectives and theoretical traditions.” In view of Saleth and Dinar’s (2004) synthesis, institutions are at once sources of information and knowledge on one hand, and instruments of interpreting such information on the other. From one perspective, institutions can be a substitute for accurate information needed by actors and thus providing a decision-making framework. They thus serve to reduce behavioral uncertainty by providing predictive information.

A corollary to this perspective is that institutions can be viewed as providing a cognitive framework with which to interpret raw data, habits and routine, converting them into socially and economically useful information (Saleth and Dinar, 2004). In making decisions, actors are constrained by society’s rules of the game (Ostrom, 1990). In this vein, rules of the game define and delineate the set of choices available to an individual or groups of actors thereby providing an incentive and sanction structure for human exchanges (North, 1990; Ostrom, Ibid). Thus, institutions provide a structure to everyday life (North, Ibid). What is discernible from the foregoing is that institutions do not only constrict choices and behavior but also open up opportunities by providing information as well as valuable interpretations. Institutions therefore, provide a domain of possibilities and practicalities on one hand as well as impossibilities and impracticalities on the other. Commons (1968: 6) cited in Saleth and Dinar (2004) noted that institutions are the “working rules of going concerns” and that these rules indicate what “individuals must or

must not do (compulsion of duty), what they may do without interference from other individuals (permission of liberty), what they can do with the aid of collective power (capacity or right), and what they can not expect the collective power to do on their behalf (incapacity or exposure). From a natural management resources optic, institutions thus affect and determine relations of men and men as well as relations of men and resources. An elaboration of institutions as constituting relations between men can be found in Ostrom's (Ibid) articulation of institutions as a form of social capital. From this standpoint designing institutions is viewed as involving creating new forms of relationships. Coleman (1988: 100) cited in Ostrom (Ibid) gives that social capital "is created by changes in the relations between persons that facilitate action"

By constraining choices and behavior of actors at the same time configuring relations between actors, institutions shape worldviews and identity of the actors themselves (Saleth and Dinar, 2004). It is worth highlighting that this identity if it becomes collective or shared constitutes social capital.

Because Saleth and Dinar's (Ibid) categorization of institutions into institutional environment and institutional arrangement, and their treatment of defining features of institutions were germane to an understanding of institutions in water management as well as their linkages, a word about them is relevant at this point. Institutional environment is viewed as being characterized by "a set of fundamental political, social, and legal rules that establish the basis for production, exchange and distribution (p 25). Institutional arrangements provide a structure within which actors individually or collectively cooperate or compete. For instance, the neo-liberal phase in Zimbabwe marked by a sacred respect of colonially bred property rights and an obsession with the market as a redistribution mechanism was an institutional environment wherein the rationalities of exchange, redistribution and production were embedded. Certain political and economic activities become irrelevant within a specific institutional environment. The demarcating line between the institutional environment and institutional environment, however, is fluid and often there are imbrications.

Institutions can also be viewed as either subjective or objective. As subjective, institutions take the form of “subjective mental constructs” or “artifacts” that think and act through the medium of human beings (Saleth and Dinar, 2004: 26) North (Ibid) argues that the “mental construct” or the “subjective model” is a key factor in shaping the behavior of actors. From this perspective, institutions are branded ideas or ideologies that cannot be touched, felt, and seen (North, 1990). As objective structures institutions are formalized in tangible architecture such as laws, constitutions, codes of conducts *etcetera*. The importance and indispensability of studying subjective forms of institutions lie in the realization that these seemingly robust objective constructions can only be of influence to the extent that they pervade the thinking of the actors (Saleth and Dinar, 2004). This insight was useful in appreciating that environmental precepts from the macro level are refracted and reinterpreted at the local levels. Instead of reporting environmental offenses to Environmental Management Agency official, the environmental guard was made and obliged report to the Village Development Committee, first and foremost. The VIDCO, it was learnt, solve environmental offenses in the most appropriate local ways. At the same time, however, subjective institutions are vulnerable and malleable to objective influence. This presents a ‘catch twenty-two’ scenario. Nevertheless, Saleth and Dinar (2004) suggest that institutions are subjective in terms of their derivation and functions, but objective in terms of their manifestations and impact.

A strand of thinking that was germane to the study of institutional linkages in a more temporal sense is the notion of path dependency. North (Ibid) observes that this notion conceptualizes institutions as less vicissitudinous. Thus in studying institutions, the historical path does matter. This understanding challenges conventional thinking that often treats radical changes in laws and bureaucracies as precluding previous institutions. For example, the change in Zimbabwe’s Water legislation from Water Act Number 41 of 1976 to Water Act 1998 and Zimbabwe National Water Authority, and the formal institutions established thereof, does not preclude, neither do these new formal institutions occlude previous institutions. In this vein, informal institutions, particularly traditional institutions are treated as more stable and durable; always asserting their influence by giving meaning; perception and interpretation to actors – way after formal institutions have changed. A

relevant question that should be paused is whether informal institutions can work to oppose the path of change charted by formal institutions. Literature on institutions in natural resources management tends to suggest that both formal and informal institutions are malleable entities that also wield to the influence of social actors (Nhira, 1994).

Discussing the utility of the actor-oriented approach to the study of institutions, Nemarundwe (2003) argues that when actors find themselves in situations where they cannot pursue their interests within the precinct of existing institutions they may devise strategies to twist the rules to suit their interests. This becomes a continuous struggle where they can shift their 'subversive' actions to other echelons, for instance, from the overt to the covert. This then constitute Scott's (1985) 'every day forms of resistance.' However, North (Ibid) insists that reversing the course of the path of institutional change is often extremely difficult and costly.

A prominent feature of institutions that has been the subject of discussion relates to their hierarchic and nestedness. Institutions are usually mutually nested and structurally embedded within each other (North, Ibid). Institutions are hierarchically structured in ways that often exhibit linkages. The work of Ostrom (1990) has shown that rules are often nested and sequentially linked within a hierarchical system, in which collective-choice rules that are derived from constitutional-choice rules and the operational choice rules are in turn, derived from collective-choice rules. Another relevant feature entails spatial nestedness. Literature on institutions portrays a character of institutions as embedded within and complementary to each other (North, Ibid). In this vein Saleth and Dinar (2004) observes that formal institutions are embedded within informal institutions and that the former cannot be effective without the later.

2.8.0 Theoretical Approaches to the Study of Institutions

There are as many theoretical approaches to the study of institutions as there are definitions. This section discusses the approaches that were relevant to this study.

2.8.1 Functionalist Approach

Nemarundwe (2003) observes that there is a moral economy approach to the study of institutions. According to this approach, man is viewed as *homo sociologicus* and his behavior is largely controlled by social norms. Emphasis is placed on the power wielded by traditions, value systems and moral codes that sustain collective action. From this viewpoint, the institution is not necessarily defined as a formal structure but rather is better understood as a collection of norms, rules, understandings and routines. Institutions, it is argued, possess an almost inherent legitimacy that commits actors to behave in ways that may even violate their self-interests (Ibid). What is discernible from this treatment of institutions is the emphasis placed on the 'logic of appropriateness' more than the 'logic of consequentiality' that might also shape behavior (Olson, 1965). Individual actors, it is argued will think much more about the appropriateness of their behavior than about what consequences will be for themselves. As Nemarundwe (Ibid) argues, these approaches tend to romanticize the utility of traditional institutions in natural resources management. It is also questionable whether institutions that are classified as traditional are traditional in the real sense. Ribbot (1999) has shown that these institutions are a product of the colonial encounter, more so under the British indirect rule.

2.8.2 Rational Choice Theory

The rational choice theory (RCT) is com-provincial to the old neoclassical approach to the study of institutions. It places prominence on the individual who is viewed as utility

maximizing. The basic argument proffered by the rational choice approach is that utility maximization is and will remain the primary motivation of individuals. However, individuals may realize that their goals can be achieved through institutional action and find that their behavior has been shaped by these institutions. What underlies this observation is the continued salience of a calculating individual who chooses to be, to some extent constrained by his membership in an institution.

Rational choice theory views institutions as aggregations of rules that shape individual behavior, but individuals act rationally to those incentives and constraints presented by those rules. The Achilles' heel of the rational choice theory has been its over reliance on the egoistic individual. In water management in irrigation schemes, perhaps the relevance of the RCT was found in supplying an analytical framework for explaining opportunistic and self-aggrandizing behavior among Catchment Councilors.

2.8.3 New Institutionalism

The roots of new institutionalism are entrenched in the neoclassical approach, in particular, rational choice theories. Whereas neoclassical approaches placed much emphasis on the individual actor as a rational calculating and maximizing individual, under new institutionalism, outcomes are not only explained by individual preferences and optimization of behavior, but also on the basis of institutional preferences (Ostrom, 1990). Where the neo-classical theories emphasized calculated rationality, new institutionalism assumes a scenario of bounded rationality. In this vision, economic decisions do not only feed on the price and transaction inputs. Thus the political implications of economic decisions as well as economic implications of political decisions are considered. Institutions play a very important role in constraining behavior of actors and delineating the precinct of possibility, practicality and acceptability of actions.

New institutional theorists believe that 'credible commitments' joined with mutual monitoring and the establishment of certain rules-in-use can transform actors from 'selfish' maximizing individuals into actors who engage in collective action for the realization of the

shared goal (Ostrom, 1990). According to Ostrom (1990), credible commitments are constructed when actors are presented with institutional arrangements that conform to a number of design principles. These design principles include clearly defined boundaries, congruency between allocation and access rules and local conditions, users being able to modify rules, monitoring by individuals that are accountable, and non-compliance being confronted with graduated sanctions.

The popularity of new institutional approach and the design principles has only been matched by growing criticism. Firstly, the treatment of community as a bounded homogenous entity has been the venue for considerable criticism. There is diversity in communities, between communities as well as the socio-ecological contexts. This differentiation is a result of gender, socio-economic characteristics of the members such as wealth, level of education, status etc (Nemarundwe, 2003). Another bone of contention that critics of the design principles chew relates to the neglect of power differentiation. From a Foucauldian perspective power is a strategy and as such is exercised rather than possessed (Foucault, 1979 cited in Nemarundwe, 2003). Those who can exercise power can effect establishment of rules as well as their interpretation in ways that benefit them. This is particularly the case when one considers that meanings are contested and they reflect the interests of those who can deploy power. Critics of New Institutionalism do not end there. They also loath the salience of exclusive analysis of internal dynamics at the expense of exogenous factors and contextual factors notwithstanding the fact that these omitted analytics shape collective action at various levels. Further, the design principles falter when applied to a resource system like water that has different ways of abstraction and multiple uses. It is also noteworthy that emphasis on the design principle leaves little space for human agency. New Institutional Theory however provided lenses for understanding how some collective arrangements curtailed individual efforts that could have resulted in social differentiation.

2.8.4 Actor-Oriented Approach

According to Nemarundwe (Ibid) the actor-oriented approach locate the individual as being at the center of natural resources management discourse. There is recognition of the

heterogeneity of actors. Prominence is also accorded to different meanings that actors attach to natural resources. Institutions are thus defined as concepts, meanings and values that regulate actors and they are regarded as being “embedded in historically and culturally specific ways (Nemarundwe, 2003: 35). According to Long (1992:21), the actor-oriented approach regards actors as “active participants who process information and strategize in their dealings with some local actors and interveners as well.” A shift from the rational choice theory is that the actors consider their counterparts as well as external social engineers. From this viewpoint, social agents act and interact within an institutional framework that they in turn, shape. Relations among actors do matter in this approach: actors engage in struggles as well as synergistic interactions that reproduce and transform the institutional terrain. In this way a situation of “bounded agency and bounded constructionism” (Admassie, 1995:13; cited in Nemarundwe, 2003) is manufactured. Changes are therefore a product of human agents, social and material contexts in which they act and interact as well as the agency-structure dynamics. This approach accords too much freedom upon the individual actor. Whilst it is very beneficial in emphasizing the eminence of the actor, it trivializes the role of institutional structures in constraining choices and relations among various actors and defining the domain of possibilities and practicalities.

The utility of the actor-oriented approach was that it allowed an understanding of water users as enterprising and strategizing individuals who organize to confront the limit-acts (Freire, 1972) provided by the socio-economic-political environments. In this way, it was appreciated: people form institutions that assist them confront their limit-acts. And because institutions are malleable, they exert certain pressure in order to adjust certain institutions to suit their environments. This was illustrated by the way a Village Development Committee was keen on influencing the role of the conservation guard by creating more lines of accountability for him.

2.9.0 Theoretical Positionality of the Study

Whereas some studies select a single theoretical approach when studying institutions, this study eschewed ‘theoretical chauvinism’. In this way, it disdained parochial treatment of phenomena. A ‘polytheoretic’ approach was adopted. This study was informed by the flowering of literature on ‘theoretical pluralism’ (Saleth and Dinar, 2004), an approach that incorporates strands of various institutional theories without necessarily being married to any of the approaches. In this light, different theories were of utility in analyzing different institutions and their components as well the linkages between them.

Whilst the study was privileged in that as discussed in the foregoing section, it utilized these various theories in a pragmatic way, it also intended to advance institutional theoretical insights that form the basis of a framework for understanding the interaction of institutions in water resources management. In this vein, the concepts of institutional pile-up and institutional associational relationship pertaining to institutions within a single domain or space were informed and elaborated by the research and they form part of the bedrock for the theoretical reflection advanced in this study.

2.9.1 Definition of Key Concepts

Below are key concepts that were used in this Thesis. Their operational definitions are given.

2.9.1.1 Physical access:

Being emplaced on irrigable land where irrigation infrastructure could or has been installed.

2.9.1.2 Access

Having the freedom, ability and capability, to derive benefits from natural resource endowments.

2.9.1.3 Institution:

A set of rules that seeks to prescribe or constrain; or proscribe as (un)desirable certain modes of individual behavior; or

An organizational structure defined by specific mandate(s) that has either explicit and/ or implicit rules as the basis for practicable and acceptable modes of behaviors of its individual members.

2.9.1.4 Institutional Associational Relationship-

Institutional Associational Relationship between two or more Institutions refers to:

Specifications of mandate based role(s) and expectations, evaluation criteria; lines and directions of accountability between these institutions.

2.9.1.5 Institutional Pile-up:

A process and condition whereby an institution is crafted and established to assume functions in a definitive spatial and politico-socio-economic space wherein existing institutions have already assumed in part or as a whole.

2.9.1.6 Institutional Harmony:

A condition that obtains when two or more institutions within a definitive spatial and socio-political space have their mandate based role(s), expectations, evaluative criteria, lines and direction of accountability, specified and maintained. The concept is used interchangeably with Institutional Fit.

2.9.1.7 Institutional Dissonance:

A condition that obtains when two or more institutions within a definitive spatial and politico-socio-economic space have their role(s), expectations, evaluative criteria, lines and direction of accountability, not specified. It is used in an antithetical relationship with Institutional Harmony.

2.9.1.8 Sustainability:

Sustainability in this Thesis is used to refer to:

Economic Efficiency- Exchanges, uses or transactions of resources that are economically optimal.

Social Equity- Access to resources that is fair.

Ecological Efficiency- Uses of the environment that maintains its integrity and vitality.

2.1.1.9 Institutional Accountability:

Institutional accountability between two or more institutions refers to a revocable liability or responsibility of an institution to its specifications of mandate based role(s) and expectations.

2.2.0.0 Water Resources Management:

WRM comprise the totality of tasks required to produce water related goods and services. It involves (i) Supply oriented physical measures that include water resources infrastructure; (ii) Demand oriented implementation incentives including taxes, permits and zoning; (iii) Institutional arrangements including specifying responsibilities and modes of interaction between the institutions.

Chapter Three

3.0 Research Methodology and Methods

“We find fruitful the idea that social life must be explained not by the perception of those who participate in it, but by the deep causes which lie outside consciousness (Karl Marx, cited by Pierre Bourdieu, 1990: 125).”

“The objects of thoughts constructed by the social scientist so as to grasp social reality must be based on the objects of thoughts constructed by the common sense thinking of people who live their daily lives in their world (Alfred Schultz, Collected Thesiss Vol 1, The Problem of Social Reality, Not Dated: 59, cited by Pierre Bourdieu, 1990: 125).”

‘Every expression can be examined from the point of view not only of its meaning but also its effects (Alasuutari 1998:134)’

3.1 Introduction

The first chapter presented a historical background of inequitable access to water resources. It illustrated that inequitable access to water is deeply rooted in colonial racial exclusion from land and water resources. Efforts to sanitize inequitable access to water resources by the pre and postcolonial governments culminated in the successive creation of a medley of institutions comprising among others, legislation and the water court. In the second chapter, global perspectives and approaches to water problems were discussed and an outline of the Zimbabwe 1990s water reforms was given. More water management institutions were created to supplement River Boards established in 1985 to engender participation of water users. The new institutions include the Zimbabwe National Water Authority, Catchment Councils and Sub-Catchment Councils.

This Chapter picks up the thread from Chapter Two. It discusses the epistemological, methodological and ethical issues appropriate to the study. Scientific manufacture is presented as a composite of various scientific decisions and choices made from an array of

alternatives. The section *ut infra* discusses an important and crucial issue often obfuscated by the polemic character of epistemologico-methodological debates: the identity of the researcher.

3.2 A note on the Identity of the Researcher

For this scientist, the research was an “odyssey” guided by an heuristic search for reality (ontology) in which the scientist was enrolled in a vocation wherein he assumed multiple identities - wittingly and sometimes accidentally - depending on the task and the situation at hand. It is an odyssey in which the researcher made allies and critics alike and learnt, sometimes through trial and error, how to solve scientific problems that were of epistemological, ethical and methodological texture. It was also a journey wherein there largely existed no rule of thumb to solve problems.

Scholar after scholar continues to establish that research is a risky enterprise in which the researcher needs to perform preparatory tasks to condition the research environment. This is because the research field is characterized by gatekeepers or ‘micro-autocrats’, those actors who for various reasons feel threatened by the research process and subsequently devote their efforts to forestall and/ or disturb the path of the research. This demands that the researcher prepares the field in order that his enterprise is successful. In Zimbabwe, most researchers have had to do this reconditioning and smoothening exercise given the risks attached to the research business (Murombedzi, 1994; Dzingirai, 1998; Moore, 2005).

For this research the study area was home to gatekeepers, some based in the capital. To get information from them, particularly the bureaucrats the researcher had to play a game of deference and politics (Barth, 1969; Bailey, 1966). For instance, the researcher had to play obeisance as shown in the following encounter. When the researcher went to Mazowe Catchment offices at Coal House in Harare, he only learnt that the person best placed to assist him was the Catchment Coordinator, a very nervous bureaucrat. Having learnt the importance of totemic-based deference during reconnaissance in Chinamora Communal

lands, the researcher realized that he could make use of trivial everyday register often taken for granted. The following is part of what transpired:

Researcher: How are you elder brother?

Coordinator: I am doing fine. How are you young brother?

Researcher: I am fine. Thanks. Brother I have come for your assistance.

Coordinator: What can I do for you young brother?

Thus in this encounter the researcher dramatized his inadequacy through exaggerating the importance of the coordinator. As expected, the coordinator was left with no option except to believe he was the handiest solution to the research logistics. Because of this deference, the researcher was able to win the support of this bureaucrat and to recruit him as an ally in the research enterprise. Similarly, deference and some bit of persistence to the Catchment Manager, the overall boss of the Catchment, also opened up big and otherwise inaccessible opportunities to attend at short notice relevant meetings including the Nyagui Sub-catchment Council Annual General meeting. Finally, deference to Russell, the enthusiastic Sub-Catchment technician, who is a key figure in the eyes of the community, resulted in him introducing the researcher to various resettlement milieus. Later, the researcher made use of Russell's relationship with water users to access participants by merely mentioning that he had refereed him. This may appear superfluous but where such politics was played, it transformed gatekeepers who had constant touch with people into resources and advocates for the research agenda, serving the researcher unnecessary hustles.

The research field was, perhaps owing to the political polarization that gripped Zimbabwe then, a tense atmosphere. Outsiders were suspected of reversing the gains of land resettlement and the agrarian reform. In this connection, the researcher had to package and repackages himself in ways that earned him support and in sometimes respect and esteem, among informants. Thus throughout the research journey, the researcher wittingly assumed roles more often couched in cultural identities. To older men and women, the researcher became a son and sometimes a son-in-law. To war veterans and their powerful allies, the researcher assumed a revolutionary identity and was both comrade and son of the soil.

Whilst this elaboration may appear pedantic, it was because of these delicate identities that brought the researcher closer to the participants by reducing the social and professional lacunae that other researchers have suffered. It should be emphasized, however, that because these cultural identities are relations of both symbolic and manifest power they actually modify the relationship between the researcher and the researched. They make it possible from both a logistic and security point of view, for the researcher to get on with his work. Even more important they make it possible for the research to be interesting to 'subjects' to the extent of supporting practically: the researcher was given transport and other services necessary to accomplish fieldwork in a remote Catchment.

3.3 Epistemological Positioning of the Research

Choices and decisions in scientific research, it has become the norm, should be made within some epistemological and methodological framework. However, scientific manufacture is still premised on two albeit, feuding epistemological positions.

There is, on the one hand, a positivist-rationalist-hypothetico-deductive-enlightenment episteme (Winch, 1985) devoted to explain the world within a framework of laws of cause and effect (*Eklaren*). The linchpin of the positivist approach is the strong guiding principle that treats reality as consisting of objectively defined facts that exist outside men's consciousness. Within this episteme the divine role of the scientist is the experimental control of subsets of variables in the service of either verification or falsification of an *a priori* theory (Popper, 1992). Quantification – the *sine qua non* of this episteme – allows standardization, measurement and number processes wherein concepts embedded in theoretical frameworks are rendered not only observable but also manipulable, testable, replicable, predictable and generalizable (Henwood and Pidgeon, 1997).

On the other hand is the historicizing, phenomenologist episteme that searches for deeper meanings embedded in naturalistic localities and situationalities, - that not only strives to understand the world (*verstehen*), but also to interpret behavior (Henwood and Pidgeon, 1997). This study was conceived and carried out within the framework of the latter

epistemology partly for pragmatic and ethical reasons. The corresponding qualitative methodology was chosen for its devotion to constructivist qualities: emphasis on description rather than explanation, the re-representation of reality through the eyes of the social agents and a commitment to viewing meaning (*sinn*) of experience and behavior not only in its spatial and symbolic milieu, but also in its full complexity.

As indicated in earlier chapters, institutions exist in a gamut wherein they range from the more objective formal formats such as legislation, constitutions, policies and formal organizations to the informal ones such as traditional institutions and norms and the more subjective such as mental constructs, pre-notions, ideologies, worldviews, perceptions and belief systems. The realization that some institutions exist in more subjective forms challenged positivist thinking that treats scientific reality as facts that exist above and outside men. To confine the research agenda to objective structures such as legislation, policy and bureaucratic programmatic documents and observable behavior would not have captured the complexity of the miscellany of institutions that were found to affect water use and management decisions. Whilst it is true that the researcher identified some institutions at the beginning of the research, more and more institutions were discovered along the research journey. The involvement of ruling party political institutions in water management was not preconceived at the beginning of the research enterprise but only emerged during observation.

Some pre-conceived classificatory categories were challenged by emerging evidence so that it became necessary to recreate them. An interesting example is the traditional leadership in the studied villages, which was found to be different from the communal areas in that they existed together with some constitutional constraints. The forms of organization, in much the same way, were observed to be different from communal villages because of the existence of more constitutional basis for behavioral expectations. In this way they exhibited a transformation towards Tonnies' *Gessellschaft* (Tonnies, 1955). This evidence was captured partly because of the flexibility allowed by the phenomenological epistemological approach that made it possible to scan for 'knots' of complexities that at the end yielded deeper understanding. It became axiomatic, therefore that this study

shunned the positivist wisdom of creating and foreclosing analytical categories prior to fieldwork.

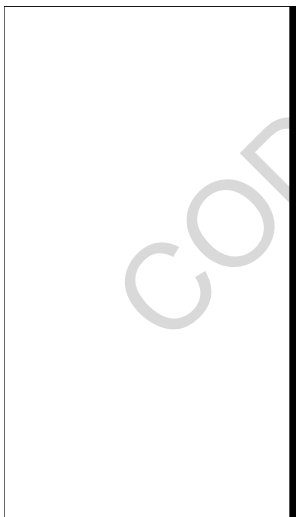
In the section below, the chapter discusses the case study approach.

3.4 The Case Study

This study adopted a case study approach. At the macro level, its unit of observation was the Mubvinzi Water User Board – one of the six water user boards in the Nyagui Sub-Catchment in Mazowe Catchment. Below are Hydrological Maps of Mazowe Catchment and Nyagui Sub-Catchment. The first map shows the 10 Sub-Catchments in Mazowe Catchment and the Study Area encircled in black. The second map is the Nyagui Sub-Catchment. Again the Study Area is encircled in black.

3.5 Study Area

The Maps below show the hydrological demarcations of Mazowe Catchment and Nyagui Sub-Catchment and the Study Area.



Map 3, 1 Mazowe Catchment and Study

Above is the Hydrological Map of the 10 Sub-Catchments and the Study Area. The Sub-Catchments include, Nyagui, Kairezi, Upper Mazowe, Middle Mazowe, Lower Mazowe,

To begin with, the quest to understand institutions involved in water management decisions through the representations of social agents (Freire, 1972) who exist in a natural symbolic, social and geographical spatiality (Bourdieu, 1990) dictated the adoption of the case study approach. In this vein, social space was viewed as the product of generative capacities of active social agents who engage in invention and improvisation (Bourdieu, 1990) – processes that constantly transform their social and physical landscape (Scott, 1985). By focusing the study on a milieu couched in precisely defined temporalities (Moore, 2005), the study chimes with Bourdieu's observation that social agents' perceptions of reality are more site-specific: they are very much dependent on their precise positions in the social and physical space (Freire, 1972; Bourdieu, 1990). The shared perception about the relevance of the Zimbabwe National Water Authority and Catchment Councils held by the villagers of Svisva, located in Nyagui Sub-Catchment shown in the Map above, who were not irrigating, varied from those held by the members of Taitikutamba irrigation scheme in Chabwino, who were irrigating. From this optic, the meaning of various precisely positioned agrarian aquatic micro-practices acted out by social agents – themselves products of a lasting shared experience of a social position in a definitive temporality – could hardly be gleaned through a survey, primarily because of the survey's Achilles' heel: the implicit objective search for invariable modes of perception, behavior and understanding across a wider physical spatiality. In much the same way, use of secondary data would have yielded little meaning and understanding of both subjective and objective institutions.

In hydrological terms, Mazowe Catchment was chosen primarily because it had been a pilot study under the Water Resources Management Strategy, initiated in 1995, initially with the assistance from the Government of The Netherlands and later from European Governments of The United Kingdom, Norway and Germany. It therefore provided an appropriate empirical context wherein institutions and their linkages were observed. In addition, there were many A1 and A2 and large scale farmers who engage in water based land use practices including irrigation. This made it possible to observe collective strategies of various groups of water users located in specific situations and places.

Pragmatic logistic reasons also influenced the decision to study Mubvinzi Water Board. It was chosen for its accessibility: it spans part of Harare's northern suburbs wherein the University of Zimbabwe, CASS Department is situated; and parts of Goromonzi and Shamva Districts. Secondly, this study was conceptualized and carried out within the requirements of the Master of Science Social Ecology program. Thirdly, the study lacked resources to support a huge survey. Whilst it is true that the researcher had two grants from the Water Research Fund for Southern Africa (WARFSA) and the Council on the Development of Social Science in Africa, the strict monetary policy that required the money to be accessed in local currency through the inter-bank rates reduced the value of the grants. Soaring month on month inflation worsened matters. A more manageable unit of study was necessary hence the case study approach.

Given that the Catchment is so gigantic in that it spans parts of three provinces with varying land-use practices, it is possible that whilst the results from the study are insightful with regards to understanding institutions and their modes of interaction, they may be more site-specific thus rendering them less generalizable. Some site-specific biases could have been encountered given that the study focused on one water user board in one Sub-Catchment of Mazowe Catchment. It should however, be pointed out at this juncture, that the researcher made a conscious effort to study different fast-track resettlement irrigation schemes with varying levels of water scarcity in order to offset biases.

3.6.0 Methods within the Case Study Context

The study used four basic methods: the unstructured in-depth interview, conversation analysis, participant observation and use of secondary sources. The methods were triangulated in ways that exploited their strength and minimized their weaknesses combined together.

3.6.1 Unstructured in-depth interview

The unstructured interview became handy in that it shunned rigidity and the imposition of pre-conceived analytical categories and allowed not only the emergence of new categories but also local discourses (Alasuutari, 1998). It allowed the researcher to employ a non-directive technique that gave a loose rein to the participant. This gave room for Measor's (1985, cited in Bryman, 1988) rambling which allowed the researcher to pick up and explore 'knots' of complexities into which deeper probing yielded interesting insights. It was through allowing this rambling that the researcher picked up the dispute between Chabvira and the Village Development Committee, a 'knot' that led to the evidence of emerging constitutional forms of organization. Whilst evidence from unstructured interviews was less comparable and generalizable, it is this lack of rigidity – the flexibility as it is known by proponents of the qualitative methodology - that allowed the researcher to keep sight of complexities while at the same time attending to mundane detail; the apparently superficial trivia and minutiae of social life (Bryman, 1988) that were of interpretive value. For example, it was through, paying attention to digressions and asides during the Mazowe Catchment Council Meeting that the researcher got cues that yielded data on the salience of the ruling party politics in water management. The Unstructured interviews were also handy in gathering data from key informants such as academics, bureaucrats and farmers. With key informants, the interview took the form of 'action research' (Holstein and Gubrium 1995 cited in Alasuutari, Ibid) in which the in-depth interview was used not only to explore relevant leads, but also to interpret emerging 'structures, resources and orientations (Alusatuuri, 1998: 148).' In this way, the researcher picked up and later elaborated analytic discourses of key informants. For instance, the analytic of bureaucratic neglect of processes in Catchment management emerged from a 'talk-in-interaction' form of interview³⁷ in which interpretation of the neglect of election at levels lower than the Sub-Catchment was explored.

³⁷ Dr. Manzungu, 26 September 2006, University of Zimbabwe, Harare

3.6.2 Conversation Analysis

Related to the qualitative interview was the use of naturally occurring specimens of languages that were later probed and analysed to yield more insights, particularly from the point of view of how they modified the 'atmospherics' of the context in which the languages were exchanged. Elaboration of languages, linguistics, semantics, rhetorics and discourses – the ensemble of the qualitative interview - uttered in specific milieus within definitive moments, informed the greater part of the analysis in this thesis. When as much of their meaning as their effects on the participants in the parlance were probed, they yielded insights of interpretive value. A case in point was when, after the Catchment Annual General Meeting where the Chairperson of the Council had extensively employed jargon; the researcher probed a ZINWA official to get insights into the meanings of these utterances and did not get much. By changing shift of focus from the meaning on to the effects (Alasuutari, 1998) of such utterances, the researcher discovered an otherwise latent process by which ZINWA were institutionalizing sub-optimality – leaving Catchment Councilors to work as they wished without any review mechanism. Let's consider the following vignette of an interview in which the researcher was probing the ZINWA official in order to confirm interpretation that had emerged out of the conversation analysis:

Researcher: What could have been implied by the Chairperson when he threatened to fire the Accountant during the AGM?

Official: {...} I told you not to take him seriously. He should not be taken seriously always.

Researcher: But the Accountant looked shaken by the threat. Do you think anyone could have been affected by the Chairperson's utterances?

Official: {...} some people are naturally irenic. They don't like confrontation and will just let it go without saying...

In the foregoing conversation, the researcher hit a snub when he sought official discourse on the elaboration of the Chairperson's uttering. Shifting to possible effects on the AGM

participants proved insightful. The utterances did have an effect of muffling critical voices of the accountant and significant others, particularly during the presentation and discussion of the budget.

In a similar vein, listening to naturally occurring parlance about the sitting allowances on the day of Nyagui Sub-Catchment Annual General Meeting³⁸, and analyzing them on-the-line, the researcher understood the rationality behind the ZINWA officials' last minute efforts to cash the cheque for the Councilor's allowances, even though we were already late for the meeting. Having gleaned the more natural discourse about the sitting allowance, the researcher then probed to get more confirmation on the discourses that had emerged. In this way the researcher elaborated the analysis of the sitting allowance as denoting a virtually literal meaning. In much the same manner, the discourse of 'place holding' in Catchment Council participation was gleaned and accorded more nuances during analysis.

3.6.3 Participant Observation

Participant observation proved to be an appropriate companion for the unstructured interview in that it captured the processes that could not have been captured by linguistics; the non-verbal cues (Glazer, 1972; Holdaway, 1983; Babbie, 1992) that allows observation of congruency between the linguistics and the immediate manifest action. By employing this approach during the encounter between the Officials and the Village Head of Svisva at his home, the researcher was able to detect underlying fear even as the village head revoked his liberation credentials. During meetings the researcher's assumption of the role of observer as participant gave him a vantage point to observe all asides; activities and communications that were not sanctioned by the chairperson and non-verbal reactions to verbal exchanges. The utility of these communicative acts was in observing the latent forces in conflict. In addition, observation was used in getting understanding of the physical landscape in the study area thereby capturing the strategies employed by farmers in irrigation. In some cases where conflicts were explored, it was necessary to understand

³⁸ ZINWA officials, 8 September 2006, Harare – Shamva Road

the physical landscapes that are associated with the conflict in order to gain a deeper understanding. More probing emanated from these observed communicative acts that were linked to specific sites within the physical landscape. Whereas it could be true that participant observation might not have yielded reliable data as participants could have modified their behavior during meetings, such biases were offset by the use of unstructured interviews and secondary sources including minutes and reports. And it must be recalled that the researcher through identity manipulation, became accepted and was therefore less of an intrusion to the community.

3.6.4 Secondary Sources

Although historical documents might not in themselves present reproducible truths (Burgess, 1992), the researcher used minutes of meetings held by Mubvinzi Water User Board, Nyagui Sub-Catchment Council, Enterprise Farmers Association and Mazowe Catchment Council financial and annual reports, work plans, financial statements and correspondences from the various institutions that interacted with the above institutions. The documents relate to the period between 1996 and 2002 and 2005 to 2006.

It was through a rigorous review of these documents that later yielded information on, and informed the thesis on access; a basic conceptual contour of the study: they provided evidence for the existence of the Enterprise Farmers' Association, an overarching institution that facilitated access in the sense assumed in this study. Given that the fast-track land reform dispersed white commercial farmers, secondary sources became handy in understanding the historicity of water institutions, especially those that existed in the milieus that have since been replaced by new forms of organization. Minutes of meetings held by the Mubvinzi Water User Board, River Wards and the Catchment Councils were useful in securing a historical understanding (Burgess, Ibid) of how Mubvinzi Water User Board developed. Although minutes of meetings may have been more of a bureaucratic official representation and interpretation of the reality that obtained then, analytics from historical evidence were verified through in-depth interviews with key informants. Through triangulating use of secondary sources with in-depth interviews, it was learnt that

bureaucratic official discourse, was usually 'adroitly' selective in ways that de-carnify the sources: the insightful 'knots' of complexities presented by the verbal linguistics and other 'communicatives' exchanged in the Catchment Council meetings were not captured in the minutes. The minutes were made conveniently skeletal in ways that eradicated their inadequacy. A case in point was the review of minutes of the 74th Mazowe Catchment Council meeting in which the researcher participated more as an observer. Compared with field work notes, the minutes were so terse that the researcher had to use in-depth interviews to re-carnify both the field work notes and the minutes so as to get a deeper representation of reasons explaining the failure of the Annual General Meetings to hold licit elections in the ten Sub-Catchments. However, on a more significant note, in-depth interviews then revealed evidence of the involvement of the ruling party as a stakeholder in water management: a Kaerezi Sub-Catchment Councilor tasked to invite stakeholders to the AGM, invited fifteen ZANU PF Rural District Councilors as water user representatives.

In addition, probing revealed the ways in which a bureaucratic official discourse was constructed. For instance Minutes of the 74th Catchment Meeting provides a typical case. They were proof-read, 'corrected', reproduced and certified by the Catchment Manager. In the subsequent meeting, they were adopted with minor adjustments. Legal rational authority (Weber, cited in Haralambos and Holborn, 2002) thus defined representation that was subsequently adopted as a collective representation of reality. Thus, as Vansina (1984) observes, using documentary evidence without outside sources may limit the researcher to selective collective interpretation, which becomes cumulative.

3.7 Ethical Imperatives

Ethics in social science research pertains to the considerations of right and wrong conduct mainly on the part of the researcher. Homan (1991) views ethics as having gone through an evolution where they have come to be no longer the philosophical study of such values as utility and good consequences, but are now at a stage of recognizing consensual standards used for judging examples of social research accordingly. From this optic, it became axiomatic that the conceptualization of research, choices of research methods and

involvement of participants be carried out within an understanding of ethics. Consequently, a number of ethical considerations were adopted.

Firstly, an a priori reflection of how the research participants were to benefit from the research process (Mararike, 1999) guided the conceptualization of the research. Consequently, the study was structured in ways that positively contributed to the agrarian transformation currently underway in resettlement areas thus at the same time, ensuring that it contributes to a participatory development process. In this order of thinking, the research was framed around livelihood issues. From this standpoint, the conceptualization also envisaged research respondents as active participants – social agents in close continuous communion with the reality (Freire, 1972; Seur, 1992) - rather than passive subjects responding to unidirectional scientific stimuli. The factor of participating in the research process and the overall development process brought to the fore emancipatory imperatives of the research: the participants were apprised of the purpose of the research (Dooley, 1995; Homan, 1991.) In most cases research participants inquired about the method of data collection. It was interesting to note that participants were not only motivated but were more comfortable with the unstructured interview. This could have been because it took the form of everyday parlance.

Space was provided to participants to impose not only their local discourses (Seur, 1992) but also their meanings on the research. Thus far from being a preset agenda, this research was more of a dialogue (Freire, 1972; Henwood and Pidgeon, 1997) in which mutual learning and sharing was engendered as opposed to imposition of analytics on the local people (Glazer, 1972; Henwood and Pidgeon, 1997). Rather than treating research respondents as solely constrained by objective structures, as already alluded to, fieldwork treated research participants as active social agents that were in an infinite process of transforming their spatial and social landscape. It was through this realization that the research fused interviews and participant observation within the context of dialogue. In short, the research was emancipatory and not extractive and exploitative (Mararike, Ibid).

Whereas the research as dialogue was adopted for sound ethical and emancipatory reasons, it tended to give too much room for the participants to lead the research in certain ways that facilitated their hidden agendas. For instance, a participant who was involved in the perennial dispute about ownership of Enterprise Farmer's Association properties between ZINWA and the Catchment Council on the one side, and Svisva Village Head on the other, urged the researcher to bring to ZINWA's attention that they should stick to their core function: water provision and not premises. She argued that ZINWA were dismal in their core functions because they were failing to stick to the knitting. Whilst her observation could have contained some modicum of truth, it at once reflected her wish to extend her stay in the contested premises. Such representation of reality may have negatively affected the scientificity of the study. Notwithstanding this possibility, the researcher employed a technique whereby he probed in detail when engaging the next participant, issues that needed clarification and crosschecking. It was this cross-checking that revealed hidden agendas of some participants. Nevertheless, this example shows that pursuit of ethical imperatives (Baumrind, 1971, cited in Homan, 1991) does have, in most cases, a negative impact on scientific rigor and vice versa.

Significantly and interestingly, research participants were quite aware of their limitations in synchronizing and formalizing their contributions (Bourdieu, 1990) thereby making them known to government officials. In this regard, the researcher played what Murphree (1997) terms the 'articulative' and 'interpretive' role designed to synchronize the participants' submissions and then circulate the results to government officials. This is a process that the researcher had already started beginning with the presentation of research results at a symposium in held in early November 2006 in Malawi. More importantly, the researcher has already published a paper based on the results in the *Journal of Physics and chemistry of the Earth*³⁹. A paper based on the results of the study was presented at the 4th World Congress of the World Civil Engineers held in Victoria Falls, in Zimbabwe from the 22nd to the 26th May 2007⁴⁰. In addition, another paper based on the findings was presented at the

³⁹ Chereni, A., The problem of institutional fit in integrated water resources management: A case of Zimbabwe's Mazowe Catchment. *Physics and Chemistry of the Earth* 32 (2007) 1246-1256

⁴⁰ The paper of thesis: 'Institutional Linkages and Sustainable Water Resources: A Case of Zimbabwe's Mazowe Catchment.'

5th Globelics in Saratov, Russia from the 19th to the 24th of September 2007. Where such circulation of finding is done, confidentiality is maintained and names of participants are kept anonymous thus protecting them from possible wrath and vindictive arm of the government.

Finally, the researcher tried to compensate participants' time spend in the research. The researcher met subsistence costs of informants and all those who attended meetings to discuss the findings. By doing this the researcher was probably setting precedence to all other researchers to recognize the value and costs of doing research with communities. It is a contribution that is not regretted, rather one which the researcher, hopes will find more occurrence in scholarship.

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Chapter Four

4.0 Research Findings and Discussion

4.1 Introduction

In this chapter, findings of the study are presented and discussed. As indicated in Chapter two, the results discussed herein are based on the search for an understanding of institutions that influence water use and management decisions at various levels and their linkages or associational relationships. They also relate to an examination of impacts of such linkages on sustainable water resources management; institutional capacity and performance.

To better conceptualize and appreciate the results, the objectives underpinning the study are reproduced as highlighted in Chapter two.

- 1) To seek an understanding of institutions involved at different levels of water management
- 2) To assess the role and performance of institutions involved at different stages of water management
- 3) To analyze the incentives and sanctions for water user participation at various levels of water management
- 4) To come up with theoretical and policy relevant recommendations for crafting and reconfiguring water management institutions

The results presented and discussed in this chapter relate to objectives 1 to 3. In addition to understanding institutions influencing water use and management practices, the first objective sought to examine the linkages; associational relationships and fit between these institutions. The last objective forms the mainstay of the submissions of Chapter 5. As discussed in Chapter 3, at a more local level, the foregoing objectives were tested within the context of the case study – Mubvinzi Water User Board, the unit of analysis at the local level – that falls within Nyagui, which is one of the 10 Sub-Catchments in Mazowe

Catchment. The imperative to understand temporal, horizontal and vertical linkages of institutions dictated that observations be made not only within Mubvinzi Water User Board, but also at the Sub-Catchment and the Catchment levels. Emphasis was placed on understanding local and middle level institutions and their linkages. In this way, an in-depth treatment of macro level linkages of legislation, policies and programmes is not within the scope of this study although this is no doubt, interesting to engage. Within the case study approach data was gathered through use of unstructured interviews, conversation analysis, participant observation and review of secondary sources.

The section *ut infra* presents and discusses institutions influencing water use and management decisions in Mazowe Catchment. Their roles are also presented and discussed. The performance of the Water User Board, Sub-Catchment Council and the Catchment Council is also examined using data gleaned from the research. After the summary of the findings, the ultimate section reflects on theoretical issues in natural resources governance.

4.2. Institutions in Water Resources Management

The schematic representation [Figure 4, 1 below] illustrates that from the grassroots up to the macro level, relationships among institutions that are germane to integrated water resources management are undefined. The modes of interaction between institutions influencing water use behaviors and management practices within Mazowe Catchment fall into three distinguishable levels namely: micro, meso and macro levels. At a micro level, Village Development Committees, Water and Irrigation Committees, Farmer Syndicate Committees, and Environmental Committees all wield influence on water use behaviors and practices in different ways. Slightly above these grassroots institutions in terms of scale and the span of spatial sphere of influence, is the Water User Board, made up of farmer representatives from different wards that are hydrologically-based. The Water User Board delegates the Chairperson and Vice Chairperson to the Sub-Catchment Council – a stakeholder institution that exists at the middle level which, in turn comprises stakeholder representatives of political leadership, modern leadership, traditional leadership and various government bureaucracies.

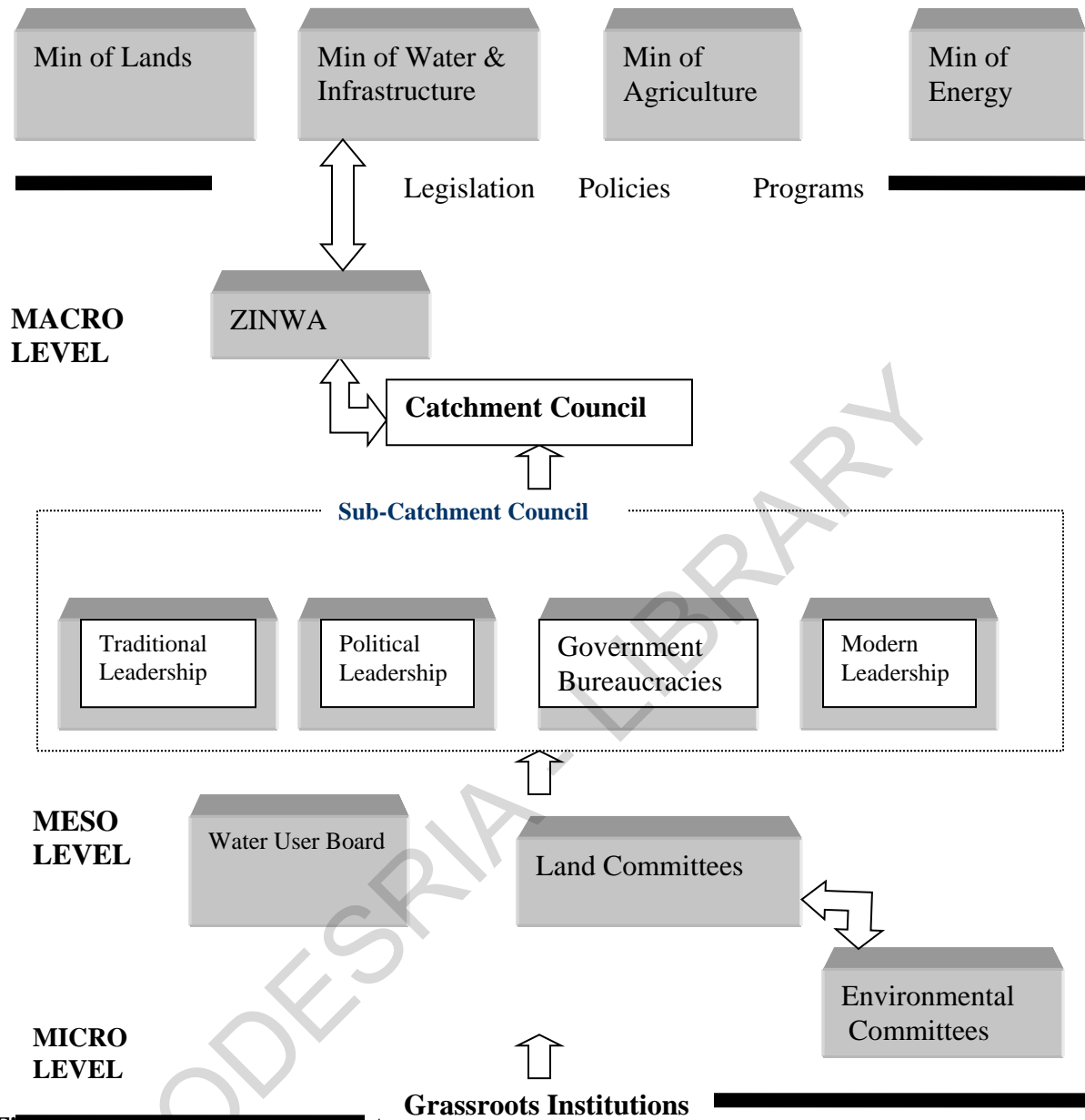
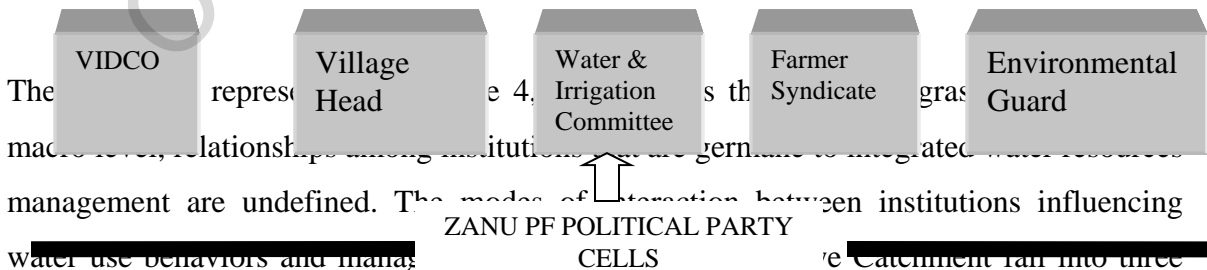


Figure 4.1 Institutions in water



The VIDCO represents the Village Head. The Water & Irrigation Committee is the Farmer Syndicate, and the Environmental Guard is the grass roots institution. At a micro level, Village Development Committees, Water and Irrigation Committees, Farmer Syndicate Committees, and Environmental Committees all wield influence on water use behaviors

and practices in different ways. Slightly above these grassroots institutions in terms of scale and the span of spatial sphere of influence, is the Water User Board, made up of farmer representatives from different wards that are hydrologically-based. The Water User Board delegates the Chairperson and Vice Chairperson to the Sub-Catchment Council – a stakeholder institution that exists at the middle level which, in turn comprises stakeholder representatives of political leadership, modern leadership, traditional leadership and various government bureaucracies.

A more or less similar arrangement is reproduced at the Catchment Council level that again is made up of delegated chairpersons of the Sub-Catchment Councils, representatives of Rural and Urban Councils (modern leadership), Chiefs (traditional leadership), miners, and various government bureaucracies including AREX, Department of Irrigation, Environmental Management Agency and any other stakeholder representatives the Catchment Councilors would deem important to be part of the Catchment Councils. There is a Chief in Mazowe Catchment who represents traditional leaderships. The Catchment Council works with Zimbabwe National Water Authority – a quasi-public entity that, has decentralized its offices mainly for administrative purposes in each of the seven catchments, including Mazowe Catchment.

Institutions at the macro level include legislation, policies and programs that influence water use and management behavior at all levels. These include the Water Resource Management Strategy, Water Act, ZINWA Act, Environmental Management Act, Land Acquisition Acts, and Traditional Leaders Act *etcetera*. Environmental policies and legislation, it is observed, have either implicitly or explicitly assumed sustainability goals. At the apex, are different Ministerial Departments whose programmatic activities affect water management at lower levels. Below roles of institutions in water resources management are presented.

4.2.1 Micro Level Institutions

4.2.1.1 Political Party Cells, New Traditional Leadership and VIDCOs

Water users in the three fast-track A1 villages of Svisva, Marden Svisva and Chabwino are first and foremost members of ZANU PF political party cells, a phenomenon that is consistent with the regional practice⁴¹. The village cell - the lowest ruling Party architectural structure based on a spatial criterion characterized by proximity of members and close interpersonal communication – is a handy political technology that yields desired forms of discipline (Brand, 1996), even though it sometimes serves to mobilize resources from higher echelons of the state functionaries (Nhira, 1994). Formed during the land occupation period between 2000 and 2003, party cells are very influential in mobilizing people into forms of discipline and organization that are conducive to collective communion with water problems. A water user known to be active in the cell, and whose behavior is frequently viewed as one that chimes with the collective thinking within the cells, is recommended, nominated and elected or appointed into the Village Development Committee (VIDCO). Although the three Village Development Committees studied were externally engineered, some committees akin to VIDCOs had arisen spontaneously and were already in place.

In the three villages studied, there have been Village Development Committees that emerged to solve, among other things, various organizational and environmental problems, including water access problems during the chaotic fast-track inception phase of the land reform. The case study below illustrates that the institution of VIDCO and later the Water Committee emerged to address specific problems of collective access to land and water resources.

Case 4.1 *Historical Emergence of Institutions*

In Marden Svisva, the first VIDCO emerged, to principally assume custody of natural resources during the '*jambanja*' – a colloquialism coined to denote the chaotic and violent nature of this land resettlement. During the first three years of occupation, Mrs. Capon – the owner of the occupied farms and the only water right holder then – could not have misfired when she showed villagers that she was keen to exclude them from irrigating on the basis that they had no water rights. But she

⁴¹ The study area fall into Mashonaland Central that is a ZANU PF Party stronghold

had lost part of her land rights: fast-track boundaries isolated Mrs. Capon from her employees' compound which now falls within the precincts of the village. The scenario revoked the pre-fast track epoch where indigenous farmers could – under the 1998 water legislation, apply for water but had no access to irrigable land. Having lost some of her land to the villagers Mrs. Capon was thrown into a bargaining position. Under the leadership of the first VIDCO, which worked more closely with paramilitary units including the militia *de facto* war veterans and war veterans (Moore, 2005), the villagers exploited the opportunities presented by the new spatial termini and used it as leverage during their struggles for water access. They demanded that if Mrs. Capon excluded them from irrigating, then her employees should vacate the compound that falls within the confines of the village, thus setting a *quid pro quo* scenario.

Fearing expropriation of her farms, beatings and ridicule from the authoritarian nationalist leadership in the region, Mrs. Capon was forced to give in, obliging herself to allow the villagers to irrigate with the water she was permitted to use by ZINWA. However, Mrs. Capon's gesture was only short-lived. She had planted earlier than the villagers. As soon as her crop matured and she needed no more irrigation water, she stopped her pump at Svisva Dam. Consequently, the villagers' crop wilted and dried.

When Mrs. Capon fled in the thick of the '*jambanja*', she left her seasonal electricity bill unsettled. It could have been that she questioned the legitimacy of the bill given that villagers had illicitly accessed water. It could also be that in the thick of violence that characterized the chaotic fast track land reform, Mrs. Capon simply had no time to settle her bills. The general thinking among the villagers is that these were acts of sabotage probably emanating from the eminence of losing farms. ZESA responded by cutting off power. Meanwhile, ARDA had settled at Mrs. Capon's Amritsur Farm. It is the first VIDCO that enrolled and negotiated with ARDA for the settlement of the inherited electricity arrears. The resultant arrangement was that the villagers paid 30 % of the bill while ARDA settled 70 %. Recognizing the magnitude of the problem of water access, villagers decided to elect a three-member water and irrigation committee.

The case study *ut supra* illustrates the role of the VIDCO in a specific temporal space. Within this space characterized by struggles for access to contested resources that include land and water, the VIDCO, whether spontaneously or otherwise, assumed the role of mobilizing and organizing people into some form of a 'battalion' in which they mooted and implemented strategies designed to win struggles for physical access to resources.

Physical access to water resources comes out as a political struggle in which those that have privileged access to these coveted endowments are not prepared to let go their hold. It is a struggle in which the puissance of strategies is conscribed to yield footholds on resources, little by little. Such depiction of access as a political struggle does challenge the

inherent assumption of IWRM and the Water Reforms in Zimbabwe – that ‘resultant economic and social welfare’ would be distributed in an ‘equitable manner.’ It is true that economic and social welfare are ‘resultant’, but they can only be realized from political processes characterized by struggles for access to coveted resources.

Acts of sabotage, such as leaving unsettled electric water bills and stopping the pump to wilt villagers’ crops, which are more or less the same strategies adopted by Mrs. Capon are reminiscent of the liberation struggles for the access to land and water resources (Ranger, 1985). Access to the coveted land and water therefore, is not an offspring of; neither is it completely guaranteed by legislative concessions – although they provide an indispensable framework. Access, at least in the physical sense appears to be more of an emergent of political struggles.

The Case Studies below show the emergence of traditional leadership in new resettlement landscapes. It also illustrates that they are a key institution in the facilitation of access to water resources.

Case Study 4.2

New Traditional Leadership

Nyandoro, an elderly man in his late fifties is the Village Head of Marden Svisva, an A1 village comprising more than 40 households. He recalls that before he was appointed Chairperson in about 3 years ago, there was a female Village Head. The former Village Head was a war veteran and one of the people who pioneered the land occupation within Enterprise farming area. After her death, Nyandoro, a non-war veteran was appointed by Chief Chinamora as the new village head. Although the current village head is not a former freedom fighter, Chief Chinamora revealed that he considered his senior age and maturity in appointing him. In 2004, elections of the Village Development Committees were held under the supervision of the District Administrator from Goromonzi. By virtue of being the village head, Nyandoro became the Chairperson of the VIDCO *ad infinitum*. The Village Development Committee is made up of seven members comprising a chairperson who is the village head, vice chairperson, secretary, vice secretary, treasurer, women’s as well as youth representative. The Village Head revealed that efforts were being made to draft a village constitution that would guide governance issues in the village. Although the Village Head is the overall leader, he has to consult with the VIDCO before reaching any final decision. He expressed optimism that as the Village Head he would be able to lead his people in peace especially when the village constitution is finalized and adopted.

In addition to the depiction of the emergence of the traditional leadership identities within resettlement spaces, Case Study 4.3 below also portrays the VIDCO in a different temporality characterized peaceful facilitation of access to water resources.

Case 4.3 *Svisva Village Development committee's Involvement in Water Use Planning.*

Village Head Mbizi, a war veteran, ZANU PF cadre and the local party branch's representatives into the ruling party's coordinating committee, which falls under the National Commissariat. The National Commissariat is tasked, among other things, to ensure the ruling party's political survival. By virtue of his appointment as the Village Head, Mbizi is the chairperson of Svisva Village Development Committee, *ad infinitum*. He is one of the pioneering war veterans who were instrumental in strategizing farm occupations within the study area. Originally from Uzumba, Mr. Mbizi moved into Enterprise farming area at the inception of the farm occupations. Unlike his fellow 'subjects' who stay in mud huts, Mr. Mbizi was not only fortunate in that he was appointed, principally on the basis of his pioneering role in these millennium land occupations, as the village head by Chief Chinamora, but also in that he occupied a former white man's homestead situated a few meters from Svisva Dam. Mr Mbizi and his fellow prospective irrigators are divided into four groups according to the format in which underground irrigation pipes were laid. In spite of the presence of source to field irrigation infrastructure, nearly 45 farmers in his village are not irrigating due to absence of infield irrigation pipes. Mr. Mbizi and his fellow VIDCO members have been very influential in collecting monetary contributions with which they are facilitating a loan from Agribank and the procurement of irrigation pipes from the Department of irrigation. A general impression gleaned from in-depth interviews was that the VIDCO would elect a water and irrigation committee that would be mandated to deal with specific water and irrigation issues.

The two case studies above illustrate the historical emergence of a unique and new genre of traditional leadership in fast-track resettlement areas. Village heads are appointed by Chief Chinamora without consideration of historical profectitious and spiritual ties to the land. This could be a result of the prominence given to the nationalist discourse of land reform over the restitution discourse (Chaumba et al, 2003). The restitution discourse views the descendants of former historical indigenous or autochthonous occupiers of the land as the prime beneficiaries of land resettlement. In this regard, leadership is not appointed: it is inherited according to lineage. In what appears to be a sharp contrast, the prominence given to the nationalist discourse in which land signifies a national materialistic object and

symbol of unity and sovereignty, meant that there would be no lineages in place to inherit or assume the leadership. It is therefore understandable why the paramount chief was called in to appoint traditional leadership.

By making the Village Head the Chairperson of the Village Development Committee *ad infinitum* whilst at the same time requiring that he work with the VIDCO whose members he can not dismiss, local government authorities have molded a new form of traditional leadership which has checks and balances provided by the VIDCOs. The village constitution being crafted suggests that there is a monochronous existence of traditional leaderships alongside more constitutional forms of organization wherein social interaction and transactions of individuals would be partly based on more explicit formalized modes of behavioral expectations. Case study 4.3 above portrays that such traditional leadership has worked closely with the VIDCO in facilitating physical access to water resources. It also portrays the role of the VIDCO in a slightly different temporal space that is less chaotic. The roles of the VIDCOs could still be best described as monothetic: facilitating farmers' access to water resources. However, unlike in the first case study the VIDCO in case 4.2 has been involved in improving people's access to resources through the collection of monetary contributions needed to facilitate the procurement of irrigation pipes.

4.2.1.2 A2 Farmer Syndicates.

In addition to the Water User Board and River Wards (river groups), white commercial farmers within local settings before the fast track land reform, were also organized in Syndicates. For instance, there existed within Mubvinzi Water User Board Mt Olympus Syndicate⁴². The Olympus Syndicates comprised about 8 white commercial farmers. Apart from providing a platform for interpersonal interaction and participation of grassroots

⁴² Minutes of Meeting of The Mount Olympus Syndicate held on Thursday the 25th of June 1998 at Mubvinzi Water User Board Offices, Enterprise

farmers, the Syndicate was also a crucial institution with regards to water development. A case in point is Mt Olympus. In 1998 managed to repair Mt Olympus Dam at a cost of Zw\$469,000-00⁴³. In addition to dam repairs, the Syndicate also maintained insurance cover for the dams of Mt. Olympus and Remare⁴⁴. Atlanta Dam Syndicate is another example of a group of farmers who came together for water development. In February 2000 the Syndicate mooted out mechanisms designed to monitor use of water in Atlanta Dam⁴⁵.

Seven A2 fast track resettlement farmers, who share a section of Mukwene farm totaling nearly 279 hectares and two irrigation pumps, are also organized in a Syndicate that has a chairmen, secretary and treasurer. The role of the Syndicate leadership is to help organize farmers in the Syndicate in ways that spearhead collective action in the pursuit of access to resources for agricultural production. Data from respondents suggest that the syndicates have come together to facilitate, among other things, fair access to water as they share the same reservoir, two electric pumps and underground main irrigation pipes. The syndicate leadership coordinates and collects member contributions for offsetting electric bills. In addition to water related issues, a cementing factor among the members of the syndicates is that they are members of the ruling ZANU PF party.

4.2.1.3 Environmental Committees and Subcommittees

There is a representative of the Environmental Subcommittee in each village acting as a conservation guard. Based on the landscape and biodiversity characteristics, proximity of settlements and accessibility, lands in Zimbabwe are divided into environmental districts that fall under the jurisdiction of Environmental Committees. Environmental Committees are typically made up of half Rural District Councilors and Non-Councilors. A typical environmental district could be made up of more than 25 local government wards. Clusters

⁴³ Minutes of Meeting of The Mount Olympus Syndicate held on Thursday the 12th of November 1998 at Mubvinzi Water User Board Offices, Enterprise

⁴⁴ Minutes of Meeting of The Mount Olympus Syndicate held on Thursday the 20th of August 1998 at Mubvinzi Water User Board Offices, Enterprise

⁴⁵ Minutes of The Atlanta Dam Syndicate held on Monday the 14th of February 2000 at Enterprise Country club, Enterprise

of six to ten wards usually make up an environmental subcommittee, again comprising half rural district councilors and half non-councilors.

4.2.1.4 The Water User Board

Minutes of meetings⁴⁶ of Mubvinzi Water User Board suggest that it comprised representatives from a number of river wards that included Shamva Ward, Cherika Ward, Mondotwe Ward, Munenga Ward, Harare Ward, Mapfeni Ward, Mutenje Ward, Upper Mubvinzi, and Lower Mubvinzi. There were representatives of the Large Scale Commercial Farmers and Small Scale Farmers. The chairperson and vice chairperson of the WUB represent the WUB in Nyagui Sub-Catchment Council. Like the Catchments and the Sub-Catchment Councils, the establishment of the Wards followed drainage streams and water courses.

The Water User Board should ideally assist the Sub-Catchment Council in their responsibilities. These responsibilities include monitoring water use practices to make them consistent with water permits issued, assisting in taking readings from measuring devices and collection of any other hydrological data and the collection of rates, fees and levies.

4.2.1.5 Land Committees

As part of a nationalist initiative to sanitize and regularize the chaotic land occupations, Land Committees were established during the early stages of the fast track land reform. District land committees processed applications for A1 farmers while Provincial Committees allocated land to A2 farmers. Offer letters were issued from the Ministry of Lands and Agriculture in Harare. The Goromonzi District Land Committee is made up of a District Administrator, representatives from the Rural District Council ruling party, police force, Environmental Agency, war veterans and chiefs. The Provincial Land Committee is

⁴⁶ Minutes of Mubvinzi Water User Board held on Wednesday 17th of June 1998 at the WUB Offices, Enterprise

equally comprised in terms of representation. There is a Provincial Administrator in the Provincial Land Committee. In both committees, there is a conspicuous absence of representation of water management institutions namely: water user boards, Sub-Catchment Councils, Catchment Councils and the Zimbabwe National Water Authority. It could be that water management institutions had not put their houses in order when the fast track land reform erupted and therefore could not be involved in the process until now. This could be probable given that in terms of the racial factor in both Mubvinzi Water User Board and Nyagui Sub-Catchment Council, participation was tilted towards the white commercial farmer. Given the plethora of racially targeted violence that characterized the millenarian land reform especially at its inception, it is not surprising that these water institutions have not been involved in the process of land distribution.

4.3.0 Middle Level Institutions

4.3.1 The Sub-Catchment and Catchment Councils

At the *meso* level there are four regimes of leaderships representing the local level institutions. There are political leaderships, modern leaderships, Traditional leaderships and government bureaucracies. This delineation of leadership is at best conceptual. In practice, these leaderships do overlap.

According to Statutory Instrument 47 of 2000⁴⁷ the remit of roles of the Sub-Catchment Council includes the following:

1. They regulate and supervise the exercise of permits
2. They monitor water flows and water use in accordance with the permits
3. Sub-Catchment Councils should ensure the installation of measuring devices
4. Electing persons to the Catchment council who represent the interests of the Sub-Catchment Council

⁴⁷ Water (Sub-Catchment Councils) regulations, Statutory Instrument 47 of 2000 [CAP. 20:24]

5. Promotion of Catchment protection
6. Assist in the collection of data and planning and,
8. Collection of sub-Catchment rates, fees and levies.

The performance of the Sub-Catchment Council with respect to the above functions will be discussed in the ensuing sections.

4.3.2 Political Leadership

Political leadership within Nyagui Sub- Catchment and Mazowe Catchment Council is dominantly ruling party. This is understandable in that the study area falls within Mashonaland East and Central - provinces that historically are strongholds of the ruling party (Lan, 1985). Political representatives are ruling ZANU PF councilors, war veterans, and party representatives and appointees. In as much as they view themselves as representing water interests of their respective constituencies, there is a modicum of consensus – often salient in parlance exchanged in meetings – that they safeguard the ruling party’s agrarian interests.

4.3.3 Modern Leadership

Modern leadership is made up of representatives from the Water User Boards, small-scale and large scale miners. The role of small-scale miners is to push an agenda for water access on behalf of the miners. In addition, there is a woman representative within the Catchment Council whose presence is meant to encourage women participation and safeguard women’s interests in water access.

4.3.4 Traditional Leadership

Within Nyagui Sub-Catchment and Mazowe Catchment Councils Village heads and Chiefs are represented. As already discussed, the nature of traditional leadership in the resettlement varies considerably from the communal areas in that the Village Head are appointed without any reference to autochthonous, historical and spiritual claims to land. In most cases, those who were in the forefront during the inception of the chaotic land occupations were appointed. However, Chief Chinamora who is also a beneficiary of the fast track land reform and resides in one of the three villages claims to have historical ties to the resettlement land, which now falls within his jurisdiction. In Nyagui Sub-Catchment, village heads of the three villages studied attend Sub Catchment Council meetings. At the Catchment Councils, there are represented by Chief Chinamora. Within the Sub-Catchment Councils and the Catchment Councils representation of Spirit mediums was conspicuously absent.

4.3.5 Government Bureaucracies

There are a number of bureaucratic departments in the Sub-Catchment and the Catchment Councils. These include among others, AREX, Environmental Management Agency, Forestry Commission, Irrigation Department and Rural District Councils.

4.4.1 Institutional Associational Relationships

Colonial and postcolonial governments crafted institutions to regulate access to land and water resources as some form of *quid pro quo* trade in which the government enlisted the loyalty of important social groups into larger governmentality objectives (Herbst, 1990; Stalgren, 2000; Dzingirai, 2003; Moore, 2005). Often when such institutions were established, their relationships with existing institutions with regards to mandates, roles, spatial precinct and direction of accountability were not specified. Evidence from Mazowe

Catchment suggests that even when they are not spontaneous, institutions that influence water use practices and management decisions at various levels lack institutional harmony and synergistic associational relationships necessary for the practical implementation of IWRM principles. Far from fostering integration, these institutions still operate on more sectoral basis.

Undefined associational relationships – a picture characterized by a dearth of specified mandates, role expectations, lines and direction of accountabilities between institutions involved in water resources management – persist in Mazowe Catchment. An array of institutions including the grass roots ZANU PF party cells, Village Development Committees (VIDCO), Water and Irrigation Committees, traditional leaderships, Water User Boards, District and Provincial Land Committees, Catchments Councils, and government bureaucracies are involved in water and land resources management albeit, without specified mandates, roles, responsibilities, and directions of accountabilities (Nemarundwe, 2003). For instance, it is not clear whether AREX is accountable within the Catchment Council. Water User Board representatives interact with government bureaucracies without specified expectations. Consequently, there is dissonance between the gamut of institutions involved in the management of land and water resources in Mazowe Catchment. This dissonance is often exhibited in contexts characterized by some form of confusion of precinct between discordant institutions. The Case Studies below illustrate this deficiency of defined associational relationships. The first Case Study illustrates evidence of institutional pile-up – a scenario whereby an institution is crafted to assume functions which have already been assumed by existing institutions. In addition, it illustrates evidence of lack of functional harmony between the VIDCO on the one hand and the Water and Irrigation Committee on the other. In the second Case study, there appears to be a virtual absence of fit between land water management institutions.

Case Study 4, 4 *Institutional Pile-up and Dissonance*

In Marden Svisva village a three-member committee has been very influential and active in the village's efforts to secure irrigation equipment from the Department of irrigation. Mobilized by the gifted Water and

Irrigation Committee Chairperson, villagers made monetary contributions towards the cost of facilitating the procurement of infield irrigation pipes from the Department of Irrigation. The Agribank and the Department of Irrigation that had sent an engineer to inspect the area had accepted the application for pipes. The Village Head and the Vice Chairperson recall that the engineer recommended that infield pipes needed to be installed at one go for the whole village.

Unlike the rest of the villagers who were waiting for the irrigation pipes from the Department, Mr. Chabvira, based and employed in Harare, secured a bank loan with which he used to procure his own sprinkler pipes. After consulting with an engineer from the neighboring ARDA's Amtritur Farm on the feasibility of joining his sprinklers onto the main underground pipe, Mr. Chabvira met with the Water and Irrigation Committee who gave him the green light to install his irrigation pipes. Meanwhile, a village constitution that also dealt with water and irrigation issues was being crafted. Mr. Chabvira revealed that according to the draft constitution, the go-ahead given by the Water and Irrigation Committee was constitutional.

However, the Village Development Committee contested Chabvira's intentions to link his irrigation pipes to underground main pipe. Using the Irrigation Department engineer's recommendation as their position, they argued that it was improper for Chabvira to fix his pipes before other villagers' pipes were ready. Chabvira could not be easily mollified. He enlisted the intervention of Chief Chinamora who, to his dismay, only rubberstamped the VIDCO's position and suggested that he wait until all the villagers accessed irrigation infrastructure. Notwithstanding that Chabvira's plot is situated at the last end of the main pipe and that fixing his pipes would not in any case, jeopardize other users' access to water, the Village Head, the VIDCO and the Chief still expressed fears that if Chabvira unilaterally installed pipes, he might endanger equitable water distribution. Events came to a head when the VIDCO rejected the first draft constitution on the basis that it placed too much decision making power into the hands of the water committee. The Vice Chairperson openly said that "This committee has developed wings, they have usurped power."⁴⁸ Subsequently, a lawyer was hired to draft a new constitution that, as hoped by the VIDCO, would reflect the 'true balance of power' between the VIDCO and the Water and Irrigation Committee. The true balance of power that the Vice Chairperson wants would see the water committee subsumed in the VIDCO. "We will specify their jurisdiction that they should begin and end at this point,"⁴⁹ said the Vice Chairperson.

Chabvira is a dejected man. He hoped, that the Chief would rule in his favor so that he would start irrigation and plan paying back his loan thus lessening interests. Instead, Chabvira had earned mistrust from his leadership. The VIDCO and Chief Chinamora accuse Chabvira as a 'stand-alone' who absents himself at important village meetings.

⁴⁸ Nyandoro Village Development Committee Vice Chairperson, 13 September 2006, Enterprise

⁴⁹ Nyandoro Village Development Committee Vice Chairperson, 13 September 2006, Enterprise

If the case above illustrates institutional pile up coupled with dissonance in the mode of interaction between institutions, then the one immediately below suggests a virtual absence of fit between the institutions necessary for water resource management.

Case Study 4, 5 *Absence of Institutional Fit*

Sub-Catchment Councils are required by legislation to hold Annual General Meetings where new councilors are elected. On the day that the 2006 Nyagui Sub-Catchment Council AGM failed to materialize, the Catchment Coordinator and his team decided to get to the root of the perennial dispute of the ownership and control of the Enterprise Farmer's Association premises before we drove back to the city.

What remains of the Enterprise Farmer's Association are the Mubvinzi Water Board Offices, Former Water User Board Executive Officer's residence, a bar, library, the hall and race course. Some offices have been turned into residences. The tennis court and golf course are rundown and presently used as grazing area for the two villages of Svisva and Marden Svisva. A few weeks before this particular encounter, Svisva Village Head, Mbizi had approached the WUB technician who uses one of the former WUB offices as his single accommodation with the view to make ZINWA pay rentals for using the WUB offices. This did not go down well with the Catchment Council staff that is of the opinion that the former white commercial farmers' premises should be managed by the Catchment Councils or the Sub-Catchment Councils.

The first port of call was the former Water User Board executive officer's residence. A former woman war veteran who was using the former executive officer's residence made it clear that she was paying rentals to Svisva Village Head. We drove to the Village Head's homestead, a former white commercial Farmer's residence situated next to Svisva Dam. Asked about the status of his ownership of the premises the Village Head said all the properties within the premises belonged to him and that he had seen it fit that ZINWA pay rentals. A ZINWA bureaucrat read out SI 47 of 2000 section 18⁵⁰ that explicitly highlight the handover of River Board activities to the Sub-Catchment Council. The Village Head restated that the premises were legitimately his and added he had a permit for using the whole premises in his own ways. The Officer re-emphasized the provisions of the SI and added that "As far as we are concerned you are not the owner of the properties of the WUB"⁵¹ Another ZINWA official asked that in the event that a cheque was processed what would it be for and who should be the drawee. The Village Head saw that the officers were serious and watered

⁵⁰ Water (Sub-Catchment Councils) regulations, Statutory Instrument 47 of 2000 [CAP. 20:24]

⁵¹ ZINWA officer 3, 8 September 2006, Enterprise

down. In well calculated obloquy, he argued that had it not been the fact that he had secured the permit to maintain the place during the '*jambanja*'- (a colloquialism denoting the violent and chaotic nature of the land fast track reform), ZINWA could not have found the Water User Board property in the 'good' state that it was. After some questions about the legitimacy and authenticity of his permit to own the premises, the village head boosted his voice projection and invoked his liberation war credentials, "I can't be frightened in a free Zimbabwe. I am a citizen and I have suffered for this..." The officials promised to come back but emphasized that no cheque was going to be signed for the village head.

Specifications of roles, responsibilities, expectations, and lines of accountability among institutions – the sum of an associational relationship, are indispensable in the practical implementation of IWRM principles in local contexts. Specified remit of roles with regards to water and land resources management as well as jurisdiction over a defined spatial termini are necessary for harmonious institutional interaction. Where such associational relationships are not defined, evidence above suggest, the grassroots often become landscapes of contests between institutions that often compete to influence the behavior of actors. In the first Case Study *ut supra*, the Water and Irrigation Committee was established to assume roles within a spatial and social space in which the VIDCO had assumed similar roles in previous temporalities. The case studies illustrate that even when it was the making of the village including the VIDCO, the advent of the Water and Irrigation Committee into this geographical and socio-political space ushered in some institutional dissonance that manifested itself in the form of a confusion of precinct between the VIDCO and the Water and Irrigation Committee.

In the absence of specified functional associational relationships, institutional relations are often constructed around an orbit of power and control. "This committee has developed wings, they have usurped power,"⁵² observed the Vice Chairperson. Although the Water and Irrigation Committee was established to deal with a range of aquatic issues including water development, the VIDCO was keen to stretch its muscles by constraining the behavior of resettlement villagers in the domain of water development. Within this local context characterized by contests, the centrality of power can not be diminished: power, it appears, is signified by the modicum of influence wielded by a particular institution on the

⁵² The Vice Chairperson, Nyandoro Village Development Committee, 13 September 2006, Enterprise

behaviors of actors within a defined spatial and social space. From this optic, power and counter power become fugitive resources (Foucault, 1979; Agrawal and Ribbot, 1999) that, in the Case study above were invoked and deployed to define hierarchical relations between the two competing institutions. When Chabvira got the green-light to link his infield irrigation pipes to the main underground pipe, he still had to contend with puissant opposition from the Village Head and his Development Committee and the Chief. Hierarchical relationships wherein the VIDCO is the overall decision maker at the village level – the configuration supported by the VIDCO signifies that an institution created to assume management functions of a specific natural resource such as water or forestry can not be the single sovereign (Moore, 2005) even if theoretically speaking, it was the only institution crafted for that natural resources sector. While such evidence challenges the rationality of creating institutions with credible commitments to manage various natural resources sectors (Ostrom, 1990) – a strand of thinking so apparent in new institutionalism – it tends to reinforce the wisdom of integration inherent in IWRM. From this perceptive, the disharmony between the Water and Irrigation Committee and the Village Development Committee shows that in practice, precincts of institutions do overlap.

Although the Village Development Committee, worked so hard to thwart the decision-making influence of the Water and Irrigation Committee, it appears, were very much aware that they could never be the only sovereign in the village. They expected, rather rationally, in the words of the Vice Chairperson that the Water and Irrigation Committee would exist but “under the wings of the VIDCO.”

The constitutional recourse sought by the feuding institutions could be viewed as a process whereby local grassroots institutions that find themselves mired in a confusion of precinct autogenously seek to construct ‘functional’ associational relationships. The Vice Chairperson of the VIDCO hoped that the village constitution that was being drafted “will specify” the precinct of the Water and Irrigation Committee, thus defining where they should begin and end. By this analysis and given that the VIDCO rejected the first draft constitution on the pretext that “it gave too much power” to the Water and irrigation Committee, resultant associational relationships, are likely to be constructed around an

orbit of relations of power and authority. It is most likely the case that the final constitution that would be accepted and adopted by the VIDCO would be a proxy of power relations deployed to define the complexion and sphere of influence of either of the feuding institutions.

Whereas poorly specified role expectations and lines of accountability characterized the associational relationship between the VIDCO and the Water and irrigation Committee, there appears to be a virtual absence of fit between the land and water institutions. Whilst the Village Head in Case Study 4, 5 above, claimed that he had a permit issued by the Provincial Administrator at Marondera, ZINWA officials contested the legitimacy and authenticity of his permit from a statutory position. Statutory Instrument 47 of 2000 Section 18(1)⁵³ clearly stipulates the handover of river board activities to Sub-Catchment Councils. Effectively, ZINWA officials interpreted the statutory instrument to mean that infrastructure used by the River Boards and the Water User Boards before the fast-track land reform should now be controlled by the Sub- Catchment Councils in the new water management dispensation.

In defiance very much in vogue with the millenarian ruling party war veterans' claims on land, the Village Head invoked his war credentials and in so doing, made clear the direction of his accountabilities and allegiance: a war veteran who is one of those who pioneered farm occupations in the area and a beneficiary of the fast-track land reform, appointed Village Head by Chief Chinamora, Mbizi was not accountable to ZINWA secretariat. He had satisfied the Goromonzi District Land Committee criterion on land allocation and benefited not only an A1⁵⁴ plot, but also the former white farmer's homestead. In order to cultivate allegiance among its subjects, the government frequently affects relationships between men and things (Foucault, 1979; Moore, 2005) and often this relationship is deliberately made obfuscate. Improved indigenous access to water resources in the turn of the millennium owes its provenance and sustenance to a strong central government that

⁵³ Water (Sub-Catchment Councils) regulations, Statutory Instrument 47 of 2000 [CAP. 20:24]

⁵⁴ Fast Track Resettlement Model consisting of individual residential and arable plot. Farmers share a grazing common (Makadho, 2006)

enrolled peasants into multiple and militant identities (Chaumba et al, 2003). In this manner, equitable water and land access faces obstacles within the very systems that facilitated it in the first place: new militant identities in Mazowe Catchment ushered in by the Fast-Track Land Reform, it appears, are incompatible with democratic water dispensation.

Whilst a synergistic interaction between the land and water institutions is germane to sectoral integration in Integrated Water Resources Management (Koudstaal, Rijisberman and Savenije, 1992), there is, within Zimbabwe's Water Resources Management a wide chasm between principles advanced by IWRM and practical implementation in local spatialities:

- (i) the Sub-Catchment and Catchment Councils are not represented in the Land Committees and the opposite is also true.
- (ii) these committees followed politico-administrative boundaries whereas Catchment Councils are hydrologically based. Contrasted with District and Provincial Land Committees, Water institutions, from the User Board upwards, are larger in spatial terms. For instance, Mazowe Catchment Council's spatial precinct spans much of the three provinces of Mashonaland East, Mashonaland Central and Manicaland⁵⁵.
- (iii) partly due to these overlapping termini between the land and water institutions, it is difficult to locate corresponding levels that can synergistically integrate. For instance, should District Land Committees be represented in the Sub-Catchment or the Sub-Catchment level?

Whereas the Catchment Councils are decision-making stakeholder institutions, in Mazowe often representatives of some government bureaucracies such as AREX and the Environmental Management Agency that are invited for Catchment Council business are not placed such that they can meaningfully contribute to decision-making in water resources management issues. The practice has been and continues to be that an AREX officer, for instance, based in the vicinity of the venue of the catchment meeting is invited without his respective Head of Department knowing⁵⁶. Such evidence illuminates the discourse of placeholder participation as opposed to stakeholder participation. It is placeholder in that bureaucrats who do not have decision-making positionality attend catchment and sub-catchment council meetings dutifully.

⁵⁵ These observations are not new. Literature on water reforms in Zimbabwe is dense with this inference. Chikozho, (2001), Stalgren (2000) and Swatuk, (2002) among many have shown that administrative and hydrological boundaries overlap

⁵⁶ The observations were made by Mrs Chabva of the Environmental Agency, 13 November 2006, Harare

A mordent audible in the Case studies and discussion *ut supra* is that where associational relationships are poorly defined or non-existent, the rationalities of jurisdiction, responsibility and accountability are often obscured. The VIDCO in Chabwino was keen at controlling the Conservation Guard who is the Environmental Sub-committee representative. They required that he report to the VIDCO any environmental offences that are committed within their jurisdiction. During an interview, the conservation guard expressed confusion over steps he would follow if he were made aware of environmental offences. At first, he made a bureaucratic representation – *what ought to be*, then during the interview, he adumbrated the practice – *what really is*. It came out that in practice; the conservation guard seeks the verdict of the VIDCO first, before he involves AREX or EMA officers. “The VIDCO assess the offence and its gravity then decides whether to solve it as a village or to involve AREX,”⁵⁷ It is not clear whether the conservation guard should by-pass the committee or involves it as a matter of protocol. What influence should be wielded by the VIDCO in so far as punishing environmental culprits is concerned? Such a question is relevant on account of the current practice: the conservation guard revealed that the VIDCO might consider inter-personal local relations and solve environmental infringement in the most locally appropriate way. Whilst this could present a cheaper way of conserving and managing the environment, it often results in sub-optimal environmental institutions where culprits are not punished in ways commensurate with the gravity of their offences thus reducing the disincentive for environmental degradation. Thus environmental precepts are always refracted through reinterpretation when they reach the local context. From the summit of the macro level, down towards the grassroots, laws are tailor-made to suit local conditions that are characterized by terraces of social relations of affection and power. An environmental Agency Officer⁵⁸ interviewed, while accepting that unspecified relationship between the conservation guard and the VIDCO is likely to model sub-optimal behaviors, pointed out this critique is not unique to environmental committees.

⁵⁷ Mr. Chindondo, 21 September 2006, Enterprise

⁵⁸ Mrs Chabva, Environmental Management Agency Officer, 13 November 2006, Harare. The Officer also said the regulations governing alluvial gold panning were flouted in a more similar same manner

Similarly, there were no existing associational relationships between the conservation guard and the Water Committees in Chabwino. The village conservation guard's remit of roles places him in a position in which he affects water use and practice decisions. A case in point is involves the Conservation Guard of Chabwino area assisted in nipping budding popular market gardening along Munenga's riverbanks. The culprits were using water that was not permitted although they invoked their role in the '*jambanja*' as giving them rights of abstraction. Mr. Chindondo filed a report that he first submitted to the VIDCO. The VIDCO agreed that the intervention of AREX should be sought. AREX promised to have a look themselves but they never gave feed back. When the environmental Guard performs his roles in the village, he appears to be treading on the role of water institutions.

4.4.2 Institutional Interaction within the Catchment Council

A Catchment Management Master Plan could have clarified land and water use in Mazowe but also roles of institutions in implementing such a plan. In Mazowe Catchment the absence of this Catchment Plan has had far-reaching effects on the nature of interaction between institutions. Discussing the institutional configuration within the Sub-Catchment and the Catchment Councils, a ZINWA official disclosed that that there were no specified roles for the various stakeholder institutions. "The underlying assumption," he said, "Is that the stakeholders have a stake in water management and could contribute meaningfully in various deliberations in the Council meetings."⁵⁹

Catchment stakeholder decision making – an indispensable ingredient of IWRM is thus built on assumptions. The relationships between institutions involved in decision making within the Councils is best characterized by obfuscation: it is not clear to ZINWA bureaucrats what WUBs, for instance, would expect from AREX, EMA, Environmental Management Committees, traditional leadership and others.

In the absence of a master catchment land and water management plan and role expectations between stakeholder institutions, there is virtually no compulsion of duty

⁵⁹ ZINWA Official Number 2, 7 December 2006, Harare

among the institutions involved in water resources management. Consequently, stakeholder catchment management is fraught with non-participatory behaviors that are retrogressive to the implementation of integrated water resources management principles. Stakeholders that include AREX, Environmental Management Agency (EMA) and Environmental Committees failed to attend the majority of Mazowe Catchment Council meetings in 2006.

It is this lack of specified roles and expectations that translates into a deficiency of defined accountabilities in catchment management. Without specifications of role expectations it has been virtually difficult for the Chairperson of the Nyagui Sub-Catchment Council to compel participatory behaviors among the stakeholder representatives accountable. “We invite them, but they don’t come,”⁶⁰ he lamented. According to the Chairperson, stakeholders are invited but absent themselves usually without apology.

In examining the relationship between ZINWA secretariat and the Catchment Council, the findings of this study are consistent with earlier findings (Chikozho, 2001; Latham, 2002). Lines of accountability as well as specified mandates between the Catchment Council and ZINWA secretariat have been obscure since inception of the water reforms. The Case Study below is based on the proceedings of a Catchment Council meeting held in Harare.

Case Study 4, 6⁶¹ *Faulty Representation and Contested Authority*

The round of Annual General Meetings of the Sub-Catchment Councils, the annual platform for elections had failed to materialize. The ZINWA officials acting in the capacity of returning officers had done their part: seeing to it that licit elections were held according to Statutory Instrument 47 of 2000. At most Sub-Catchment Annual General Meetings, an officer read out the provisions of the Statutory Instrument particularly Section 5 which enunciate the tenure of office of the Sub-Catchment Councilors. The Section stipulates the maximum possible term of the Sub-Catchment Councilors as three years. Furthermore, every third of the Council should vacate office by lot annually, starting right in the first year of the inauguration of the council. In sharp contrast to statutory imperatives, about 80 percent of the Councilors have been in the Sub-Catchment Council for more than six years. The 2006 Sub-Catchment Council Annual General Meetings - the platform for Council elections - were not successful. In Nyagui, members simply absented themselves. In the other nine Sub-Catchments, where members were

⁶⁰ Nyagui Sub-Catchment Council Chairperson, 28 November 2006, Harare

⁶¹ The Case Study is revisited on the discussion on representation

present the election of new members was hampered by Councilors who resisted stepping down. One ZINWA official acting in the capacity of the returning officer wielded power to dissolve most of the Sub-Catchment Councils on the basis that the majority of the Councilors had overstayed their tenure. He dissolved all the committees for which a quorum was present. All the dissolved Councilors sought to reinstate themselves and in line with their intentions, they attended the Catchment Council Annual General Meeting in the capacity of lawful Councilors. The ZINWA official who had acted in the capacity of returning officer, as usual was present in Catchment Council Annual General Meeting held late on the 28th November in Harare. The flopped elections had been postponed indefinitely pending availability of funds, at the request and as per order of the Chairperson of the Council. At the Catchment AGM, the 'dissolved' members of the Council were present to elect their Executive Committee comprising a chairperson and his deputy. During the meeting, and before the elections, languages employed by the Councilors, particularly the Chairperson were uttered in ways that portray the officers as puppets of the Council who should play to the tune of the Councilors. At one moment, he said, "Are you really aware that we are your employers. You can lose your employ if you fail to understand." Again at some moment he hinted that, "And if you fail to understand, you are deemed to be MDC." Two executives from the Minister's office, who were present in the meeting, excused themselves early. Just before they went, the councilors sought endorsement of their status as lawful and regular representatives by challenging Section 5 of the Statutory Instrument. The response of one of the executives was to reiterate the statutory position: that if after three years none of the Councilors have not excused themselves the whole Council should be dissolved.

The case study above suggest that the relationship between the Catchment Council and the ZINWA secretariat staff is characterized by some subtle forms of contest in which either part seeks to stamp authority emanating from different sources of legitimacy. ZINWA bureaucrats' behavior in as far as elections are concerned does have a statutory basis. In the three years after the inauguration, a third of the councilors should vacate office by lot every year. By this precept, almost all the councilors had overstayed their term. In sharp contrast, key members of the Council were asserting themselves as privileged employers who can hire and fire the ZINWA officials. These assertions were more often made in the form of less official communicative strategies: the calculated languages and parlance during various meetings. At Mazowe Catchment AGM, languages akin to ZANU PF master rhetoric such as 'the wishes of the people who elected me,' and 'the power of the people bestowed in me' became jingle of the proceedings. Such rhetoric appears to be more or less monothetic to those employed during the liberation struggle. In fact, councilors likened themselves to the President of the Republic of Zimbabwe, who, they said, despite calls that he has overstayed still delivers. Despite the fact that the ZINWA

officials, particularly the one guilty of reading out the Statutory Instrument are experienced middle-aged professionals, they were addressed as ‘Boys or Lads.’⁶² During the meeting, a Councilor expressed his misgiving towards the Official for having declared the Sub-Catchment Council dissolved. He said, “Mr. Chairperson, Sir, it’s not that I am power-hungry but the way in which this lad presents himself leaves a lot to be desired.”⁶³ The Chairperson then ordered the AGMs to be postponed indefinitely pending availability of funding.

Linguistics, and parlance; the ensemble of verbal expression, is a conduit of relative power that is often used as a potent technology affecting perceptions of both symbolic and manifest power wielded by the communicators. In the contexts in which they were employed, linguistics, it appears, affected the ‘atmospherics’ of the context thereby indirectly influencing the complexion of dialogue. The opinion of one of the officials was that languages employed by the Councilors were derogatory and designed to mollify his efforts to implement the dictates of Water Legislation. The communicative acts played by the Councilors are not only a surrogate of lack of defined specifications of expectations and accountabilities, but also a pointer of obfuscation prevailing in water management. These languages, it should be reiterated, also portrayed deep-seated absence of lines of accountability in which both the Councilors and the Council appear to be accountable to none other than themselves. They successfully challenged the legality of their dissolution on the grounds that water users had confidence in their leadership.

In consequence, the contribution of the Councils to water resources management lack any form of peer review. “As ZINWA we can’t tell them to improve nor can we pinpoint grey areas within their work”⁶⁴, observed a ZINWA Official. Such official discourse adumbrated by the bureaucrat was rationally elected in order to avoid further friction between ZINWA and the Councilors. Far from engendering sustainable user participation – which is the goal of IWRM – interaction between ZINWA and Mazowe Catchment

⁶² All Councilors addressed ZINWA officials by the Shona noun ‘*Vakomana*’

⁶³ Kaerezi representative, 26 September, 2006, Harare

⁶⁴ ZINWA Official Number 2, 18 December 2006, Harare

Council is fraught with an unsustainable institutionalization of sub-optimality. In practice, there is no compulsion of duty on the party of the Councilors in Mazowe Catchment.

4.4.3 Associational Mechanisms, Representation

4.4.3.1 Associational Mechanisms

The section *ut supra* has demonstrated that institutions involved in water resources management are not only multiple but are also disparate and discordant. This suggests that in practice there is currently less integration. Yet coordinated management of land, water and other related resources require that governments commit themselves to more sectoral integration than is currently the case (Koudstaal et al, 1992). In practice, sectoral integration is achievable where linkages or associational mechanisms between various bureaucracies, local level committees, traditional leaderships and other institutions are in place. Put differently, the modes of interaction among different institutions involved in the management of various natural resources sectors need to be effectively defined in some way.

Within IWRM discourse, stakeholder participation could provide such associational mechanisms if it is operationalised.

There was hype among the architects of Water Resources Management in Zimbabwe about the potency of stakeholder participation. Stakeholder participation, it is strongly held, could provide a more reliable associational mechanism. For the greater part, however, stakeholder participation has remained not only cosmetic but also conceptual. Policy literature in water resources management in Zimbabwe is dense with the inference that stakeholder representation would bring together numerous disparate institutions in water resources management that could synergistically moot and implement decisions on the management and development of land, water and other related resources (Zimbabwe Government, Undated).

In spite of such inferences, this study finds that in Zimbabwe stakeholder participation continues to be based on a yet to be tested putative quintet of assumptions. Firstly, it is assumed that there exist stakeholders that can have a common and less evanescent ‘stake’ in some issues around the management and development of land, water and related resources. Secondly, there is an inherent unquestioned assumption that treats the different stakeholder institutions as graduated mature groups that have the capability to delegate their representative to the Water user Boards and the Councils. Thirdly, it has been assumed that the stakeholder group is not only able to specify their expectations to the representative, but even to hold the representative accountable on the basis of these specified expectations and fourthly, it is also assumed that the representative will be downward accountable to his constituency or stakeholder institution. Lastly, stakeholder institutions have assumedly been regarded as graduated such that they can handle intra-group interactions in ways that will not destroy group synergy, WRM goals and programs.

Notwithstanding this apparent lack of models informed by empirical evidence, in Zimbabwe there was a significant acknowledgement of the indispensability of the participation of interest groups within the Water Resources Management Strategy (Zimbabwe Government, not dated). What remains cause for, and the pith of controversy, however, is the manner in which the ‘stakeholders’ were inaugurated. Official understanding of stakeholder participation is guided by legislation. Statutory Instrument 47 of 2000 Section 2 defines a “stakeholder”⁶⁵ and proceeds to list the categories of stakeholders including resettlement farmers, communal farmers, and urban authorities. Room was given to include other stakeholder groups “the Sub-Catchment Council may *identify*⁶⁶.” In this order of thinking, Water Resources management Strategy officials, it appears, had preset categories of these stakeholders when they identified them. Latham (2002:29) observed that:

⁶⁵ According to Statutory Instrument 47, Water (Sub-Catchment Councils) regulations of 2000 a “Stakeholder means any person residing within an area of jurisdiction of a Sub-Catchment who has an interest in water resources.”

⁶⁶ Italics my emphasis

“Stakeholder groups identified by officials from WRMS and the Ministry were advised to be present in order to vote for water councilors. Significantly there was no previous consultation as to who were to be considered stakeholders.”

For instance, Latham further notes that at the formation of Lower Manyame Sub-Catchment, the stakeholder representation was as follows: Large Scale Commercial Farmers, Indigenous Large Commercial Farmers, Small-Scale Commercial Farmers, Industry and Commerce, Local Government, Large Scale Miners and Small-Scale Miners.

Identification of stakeholders presumed the existence of collective identities and shared interests. This presumption, it bears emphasis, was not based on any observed patterns of collective action among identified stakeholders. Water Resources Management Strategy practitioners did not only fail to anchor their implementation on rigorous evidence of collective action. They never made explicit the principles that guided the identification of stakeholders. Yet literature on collective action and shared struggles is dense with suggestions that denote shared interests as elusive social constructs: collective shared interests are mustered and emerge as more of a product of lasting shared experience in a definitive geographical and social space (Bourdieu, 1990) in which people engage in a collective communion focused at constantly confronting specific limit-acts (Freire, 1972). Evidence from Mazowe tends to illuminate the thinking that interest groups may not have the permanence assumed in water legislation. As soon as collective interests disaggregate, there can be no stakeholder grouping. In the Catchment Councils, representation is still premised on stakeholder categories identified in the pre-fast track phase. Although, on the ground, ‘resettlement farmers’ could have been an interest grouping in previous temporalities, it may constitute a flaw to treat them as a stakeholder group after the fast track land reform. Categorization of stakeholders as ‘communal farmers’ and ‘resettlement farmers’, evidence from Mubvinzi suggests, is more theoretical and often lacks practical resonance. The case study below illustrates that shared interests emerge out of shared struggles for access to water resources. By this observation, the categorization of some stakeholders as ‘resettlement farmers’ is confuted. It also suggests that contrary to the

thinking that these resettlement farmers have a common stake in water, they have sometimes, a competitive stake in water issues.

Case Study 4, 7 *Competitive Stake in Water*

A1 farmers of Chabwino Village and A2 farmers occupying a section of Mkwene Farm share water in Chabwino Dam. These groups of farmers border with a larger farm belonging to an Army General who has also benefited from the fast track land reform. The Army General's farm has three dams from which he draws water. Partly due to political influence and his prominence in the Army, the General inherited sound irrigation infrastructure and commenced irrigated agriculture earlier than the A1 and A2 farmers. It had become custom, especially during the chaotic days of the land reform when most A1 and A2 farmers in the vicinity of Chabwino Dam had no irrigation pipes, that the General accessed the bulk of the water from Chabwino. An A2 farmer interviewed⁶⁷ revealed that the General grew hundreds of hectares of wheat and has been taking advantage of the lack of irrigation infrastructure among the smaller farmers. As the '*jambanja*' normalized with more and more farmers linking their plots with irrigation, competition over water from Chabwino Dam increased. It came out that at first the General wanted to exclude the smaller farmers on the basis that they had little know-how on irrigation and may negatively affect the country's food security if left to access water. A1 farmers interviewed were concerned about equity issues salient in the General's machinations. It was revealed that the General was employing a strategy in which he used water from Chabwino first while he reserved his dams. Because his farm is large and the three dams fall within the precinct of his farm, the General knew full well that very few or even none of the smaller farmers would be able to access water in his three dams. The farmers are aware that they could access water from his three dams but complain that the dams were situated too far from their fields and therefore they would be comfortable using 'their' source. When the competition assumed an exclusionary complexion and the smaller farmers realized the intentions of the General to exclude them, they formed a united front in which they confronted the 'big brother'. ZINWA officials were called in to assist in reaching a solution. ZINWA officials emphasized the principles of equity and fairness in accessing water. The 'big brother' Army General is now drawing water from the three dams within his farm.

Water interests are not only competitive but also exclusionary, the case study above illustrates. Due to scarcity of water resources, aquatic relations of access are configured in such a way that access to water by one stakeholder automatically precludes the other stakeholder. Commercial farmers compete with smallholders. Villagized resettlement farmers (A 1) and commercial plot holders (A 2) united against a large-scale commercial farmer and succeeded in excluding him from accessing – in the words of research

⁶⁷ Mr. Sarirai, 23 September 2006, Enterprise

participants – water from ‘our’ source. Their justification was that the large-scale commercial farmer had access to other sources and since they “only had access to our one source”⁶⁸ it was only fair that he be excluded. The seemingly trivial and minute lingual demarcation of “our source” signifies an underlying collective communion emerging from specific collective struggles to water access. Collective identity therefore, itself a less transient social construct, often is not an emergent of paternalistic and official taxonomies.

Whilst in a specific struggle, A1 and A2 farmers who share Chabwino Dam joined hands; there is more or less sub-constant friction between them. A2 farmers accuse the villagers of unsustainable use practices. “They have plenty of grazing land but they are mischievous. They always want to herd their herds around the dam wall,” Said Mr. Sarirai, an A2 farmer in the neighboring Mukwene. His claims had been made earlier by another A2 farmer from Mukwene. He accused A1 farmers of burning vettiva grass around the dam and destroying canals⁶⁹. When during an interview at his farm we saw A1 villagers’ cattle roaming in a section of the farm he had set aside as his cattle’s pasture, Mr. Sarirai sought the herdsman immediately. When we finally found him, the encounter invoked the fence and fines discourse reminiscent of the colonial times (Moore, 2005). He simply posed a short question that the herdsman failed to answer: “Have you ever seen our cattle in your area?”⁷⁰ Whether it was true or false, the lingual mordents of “Us” and “They” that were salient in allegations made by the two A2 farmers reflect the existence of competing interest groups.

These conflicting different interest groups of water users were not represented accordingly in Mubvinzi Water User Board. Representation was drawn from the historical River Wards in spite of the fact that fast-track land reform has ushered in a mixed bag of new farmers who are demanding representation in these stakeholder institutions. For example, where a River Ward like Munenga had a few farmers before the fast track resettlement there are

⁶⁸ Mr. Chigumbu, Chabwino / Chinyadza Village, 14 September 2006, Enterprise. The observation was also echoed by Mr. Sarirai, an A2 Farmer, on the 23rd September 2006, Enterprise

⁶⁹ Mr. Mudzingwa, 14 September 2006, Enterprise

⁷⁰ Mr. Sarirai, 23 September 2006, Enterprise. The Shona translation goes, “Ko mati mamboonawo mombe dzedu kwenyu here?”

over a hundred A1 and A2 farmers. It merits emphasis therefore, that the wisdom of ‘identifying’ or according a collective identity to people on the basis of a historical spatial space literally bundles together disparate players.

Collective consciousness and shared interests are therefore not autogenously emergent: they are by-products of shared moments of struggle for survival (Moore, 2005; Freire, 1972); the sum of aggregate individual perceived threat to survival. Actors, therefore become a conscious grouping where their survival is threatened. In this way stakeholder groups are created and sustained.

The assumption of identifying stakeholder groupings, for instance, as resettlement farmers, large-scale commercial farmers and small-scale commercial farmers and treating them as graduated institutions that can delegate and hold accountable their respective representatives becomes questionable.

Informed by evidence emerging from the study the section below shows that representation in stakeholder participation – a potential conduit for the participation of the numerous local level water users – is fraught with methodological and financial problems.

4.4.3.2 Representation in Stakeholder Participation

Lacking a methodological compass, it is observed, the implementers of water reforms have substituted participation for representation. Their genre of participation could have been a better conduit for mustering local voices into decision making. A bureaucratic failure to supervise licit elections at all levels of management coupled with democratic immaturity among water users waters the democratic decentralization spirit [Case Study 4, 6]. Elections are held at the Sub-Catchment level upwards.

There is an A1 farmer co-opted into the SCC to represent the A1 farmers of Svisva Village. The impression gleaned from in-depth interviews reflects that some key members of the

VIDCO including the village head were not happy with his representation. “He is not active in the village cell and other village platforms. We want someone who has won our confidence, someone whom we know and someone we can hold accountable”⁷¹ The SCC chairperson recalled that the representative in question was not elected. “He is ‘holding the place’ for a substantive representative, until elections are held”⁷², he remarked. The current representative is a ‘placeholder’. He is not legitimate in eyes of the VIDCO of his constituency.

Although it is true that he was co-opted on more temporary basis, it is this ‘place-holding’ that throws the whole idea of stakeholder participation and representation into doubt and question. Even when an election is purportedly held at grassroots levels, the protocol lacks supervisory and monitoring mechanisms. A candidate for the Sub-Catchment is usually required to produce minutes of the meeting held by his stakeholder group evincing that he, indeed has been nominated and seconded to represent the constituency he purports to be standing for. The whole practice of representation is built on the assumptions that stakeholder groups with a collective identity and a shared interest in water have capability to hold elections and elect their representative. This assumption may hold true in other contexts. In resettlement areas, however, fast-track resettlement struggles have molded multiple authoritarian and militant identities (Chaumba, et al, 2003) whose disposition is not in tandem with the democratic dispensation assumed in water management. It is not surprising that to some degree, Water Councilors in Mazowe often represent personal goals of self-aggrandizement. Evidence from Case Study 4, 6 is illustrative. Sub-Catchment and Catchment Councilors in Mazowe Catchment had overstayed their term but they still reinstated themselves in spite of legislative requirements to step down and give way for new leadership. This unilateral reinstatement was not without excuses. Raised raised Councilors who reinstated themselves were twofold: (i) that their constituencies had confidence in them, despite contradicting the legislation; and (ii) that there were no suitable people to take over. During Mazowe Catchment Annual General Meeting, the incumbent

⁷¹ Mai Nyika, Nyandoro Village, 14 September 2006, Enterprise

⁷² Nyagui Sub-Catchment Council Chairperson, 26 September 2006, Harare

chairperson warned that “there are a very few people with interest and ability to participate in water issues. You shouldn’t dissolve the Sub-Catchment Councils.”⁷³

Whilst it could be true that some of the Councilors whose tenure had expired could still be commanding confidence from their respective electorate, the pith of the story is that their extended stay in office is not in tandem with legislative requirements. What bears highlighting, however, is that these excuses are not unique to the Councils: they semblably mirror the usual rhetoric employed by power-hungry politicians within African democracies. Situated micro practices (Moore, 2005) embedded in definitive temporalities (Bourdieu, 1990); local struggles and constructions, are not so divorced from the larger picture; the regional, national and sometimes, the global (Keeley and Scoones, 2003). Participatory democracy assumed by the water reforms thus appears to be facing challenges of certain practices emanating from within the larger institutional environment.

That supervising elections at levels lower than the sub-catchment has not been part of Catchment management activities is understandable given the lack of resources and hyperinflation being experienced by most organizations in Zimbabwe. It also exposes ZINWA’s reluctance to invest in processes. Such unwillingness is irrationally matched by ZINWA’s expectation to make use of outputs. Catchment planning is therefore less viewed through an input-process-output lens in which it would become imperative that outputs envisaged are proportional to inputs devoted into the process. The cradle of this investitive phobia lies; it appears, in the inception phase of the water reforms. Mature and graduated Stakeholders were to be identified, and what is more; these assumedly mature stakeholders could provide representatives into the councils thus making stakeholder participation an inexpensive reality. Room was provided through legislation, to identify even more stakeholders if it was deemed necessary by the Councils. From this optic and as already submitted, the maturity of stakeholders is assumed and never questioned. This assumption could have been true before the fast track land reform when seasoned white irrigators were in place. With the advent of the fast track land reform, the assumption should be questioned

⁷³ Mazowe Catchment Councilor, 26 September 2006, Harare

even more because a different cast of water users was ushered in through resettlement. ZINWA can only neglect the inputs and processes at the expense of efficiency and sustainability.

It is equally true that if ZINWA are not interested in in-putting into the processes then they might as well do with sub-optimal institutions and poor outputs. This, however, deflects the goal of sustainability enshrined within water legislation in ways that affect the operations of ZINWA. Without robust local level institutions, it has been difficult to follow-up on bad debtors. In this light, a suggestion was made at the Catchment Council AGM for Councilors to assist in debt collection. However, the Councilors are still highly situated to be effective in this vital role. Assuming that they were correctly placed to assist in debt recovery, another crunch would be to craft incentives that would interest their participation.

In Mazowe Cathment, the dearth of institutional harmony at lower and middle levels, is perceived as a lack of awareness. This bureaucratic neglect of the lower stratum does have counterproductive effects on the whole concept of integrated water resources management. It is within the lower stratum that water users exist. It is within this level that desirable aquatic behaviors - water use practices and management behaviors - could be modeled through the medium of harmonized and more stable institutions. Whilst it is true that awareness needs to be engendered, it can only be effective if it addresses the dearth of institutional harmony and downward accountabilities currently existing at the local level.

The election process could have been an effective linking mechanism on account of two reasons. Firstly, where it is effectively implemented, it is usually a proxy of the existence of, but also the maturity of a stakeholder grouping. Secondly, it ensures both vertical linkages and downward accountability. In other terms, the election process signifies the existence of mature interest groups that have in-built accountability mechanisms. Such stakeholders are able to invoke, for instance, a vote of no confidence on the part of the stakeholder delegation if specified expectations are not met. Where representation processes are foregone, it is asserted, a scenario of stakeholder illusion that is characterized by existence of surrogate 'place holder' participation as opposed to stakeholder

participation often obtains. Outputs and outcomes emerge from processes. In water resources management, therefore, there is no substitute for processes.

Using the Case of Enterprise Farmers Association, the section below examines sectoral and institutional linkages from a historical perspective.

4. 5.0 Temporal Institutional Linkages: Enterprise Farming Area

In the first chapter, access to water was conceptualized in more broad terms, following Ribot and Peluso's (2001) definition of access as the ability to derive benefits from natural resource endowments. To restate, access in this thesis, water access refers to users' ability and capability to making beneficial use of water, thus realizing through adding value. From an aquatic perspective, beneficial use of water – a theme that first underpinned the riparian doctrine – still constitutes the essence of the new water legislation. The role of institutions in enhancing access is illustrated in the case study below. Evidence suggests that the fast track land reform could have destroyed sectoral and temporal linkages between the pre and post fast track water institutions.

Case Study 4, 8 *Enterprise Farmers Association*

The Enterprise Farmers Association was a branch of the then Commercial Farmers Union comprising over 55 white commercial farmers. Evidence from Enterprise Farmers Association (EFA) minutes of meetings⁷⁴ illustrates that there were numerous committees with diverse mandates within this association. The committees played roles more akin to facilitation of farmer access to various resource systems through the provision of accurate information, among other things. Committees included the Zimbabwe Tobacco Association (ZTA), Mubvinzi Water User Board, Agricultural Finance Corporation, Finances Committee, Association of Dairy Farmers, ZCPA for the control of quelea birds, COPA for the legumes, Association of Dairy Farmers (ADF) for milk production, the Cereals Growers and Producers Association (CGPA) Cattle and Beef Committee (CPA) and ALB for labor and security.

⁷⁴ Minutes of the Meeting of the Enterprise Farmers Association held on 1st July 1998 at Enterprise Country Club
Minutes of the Meeting of the Enterprise Farmers Association held on 2nd September 1998 at Enterprise Country Club

The numerous committees within the EFA provided specialized information on the basis of which farmers made accurate decisions. What emerges is a picture where information and solutions to problems were centrally provided. This does not reveal much. A member of the EFA made beneficial use of water in that, depending on his needs, he had timely information on every crop he intended to plant. This information included appropriate and high yielding varieties, expected cost per mega/Kg as well as the yield, water requirements, local and international markets. In addition, he knew that his crop would be secure as there was a committee in place for security issues. If the farmer wanted to grow wheat he would not be worried about quelea birds because the Association had a relevant committee in place for that.

When the Water Resources Management Strategists introduced the Catchment Councils, the idea was thus not new. In fact, the critics of the then water policy had, among the things they loathed, been true in pointing out that the institutional set-up then was racially exclusive. These post-colonial critics, carried away in the hype of negative criticism that was in vogue then, never spared a moment to look beyond this racial exclusivity of the institutional set-up. The Catchment Councils and the Sub-Catchment Councils are merely consanguine members of the then institutional set-up, at least in essence. This explains why it has been easy for the white commercial farmers to adapt to the water reforms in the late 1990s.

The Sub-Catchment Council is analogous to the Association in many respects. To begin with, the Association was a conglomeration of many water and land users with various numerous leaderships that worked on specified remit of precinct for the good of the users. Unlike the Councils, the stake and role (s) of each committee within the Association were explicitly known. For instance, it was known that the Mubvinzi Water User Board's mandate was to ensure that water is harvested in corresponding proportions to the water rights commitments. The Zimbabwe Tobacco Association had a stake in tobacco production and sales in the country. In much the same way the Association of Dairy farmers had vested interests in ensuring that quality milk is not only produced by the farmers, but also that it fetches reasonably attractive prices on the market. In this vein, and

because the committees had a vested stake in delivering their remit of roles, they were involved in objectively seeking useful information about both local and international markets as well as assisting in solving logistical problems for farmers. Just about the time when this rich culture of collective arrangements was being transmitted into water resources management, particularly in the Councils, a vicissitudinous fast track land resettlement, a dark cloud that had long lingered in the horizon precipitated. Subsequently and effectively, this meant that the wealth of institutional linkages sustained over decades of collective action could only have been evanescent. The quagmire in which the Councils are fixed today is partly due to the absence of even the lowest modicum of institutional sub-continuity due to the revolutionary nature of the fast track land reform. Revolution shattered the path of institutional change and adaptation by unleashing new hitherto unknown Acts, acts and actors. There has been therefore, a lack of institutional temporal linkages. Quintessentially, it is the lack of specialization of roles and specifications of accountabilities that marks the variability of the catchment councils.

Objective 3 sought to analyze the incentives and sanctions for water user participation at various levels of water management. In this respect, the section below presents and discusses evidence gathered from fieldwork.

4.6 Incentives and Sanctions

There is no diversity in the current regime of incentives available for behavior modeling for water user participation within Mazowe Catchment. The single and most popular incentive is the sitting allowance paid to Catchment and Sub-Catchment Councilors for participating in catchment meetings.

The Catchment Accountant could have known the right buttons to press when she presented her budget for adoption by the council. She wrote as after-notes of her 2007 Mazowe Catchment Council Budget:

If the Sub-Catchment levy is raised to \$255, 00 this will see the Catchment Council Collecting \$63 750 000.00 an amount that will sustain its operations, leaving it with a surplus of \$3 441 700.00 and this will enable the Sub-Catchment and the Catchment Councils to adjust the allowances accordingly as the year progress considering the hyper-inflationary environment we are currently in⁷⁵.

The proposed Budget did ensure that something for the Councilors was in place but it placed conditionalities around the much needed allowances: it paired this with the need to increase the Sub-Catchment levy. Assured of allowances that would be adjusted commensurate with the ‘hyper-inflationary environment we are currently in,’ the Councilors had every reason to insist that the Sub-Catchment levy be increased. However, it is this pairing and sequencing of incentives that in general practice lack within Mazowe Catchment management. Although the sitting allowance is predictive in that Councilors know beforehand how much they would get and this could model some participatory behaviors, the allowance is not paired with other behavior modes beyond ‘sitting’ in the meetings. Whereas, the sitting allowance is basically a compensation of time lost during council business, granted that it is the most popular incentive, it needs to be paired and sequenced with other modes of behaviors that yield participatory and productive water resources management outputs.

The discussion that follows the case study highlights that the nature and practice of incentivisation in Mazowe Catchment is flawed on account of a handful observations.

Case Study 4.9 *The Sitting Allowance*

On the day of the inconsequential Nyagui Sub-Catchment Council – the 8th of September 2006, the Catchment Officials had made an oversight: the cheque for the Sub-Catchment Council sitting allowances had not been cashed. They tried a couple of places in town where the Cheque could have been cashed but to no avail. Dr. Gono, the Reserve Bank Governor had put stringent rules governing cash transfer and the unwillingness expressed by the financial institutions to cash the cheque on the same day could be understood. ZINWA officials discussed among themselves for some time before the researcher chipped in: “Why can’t we just go

⁷⁵ Proposed Mazowe Catchment 2007 Budget presented at the AGM, 28 Novemeber, 2006, Harare

and tell the Councilors that the Cheque could not be cashed?" The researcher asked. "That can never be done. They will never believe you. In fact all of them would opt to spend the night in Harare until allowances are processed, then they will claim even more." observed the driver. The last attempt was Manyame Catchment, their sister department. Again, nothing positive materialized. Way after 1000hrs, the Officials decided to go and start the meeting while one of them processed the cheque. Fortunately, for the Cheque, only the Chairperson and Marondera town Council representatives were in attendance.

Case 4.9 depicts a scenario in which officials could have chosen to get to the meeting venue early and inform the Councilors that the cheque for their allowances was being processed. Or they could have sought the allowances first, even if it meant delaying the meeting. They rationally elected the second option. In Mazowe Catchment the 'sitting allowance' represents the most popular incentive modeling the behavior of user participation in water management issues. In the light of the bureaucrats' delay in cashing the cheque such an incident could have been understood by the Councilors and the Officials could have heuristically elected the first option in a different scenario.

Analytical questions that guided inquiry are restated for the purpose of discussion: What are the specific objectives of the allowances? Or which specific water behaviors are being modeled and reinforced by the sitting allowances? Are these behaviors healthy for sustainable Catchment management? Official discourse on the objectives of the sitting allowances suggests that they are provided first to cover the traveling and living expenses of the councilors and secondly, to motivate them to participate and contribute to water management issues. In a nutshell, the allowances aim at motivating participatory behavior in water management.

The case study *ut supra* suggests there is something wrong with this regime of incentives. This is especially so if their temporary absence meant sacrificing council business. An interrogation of evidence revealed quite a number of problems associated with this system of incentivisation. The allowances, it appears, are not targeted to mould any model of water behaviors other than 'sitting' in Council meetings. 'Sitting allowances,' in Mazowe Catchment do have a virtually literary nuance. Councilors know full well that what they simply need to do is to be present in the meeting and they get their incentives for

that. If they get to know beforehand that the cheque with their allowances has not been signed or cashed then they cannot sit through the proceedings. Council business should stop. The current regime of incentives – the ‘sitting allowance’ – reinforces irresponsible behavior among the councilors. Although the harsh micro-economic environment may cause such behaviors, they are not in tandem with sustainability.

One key informant observed that it would be impossible to expect a rural villager to use his meager earnings for Council business without a refund⁷⁶. Whilst the observation could be true and has its own merit, temporary absence of allowances should not have halted Council business. Although this may seem idealistic, a comparison of participation of white commercial farmers with the millenarian settlers in terms of participation yields interesting findings. Evidence suggests that participation within the post fast-track water institutions is not buoyed with personal commitment. In other terms, there is a striking lack of internal motivation or drive to participate in water management issues. The official discourse as given by one of ZINWA officials’ holds that participation in water management can only be matched by personal commitment where the farmer is really into the irrigation business⁷⁷. Due to the scarce nature of water, such participation in the councils would be an assurance for access to water given that these institutions make decisions on the permits applications. In such cases, participation itself constitutes an incentive. In sharp contrast the motivation for participation in water issues in Mazowe appears to be located outside the person, in the form of external motivators.

The ‘sitting allowance’ is rewarded to the least appropriate people: like the election, it starts at a point too high to engender associational relationships of middle and local level institutions. It is rewarded to Sub-Catchment and Catchment Councils for sitting through the proceedings at this level. The Water User Board, the third tier institution nearer to the water users gets no allowance if ever they meet. One Official⁷⁸ working with the Ministry on consultancy basis attributed the non-functionality of the Mubvinzi Water User Board to this absence of incentives. Granted that the WUB exist at more a local level and is better

⁷⁶ Mr. Madziva, 25 September 2006, Harare

⁷⁷ ZINWA Officer Number 3, 18 December 2006, Harare

⁷⁸ Mr. Madziva, 25 September 2006, Harare

placed to monitor water use behaviors, compliance with permits and payments of levies and water charges, it is more rational to create incentives for participation at this level first before the SCC and the CC. To the WUB representatives who are currently struggling to break even in their farming ventures, participation in aquatic issues has become a disincentive. This in effect, does not only cut vertical linkages as already been alluded to, but also lateral linkages between the Water User Board and other local level institutions. Consequently, the local farmer is cut off and isolated. Irrigators interviewed were not aware of the existence of a Water User Board, nor were they in the know about the Chairlady of the WUB. It is a paradox then, and therefore, that ZINWA expect the isolated farmer to contribute financially to the aquatic cause when he, as shown in the foregoing section, is so isolated from the resource systems that will allow him to make beneficial use of water.

Sanctions usually mold desirable behaviors by punishing undesirable manifest behavior. Within Mazowe Catchment some sanctions that could have been effective in modeling participatory behaviors are not implemented in practice. For example, none of the Councilors of the Sub-Catchment were suspended for non-attendance of more than three meetings. While the fact that non-participatory behaviors were condoned could portray an institutionalization of sub-optimality, on the other it could be depicting dissonance between bureaucratic legislative requirements and shared norms among councilors. The later observation could be true given that sanctions work best where there is existence of shared norms. It could be that Catchment Councilors including the Chairperson do not perceive absenting oneself from Council deliberations as warranting suspension or dismissal. In the foregoing discussions on accountabilities an issue that was sticking out relates to the lack of specified accountabilities between the Catchment Council and the Catchment Manager's office. It was learnt that because these obfuscated specifications of accountability are immersed in some political power games, it was difficult to correct wrong behavior. The water reforms owe their implementation to a strong central government that addressed outstanding equity issues through the revolutionary fast-track land reform. Of importance is that the strong central government worked closely with para-military personnel: the war veterans and the militant youth brigade. Equity in the new millennium was addressed by mobilization of the militia and the peasantry reminiscent of the liberation struggle. These

personalities, it could be the case, invoke their participation in the millennium struggles as some way legitimacy for wayward behavior. By reinstating themselves after a licit dissolution of the committees, councilors tell a story about their immunity to any possible sanctions within the day to day running of Council business.

The performance of key institutions in water resources management is discussed before.

4.7.0 Institutional Performance

In the ensuing sections the performance of three institutions namely: Mubvinzi Water User Board, Nyagui Sub-Catchment and Mazowe Catchment with regards to water management is examined through sustainability lenses. Performance is looked at first, by observing the internal consistence of organizational components and secondly, by examining the ramifications of interaction patterns between each of the three institutions and its counterparts in relation to sustainability. Data for the first criterion was yielded through observation that focused on the inconsistencies between the roles specified for the institution and the actual practice, financial footing, conflict resolution mechanisms, outline of a water resources management mandate or plan and the nature of meetings conducted. With regards the second criterion, data was gathered from an in-depth analysis of the net result of the modes of interaction among these institutions.

4.7.1 Mubvinzi Water User Board

Evidence gleaned from interviews suggests that Mubvinzi Water User Board was not able to hold meetings in 2006 and 2007. On thesis, the WUB is made up of representatives from river wards that are hydrologically based. The river wards include Cherika Ward, Mondotwe Ward, Munenga Ward, Harare Ward, Mapfeni Ward, Mutenje Ward, Upper Mubvinzi, and Lower Mubvinzi. These wards, it appears, were more active from the late eighties when the 1985 River Boards Regulations came into effect to the inception of the fast track land reform. As discussed above, the chaotic fast track land reform ushered in diverse actors that are organized in new different ways. Partly due to the fact that the Water

User Board has been non-functional, it has not adapted to these new forms of organization within resettlement areas. As already observed, at a more local level, fast track A1 farmers are organized in villages, party political cells, and politico-administrative wards where white commercial farmers were organized in hydrologically based river wards and farmer syndicates.

Key informants interviewed in Mubvinzi were not aware of the existence of the Water User Board. The non-functionality of water user board partly explains various non-compliance behaviors among farmers involved in irrigation. Firstly, within the study area there were reports of farmers who used more water than they were permitted. Both ZINWA and the millenarian farmers lack hydrological measuring devices. ZINWA's hydrology department works with estimates based on the total water requirements per hectare of a given crop. For example, it is given that wheat requires 7 mega liters of water per hectare per season. Before the start of a season, farmers apply for water agreements that will stipulate their intended cropping acreage. Although agreements and permits are issued commensurate with water yield per season, due to lack of measuring devices some farmers tend to use more water thereby depriving downstream users. Secondly, absence of hydrological measuring devices has implications for revenue as well. It is very likely that farmers are using water they would not pay for.

4.7.2 Catchment Councils

Ideally, each Sub-Catchment Council should have its own secretariat and run its financial accounts. In practice, Nyagui Su-Catchment Council does not have secretariat of their own, neither do they have own financial management systems in place. Legally, the Sub-Catchment Council and not the Catchment Council can levy water charges. Following this statutory order, Mazowe Catchment does not have a financial bank account of its own. Unlike the Sub-Catchment Council that has not been able to hold their monthly meetings, Mazowe Catchment Council holds monthly meetings in Harare.

Due to lack of funding, logistical mechanisms as well as linkages with local level institutions, the Sub-Catchment Councils have not been able to satisfy most of their roles specified in the Statutory Instrument 47 of 2000. Without automobiles or local level organization, it has been virtually impossible for them to regulate and supervise permits and monitoring floors and water use in accordance with allocations specified in the permits. With regards to the collection of levies and rates, the Sub-Catchment Councils have not been of much use. The figure of the Mazowe Catchment bad debtors currently is bigger than the total of the Catchment Council 2007 Proposed Budget that has been tentatively put at \$60, 308, 300. 00⁷⁹.

4.7.3 Conflict Resolution

The Case Study below, lay part of the ground on which the discussion on the performance of the three water institutions in as far as conflict resolution is concerned is founded.

Case Study 5, 0 *Aquatic Conflicts and Resolution*

Remare Dam situated along Mutenje, a tributary to Mubvinzi River, falls within the boundaries of Mashonaland Central Governor's farm. In terms of hydrologically based boundaries, the area falls in Mutenje River Ward. Apart from the Governor, two more political heavyweights - Honorable Minister Dr. Olivia Muchena and the Provincial Administrator, Comrade Ndarukwa also access water from the same source. A fourth new resettlement farmer who is not so much of a political heavyweight also uses Remare Dam. At the inception of the winter of 2006, Muchena, of all the four, applied for the permit first. Governor Kaukonde, who has amongst his workforce, an experienced white manager, applied for water permit in time. So did the fourth water user in the area. The Provincial Administrator waited until his crop had been planted, then he approached ZINWA for a permit. Unlike A1 and the ordinary A2 farmers which are usually not more than 30 hectares, the farmers in this case crop over 200 hectares of winter wheat each. Before the fast track resettlement, a bigger chunk of the farm belonged to one Mr. Pascoe. Thus their water demand combined is too high. Partly because the PA applied for water access when he had already cropped and due to his respectable political position as the Provincial Administrator, the Council, it appears, found no reason to disapprove his application. Water is released to meet down stream demands from Remare through adjustable valves then it flows along Mutenje from the Governor's farm through Muchena's farm. Situated further downstream is the PA's farm. At first there were no water access conflicts between the players. Meanwhile,

⁷⁹ Proposed Mazowe Catchment 2007 Budget presented at the AGM, 28 November, 2006, Harare

Muchena kept on postponing repairing some leaking valves at her pick-up point in the stream. When she finally repaired her leakages, little did she know that she was igniting a conflict. Water release downstream to the PA's farm reduced drastically throwing his agrarian efforts into a dangerous risk. Ndarukwa phoned the Catchment Manager and registered his misgivings about Muchena whom he accused of precluding him from accessing water. Ndarukwa being the Provincial Administrator did not take the whole issue of access lightly. Political overtones laced the linguistics used to articulate different positions with regards to access. It became a contest of political heavyweights. The hydrologist went to make hydrological assessments. He concluded that water in Remare was over committed and increased the release by adjusting valves. To augment the yield of the Dam, the hydrologist released more water from Mt Olympus Dam, situated further upstream.

During the Catchment Meeting of the month of September, the Chairperson promised to get to the root of the problem. He requested a 'full tank to go down on to the ground and talk,' to these leaders "who behaved like immature farmers."

The case study presented above suggests that land fragmentation that came as a result of the chaotic fast track land resettlement constitute the greater part of the etiology of aquatic conflicts in these resettlement milieus. Formerly belonging to one irrigator, the land now supports more than four players. This increased the demand for water by increasing the production potential. "Each one of them wants to produce as much as possible," said a ZINWA official⁸⁰. Conflict also emanates from lack of awareness. If the PA could have applied earlier, decisions on his cropping could have benefited from knowledge of available uncommitted water and the sustainable water yields in the reservoirs.

Semblances could be discerned between the Case Study 4, 4 and the one above. In both cases there is marked non-involvement of the Water User Board, the Sub-Catchment Council and the Catchment Council in identifying the potential for conflict, employing relatively cheaper local conflict resolution mechanism and referring the case to higher order institutions. Instead what comes out most is that parties to the conflict, particularly the aggrieved seek alternative conflict resolution mechanism. Case Study 4, 4 suggests that Chabvira had to seek the involvement of Chief Chinamora. In the Case Study above, the PA had to seek the involvement of the Catchment Manager. This recourse to alternative conflict resolution mechanism tends to rubbish stakeholder institutions.

⁸⁰ ZINWA Official Number 3, 18 December 2006, Harare

Ideally, the potential for conflicts or the conflict should be identified at inception by the River Ward concerned. The River Ward should employ cheaper local conflict resolution before it seeks the involvement of the Water User Board. If the conflict has not been solved at the level of the Water User Board, the Sub-Catchment Council should come in. It is the first legal institution to be involved. If the parties to the conflict have not accepted the interventions, the Sub-Catchment Council refers the case to the Catchment Council. The Water Court is the last Court of appeal. As illustrated above, there is a chasm between the ideal and the practice. Given the varying degrees of non-functionality of the River Ward Water User Board and Sub-Catchment Council, in practice, there is more involvement of ZINWA secretariat in conflict resolution.

Due to the apparent invisibility and non-functionality of the River Wards, the Water User Board, the Sub-Catchment Council on the ground, it is not surprising that aggrieved parties sought audience of other institutions. Non-functionality also suggests that there are no mechanisms to identify potential conflict areas so as to nip them in the bud. Bureaucratic discourse about the involvement of ZINWA secretariat at the expense of stakeholder institutions is interesting. It is given that more often the conflicts involve a nomothetic component which deters Councilors. Thus, their apparent lack of conversance with the water legislation explains their non-involvement and their choice to remain in the background where they exist. At the end of the day, it is ZINWA who get to the root of the conflict and usually the Hydrology department has been more involved.

Within the Sub-Catchment and the Catchment Council there are no sub-committees responsible for specific issues of water management. In this order, there is no committee responsible for conflict resolution. This scenario brings the observation of lack of role specification that has been previously made at a slightly higher level involving stakeholder institutions to a lower level of the intra-stakeholder institution. The Councils meet as one unit to deliberate on all issues, including conflicts. It is this absence of role specification, it appears, that retards the growth of the Councils with regards to conflict resolution. Without specialization; it appears there is diffusion of role responsibility in which none of the Councilors take interest to learn for instance, the legal aspects in water management.

Official discourse on the lack of role specification tends to be founded on the lack of funding. “Councilors need money whenever they meet. By multiplying the committees, we are multiplying expenditure of money that is not there,”⁸¹ observed a ZINWA official.

Partly due to this dearth of role specification and specialization, and partly because most of the conflicts in resettlement areas have a political tint, the Catchment Council chairperson, a retired Army Brigadier and staunch ZANU PF supporter usually throws himself into the thick of the conflicts. Case 5, 0 illustrates his desire and intension to get a ‘full tank to go down on to the ground and talk,’ to these leaders “who behaved like immature farmers.” A confident politician, the Brigadier once revealed that most of the ZANU PF Ministers and senior politicians passed through his hands: “I always tell you... I actually wrote cards for them.”⁸² The Brigadier-cum-chairperson meant that he actually did the induction for these senior politicians in which he is the one who signed their party membership cards. Whilst the Chairman’s utterances radiate propagandist overtones, they, at the same time portray the power wielded by linguistics in shaping perceptions of communicators about themselves and their counterparts. The observation about the use and effects of linguistics has already been made in the foregoing sections. Partly due to these languages of grandeur and due to lack of role specifications in the Council, the Chairperson is the only member of the Catchment Council who often attends to conflicts. A quintessential question that remains salient pertains to why the Chairperson fails to delegate some of conflict resolutions involving high profile political figures? Whilst it could be that the Chairperson has little trust of the capabilities of his fellow Councilors, it could also be the case that such conflicts provide opportunities for furthering his own political and economic interests. Overall, this scenario is partly to blame for the non-involvement of the Councilors when they work at the Sub-Catchment and the Water User Board level. The prominence of the Chairperson precludes the involvement and participation of other Councilors.

⁸¹ ZINWA Official Number 3, 18 December 2006, Harare

⁸² Mazowe Catchment Council Chairperson, 28 November, 2006, Harare

The section *ut supra* suggests that the Water Councils are still at a tooting stage in which they operate more like a shell, or a computer that still needs to be programmed. They therefore fall short of being both proactive and effectively active in conflict resolution.

4.8.0 Institutional Pile-up and Sustainable Water Resources Management.

The foregoing sections have shown that institutions that influence water use and management decisions within Mazowe Catchment are multiple, disparate and discordant. In consequence, they translate into some form of institutional pile-up wherein they overcrowd the spatial and socio-political space as they seek to influence the behavior of actors within the same space. Sub-optimality is the net result of this institutional configuration. Chabvira's fate is a result of undefined specifications of mandates based roles, and direction of accountabilities between numerous grassroots institutions whose activities in water resources management are not coordinated. It is a case in which the power game involving Village Head, his VIDCO and the Chief on one side and Chabvira and the Water and Irrigation Committee meant that he was indefinitely forbidden to install his irrigation pipes pending availability of similar infrastructure for the whole village - communicates both a negation and sacrifice of economic principles. Despite the point that he had procured his irrigation infrastructure with a bank loan accessed with interests factored in at market competitive rates, his efforts were sacrificed for reasons more to do with political expediency on the part of the new traditional leadership and the VIDCO.

This subsequently leads to unsustainable water use in the economic and ecological sense. This negation of the economic efficiency factor in water resources management, it appears, paints a monotint, in which these micro agrarian acts, although they are rooted in specific spatial and temporal spaces mirror a rather magnified macro level depiction. After-notes contained in the postscript of the 2007 Mazowe Catchment Council Proposed Budget read as follows:

Please note that a total of \$60 308 300.00 will be required by the Catchment Council to meet its operational costs for the year 2007. The Catchment has capacity

to sell about 250 000 ML of water in the year under review. If the levy remains unchanged, which currently is \$35,00 per ML, the Catchment Council will only collect \$8 750 000.00. This will leave the Catchment Council with a budget deficit of \$51 558 300.00. If the Sub-Catchment levy is raised to \$255, 00 this will see the Catchment Council Collecting \$63 750 000.00 an amount that will sustain its operations, leaving it with a surplus of \$3 441 700.00 and this will enable the Sub-Catchment and the Catchment Councils to adjust the allowances accordingly as the year progress considering the hyper-inflationary environment we are currently in. Water users may feel the price is higher in the first half of the year but as the year progresses they will feel that the cost is next to nothing⁸³.

Presenting her Budget for adoption by the Council, the Accountant invoked a typical economist's *ceteris paribus* scenario in which 'if' all assumptions and other things hold constant and equal and then the Sub-Catchment levy which stood at \$35, 00 per mega liter then, will be increased to \$255, 00 per mega liter, then funds to cover operational costs will be available, leaving a surplus. On the same day, the Minister of Water and Infrastructure development had announced a sharp increase for clear domestic water. Although this gave a window of hope for the Council in that the Minister could effect an increase in the water levy in question, this was not a certain probability. ZINWA officials were asked to chip in to make permutations. Because clear water that had been adjusted in terms of the price is charged per cubic meter which amounts to six drums, the Councilors could not have made meaningful comparisons on their own, given their arithmetic backgrounds. The permutations revealed that the cost of agricultural water then was 'next to nothing'. However, there was still another bend to be negotiated: "Your facts and figures may be very correct, but when they factor in the land reform in this water equation, the proposals may not be accepted"⁸⁴, hinted the Chairperson. 'They' could have represented the policy makers or political ideologues. What is clear, however, is that 'they' are more influential than most of the actors in affecting water use behaviors and management decisions. Having seen the light of the market competitiveness of the water pricing after the permutations, the Councilors insisted that the prices were sub-economic. The Chairperson was placed in an uncompromising position in which he promised to "go up there to represent the interests of the Council." He nevertheless warned against too much expectation: "Figures don't work

⁸³ Adopted from the Mazowe Catchment Council Budget Proposal for the year 2007, presented at the Annual General Meeting of the 28th November 2006, Harare

⁸⁴ Mazowe Catchment Chairperson, 28 November, 2006, Harare

up there.” Whether or not the languages of the Chairperson were designed to inveigle Councilors to nominate and vote him back into office is not really the crux of the discussion at this juncture. His uttering does portray an auxesis in the manner and the complexities of agricultural water pricing issues in Zimbabwe. It is a complexity in which social equity imperatives, themselves a component of the trinity⁸⁵ assumed within the concept of sustainability, are laced with political ideological expediencies that in the final analysis, take precedence over economic efficiency. If the pricing is not adjusted and if water users continue to pay ‘next to nothing’ levies, the Catchment Council runs into a deficit. Thus when water users are left to pay next-to-nothing for water, such pricing is at best unsustainable on account of two reasons. Firstly, ZINWA and the Councils would not be able to sustain their operations. Secondly, a next-to-nothing price distorts the value of water thereby sending a wrong signal to water users. Water users may subsequently use water inefficiently.

To some extent, this appears to explain in part the fix in which the Councils and ZINWA find themselves in. They can not engage in processes that will increase their financial footing because they have no money in their coffers although they have 250 000 ML of water that could be committed. It could be true to attribute the lack of funding for programmatic activities to this sub-optimal pricing.

The impression gleaned from the key bureaucrats interviewed was that the work of the land committees – that of distributing land to beneficiaries – did affect water access in a number of ways. Firstly, the land allocation process did not benefit from any hydrological input. Consequently, the A1 and A2 farmers were placed in ways that make them vulnerable to conflicts. For instance, some farms were strategically allocated to cover water sources within their hectrage. Although servitudes can be applied for and even though the rights to water are *pro indiviso*, there is a likelihood of conflicts where a farmer accesses water through a competitor’s farm.

⁸⁵ A broader concept of Sustainability subsumes ecological efficiency, social equity and economic efficiency, goals that are usually antithetical.

In addition, by creating a pocket of A2 farmers in Mukwene where its boundaries are conterminous with A1 villages, the planners invoked disputes couched in spatial margins of fences reminiscent of the colonial era. The A2 farmers accuse the villagers of grazing their cattle around water sources and canals, poaching and vandalism of irrigation infrastructure. Such disputes destroy the emergence of sound associational relationships between these actors that exist in the same geographical space. This perpetuates the existence of sub-optimal institutions that results in unsustainable water use practices.

4.9.0 Multiple Identities and Salience of Ruling Party Politics

The majority of Catchment Councilors who are in the Council by virtue of having been elected from the Water User Board are ZANU PF Rural District Councilors. Although, the Chairperson of Mazowe Catchment Council represents none of the Water User Boards in Mazowe, he is also a Rural District Councilor. There is in Mazowe Catchment, a condition of multiple stakeholder identity, which tends to stunt the growth of the stake holder participation.

It is these overlaps that have cultivated the salience of ruling party politics within Mazowe Catchment. The ramifications of water shortages from the optic of the Councilors are, first and foremost, a bad image for the ruling party. Water legislation is usually reinterpreted within a ruling party perspective. From this perceptive, ZINWA officials, particularly those who are involved in hydrology bear the brand of 'having a different agenda.' During the November Catchment Council Annual General Meeting held in Harare, the Chairperson confessed, "If you fail to understand you would be viewed as MDC."⁸⁶ The relevant question is whose understanding does matter in water issues? This suggests water management as a contest of ideological imperatives and hydrological scientific reason. Often the hydrological understanding plays second fiddle. The hydrological voice is muffled as solutions to the numerous water scarcity problems are given the form of orders without any hydrological input. "You lads see to it that water flow has reached the farmers.

⁸⁶ Catchment Council Chairperson, 28 November 2006, Harare

We don't want to appear as if we have a different agenda,"⁸⁷ Said the Chairperson. This order followed deliberations that were made in the wake of misgivings expressed by a Councilor from Middle Mazowe about the unbecoming behavior of the Official who declared the Sub-Catchment Council dissolved. Fear had been expressed by the Councilor about the consequences of water shortages in the Tsambe River system given the imminence of the RDC elections.

The Sub-Catchment Councilor of Kaerezi could not have acted too irrationally when he invited 15 ZANU PF ward councilors to stand as Water User Board representatives of the local water users who, ideally should nominate and vote their representative in the Sub-Catchment Council. This event suggests a process of homogenization of institutions in the water sector in which they are becoming more and more ideologically monochromatic. It is a process in which the ruling ZANU PF party, either by design or by an autogenously independent process, is reproducing itself in the various institutions in water management. What comes out again is an auxesis of insightful interpretations on this new phenomenon, which is not only bifurcated but also antithetical. It could be a deliberate policy to yield more spheres of influence for the ruling party by ensuring its representation in these institutions at all levels. Although far fetched, this observation may hold water especially when one considers that water users in Mazowe Catchment are neatly organized in ZANU PF political party cells. Secondly, it could be that the local level actors find themselves in a position where they can manipulate the ruling party into an instrument enhancing both access to resources as well as their personal goals of self-aggrandizement (Nhira, 1994). The first insight presents the ruling party as a powerful institution marshalling the local actors - who are not sovereign authors of their own conscious will but puppets of higher order political objectives – into specific desired modes of behaviors (discipline). The second explanation presents the ruling party as a more malleable institution and the local actors as active social agents who engage in various activities and strategies designed to yield specific resources (Nhira, Ibid). In the second interpretation, people do wield influence and use the party to ensure access to various resources including power and influence. The second interpretation, from a Foucauldian perspective appears to hold water.

⁸⁷ Catchment Council Chairperson, 26 September 2006, Harare

In this analysis, power has no source; neither does it have any significance if it is not practiced (Foucault, 1979). Power, like water becomes a fugitive resource which has to be used. Power, in different temporal spaces (Moore, 2005), often defined in history as epochs (Freire, 1972) changes hands in ways akin to the swing of the pendulum. This optic, it appears, chimes with the second insight that the local actors in some definitive moments actually gather together influence with which they use to yield some forms of recognition and legitimation from the higher echelons of the party. The significance of the analytics above lies mainly in portraying water management institutions as malleable sub-entities that can be used for uses other than water management. Thus, when '*ideologics*' get more emphasis than '*hydrologics*' in water management, the goals of sustainability are often sacrificed. This point has been illustrated by the complexity of water pricing in the country.

Chapter 5

5.0 Summary, Conclusion and Recommendations

5.1 Summary

This section presents in more terse terms the major findings of the study.

From time to time, both colonial and postcolonial governments crafted institutions to regulate equity in access to land and water resources in ways that strengthened their political domination. Colonial legislation, water rights and the PDS system, the Water Court and the Department of Water Development ensured the racial domination of a commercial farming clique in irrigation alongside political domination of the white regime. In the late eighties, River Boards have been created largely in commercial areas where irrigated agriculture was sustainable. To supplement these River Boards, River Wards were created at more local levels. Even lower than the River Wards, irrigation farmers were organized in groups of farmers known as Syndicates. The then Department of Agricultural Technical and Extension Services (AGRITEX), Department of Water Department (DWD) have been working with farmers and assisting the Water Court in arriving at decisions on water rights, rulings and adjudications.

Catchment and Sub-Catchment Councils, it has been observed, were superimposed on numerous institutions: multiple committees including VIDCOs, Water and Irrigation Committees, ruling party structures. More recently, Environmental and Land Committees have been created to manage various sectors of the environment. These institutions influence water use and management practices in ways that are not only multifarious but sometimes nefarious. This institutional configuration has translated into a scenario of overlapping termini that has consequently led to institutional pile-up – a scenario whereby new institutions are established to execute mandates that have already been assumed by existing institutions.

Institutions in the realm of water resources management are characterized by a conspicuous lack of fit at all levels and scales. Because they are disparate, they lack specified associational relationships. In essence the associational relationships are characterized by a dearth of specified mandate based role expectations and direction of accountabilities. It was difficult, for instance, to find the Water User Board representatives' specific role expectations of the various stakeholder institutions such as AREX, Department of Irrigation and Local Government Councils within the setting of the Catchment Councils.

This dearth of clear expectations has translated into a paucity of evaluation and review mechanism among stakeholder institutions. As such accountability lines are also obfuscated: it is not clear whether stakeholder institutions in the Councils are accountable. This in turn, translates into lack of compulsion of duty among institutions in water resources management. In such a setting the concept of stakeholder participation becomes an illusion. Representatives of institutions therefore, at best operate as placeholders within the Catchment and Sub-Catchment Councils.

Accountability within water management institutions is complicated by the existence of a growing trend within Mazowe Catchment: multiple stakeholder identities which either overlap or identify with the ruling ZANU PF party. Consequently, issues of sustainability are relegated to the periphery as sub-optimality is rationalized and institutionalized. An important highlight was the lack of any review mechanism for monitoring and evaluating Catchment and Sub-Catchment Councils in water resources management.

What also became salient in the analysis and discussions was the dearth of diverse incentives and implementable sanctions. It was discovered that the most popular and single incentive modeling participatory behaviors was the sitting allowance which is available to Sub-Catchment and Catchment Councilors when they meet for their regular meetings. The Water User Board, the lowest third tier institution with constant communion with the water users on the ground is not eligible for the sitting allowance. For the Water User Board, it appears, participating in aquatic governance issues becomes a disincentive. The sitting allowance, it was observed, is cultivating irresponsible behaviors among the councilors. For instance, if Councilors are not assured of the sitting allowance before the meeting starts, they prefer sitting out or bunking. In Mazowe Catchment, what meets the eye more than anything else is probably the truancy played by the Councilors, particularly when it comes to leaving office at the expiry of their respective terms. As highlighted, this trend could be explained partly by the lack of specified accountability between the Catchment Manager's office and the Councilors and partly by the growing salience of ruling party politics.

It appears that institutional maturity of the stakeholders in water management is hampered by ZINWA's investitive phobia. As observed already, there is a deliberate bureaucratic negation of investing in processes involved in water management. ZINWA are reluctant to fund processes that may strengthen their financial base. Like the sitting allowance, elections start at the Sub-Catchment Council. The ramifications of this phobia are negative. Both lateral and horizontal accountability of stakeholder institutions are sacrificed.

The chaotic fast-track land reform shattered institutional temporal linkages, it has been shown. The radical land reform ushered a medley of new actors with multiple backgrounds and militant identities thereby destroying previous forms of organization. Far from encouraging local level synergies, local level irrigators in fast-track A1 schemes, it was observed, are organized in ways that are not only unique but also hinders beneficial use of water. Local level A1 water users are uniquely organized on two accounts. Firstly they fall under some form of new traditional leadership. The Village Head is appointed by the paramount chief. The criterion is less specific and more subjective, ranging from liberation war credentials, the candidate's role in the chaotic farm occupations, totemic ties and perceived maturity. Profectitious ties to the land appeared to be receiving less importance. The new traditional leader is also the Chairperson *ad infinitum* of a Village Development Committee that is voted into office by the villagers. Secondly, some forms of constitutional organization are emerging. Villages were drafting constitutions that will be the basis of governance, including water issues, in these new landscapes. Thirdly, these water users are organized in local level ZANU PF Party cells. Although the party cell is a useful institution in encouraging communion with water management issues, it does marshal water users into behaviors that chime with nationalist objectives.

5.2 Conclusion

This Chapter section provides space for a reflection of some of the theoretical issues underpinning natural resources management as well as participatory issues assumed within natural resources governance.

For quite some time now, theorists in the realm of natural resources governance; irked by the rationally selfish maximizing individuals have sought remedy from the idea that institutions can always be created to assume management functions of different sectors of the environment. This has been the typical prescription of new institutionalism. Ostrom (1990), among others, has been at the forefront of popularizing this prescription to the extent that it has no doubt, assumed the status of a panacea to all institutional problems in natural resources governance. This prescription is founded on the diagnosis of some sub-optimal rules of the game that encouraged individualistic selfish behaviors within the commons. New Institutional theorists believe that ‘credible commitments’ joined with mutual monitoring of resource use and certain rules-in-use transform these diagnosed individuals into actors who can engage in collective action for the realization of shared goals. The medicinal regime to these theorists is the bounded rationality emanating from the fusion of personal and group goals within a context defined by some design principles (Ostrom, Ibid).

The influence of new institutional thinking in natural resources management has been in providing the rationality for crafting institutions with diverse natural resources governance mandates at different times. Environmental management architects have tended to think that new institutions can always be crafted to assume different natural resources management functions. In this order of thinking, different institutions for water and land based resources have been established in different temporal spaces under various auspices.

Within Water Resources Management in Zimbabwe, the influence of the new institutional thinking is discernible in the creation of new institutions to assume new roles under integrated water resources management functions.

Further, environmental architecture has assumed that these various institutions created to assume management functions of different sectors of the environment (Nemarundwe, 2003) could be assembled at varying scales to moot and implement synergistic water decisions (Zimbabwe Government, not dated; Zimbabwe Government, 2000). In Zimbabwe and

within the SADC region countries implementing water reforms have assumed a stakeholder approach to Integrated Water Resources Management.

Whilst the theoretical prescription advanced by this study does not eschew this tendency of crafting new institutions time and again when perceived need arises, insights gained from this study suggest that the remedy of creating diverse new institutions with various natural resources management functions translate into some form of institutional pile-up in which they overcrowd the spatial and socio-political space resulting in some subtle forms of confusion of precinct, as they compete to influence the behavior of actors within the same space. Contrary to the underlying assumption guiding the rationality of creating new institutions, that each collective action arrangement, for instance, will find a comfortable niche, there are no multiple socio-political spaces. If new institutions are created without specifications of their associational relationships, including lines of accountabilities, they naturally compete for a niche within this single socio-political space.

In addition, insights generated from the friction characterizing relationships between local level Village Development Committees, Water Committees, Environmental Committees and ZANU PF party elements within various institutions tend to suggest that sound associational relationships between institutions do not emerge autogenously.

In much the same manner accountabilities are not a self-originating, spontaneous phenomenon. What emerged from the study is that accountabilities between these different institutions do not exist in a relationship of exteriority with specifications of role expectations and agreed evaluation criteria. It emerged, for instance, from the analysis that by negating this specification of accountability between the various stakeholder institutions within the Councils, and between the Councils and ZINWA, architects of the water reforms did not only obfuscate the potential for sound associational relationships but also the indispensable evaluative criteria between these disparate institutions. This partly explained the typical friction between the Catchment Councils and ZINWA and non-participatory behaviors of institutions within Integrated Water resources Management.

Stakeholder participation therefore, may not yield meaningful contribution to water management in the absence of specified associational relationships and accountabilities.

5.3.0 Recommendations

In presenting the recommendations that emerged from the study, this Chapter adopts a more succinct approach. Recommendations advanced herein correspond to two levels. Firstly, the Chapter picks up theoretical motifs on natural resources governance institutions discussed in the conclusion of the previous Chapter and propose recommendations at a more theoretical level. Secondly, recommendations correspond to a policy level. Finally areas that need more research are suggested.

5.3.1 Crafting Institutions: Prescription

Before a new institution is crafted to constrain the behaviors of individuals sharing a resource, its institutional interaction with existing institutions that have already assumed all or part of the same roles it seeks to fulfill should be specified. Institutional interaction is specified by defining and specifying the different role expectations, evaluation mechanisms and lines of accountability of each institution in relation to its counterparts in a spatial and socio-political space.

5.3.2 Enhancing Institutional Fit

Whereas propagation of IWRM concepts from global to the local contexts has been made relatively swift, partly due to availability of global funding, indigenization and implementation of these concepts in concrete local scenarios – it has been evident – requires much effort than is currently the case. This effort deficit emanates from context-specific socio-political systems wherein IWRM concepts are operationalized. More important is the manner in which colonial and postcolonial

governments resolved equity issues in access to land and water, it has been shown. In order to regulate equity and access issues in ways that strengthened the ruling governments, various institutions have been crafted. Significantly, the fast-track land reform has busted institutional temporal linkages by radically substituting white irrigators with new indigenous actors who lack synergistic forms of organization. The new water resources management institutions, it has been shown, lack harmonious associational relationships necessary for practical implementation of IWRM. The thesis has illustrated that there is, among institutions intended to facilitate implementation of IWRM principle, a dearth of specifications of mandate based roles, lines and direction of accountabilities. Lack of mandate based roles has translated into some form of cosmetic integration characterized by a dearth of compulsion of duty among institutions on the one hand and lack of evaluation criteria on the other. Whilst this candid observation finds weaknesses in the manner in which IWRM concepts are implemented, it at once raises some thorny issues within IWRM discourse. What is integration? How can it be operationalized in the various contexts wherein IWRM has been accepted? What could be the course of integration? How can it be measured? Does it fall into a continuum or gamut that corresponds to certain observable patterns?

5.3.2.1 Specifying Institutional Associational Relationships

Integration, it is shown here, could be improved if associational relationships of institutions are specified. These specifications should be based on a catchment master plan [Figure 4, 2] that details land and water use plans. Because the acceptability of the plan to participating institutions would be a pre-requisite for its implementation, formulation of the plan should be participatory. Desired outcomes, outcomes; required outputs and processes should be specified in the plan. In addition, the plan should take on board compatible stakeholder interests in order to muster participation of key institutions. Based on this plan, specifications of mandates for institutions, lines and directions of accountabilities should foster not only defined modes of institutional interaction but also compulsion of duty among

institutions. More significantly, the plan should specify an agreed evaluation criteria. Figure 2 below summarizes these recommendations.

The components of a Catchment Plan need not be perennial. So are stakeholder interests in water resources management. These variables, it should be noted affect specifications of roles, lines and directions of accountabilities whenever they shift. In this way, institutional associational relationships, or institutional modes of interactions are to some extent evanescent, depending on outcomes, inputs, processes of desired outcomes and stakeholder interests underpinning involvement of institutional

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institutions.

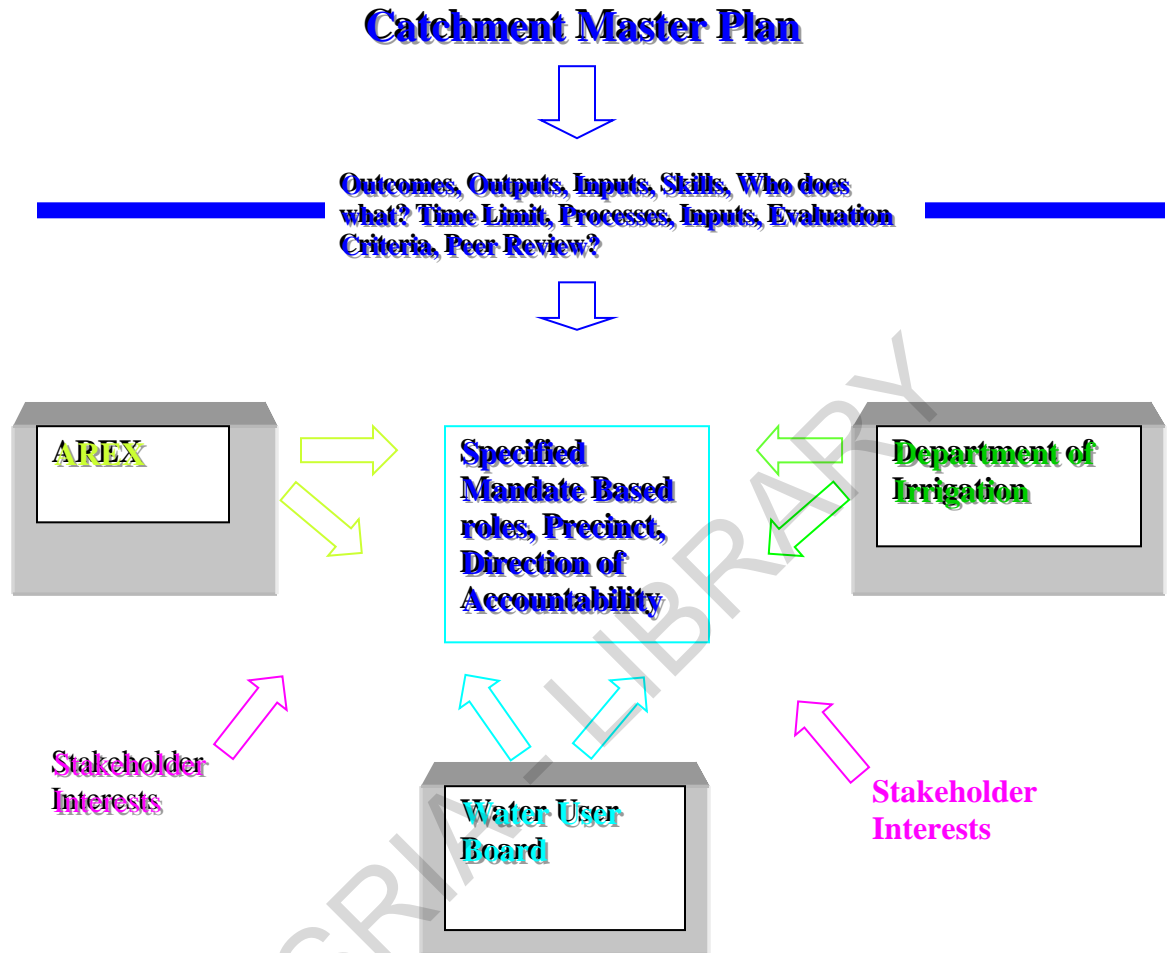


Figure 4, 2 Specifying Institutional Associational Relationships

Partly because institutional dissonance exists at all levels and also because of the dearth of accountabilities between the various institutions in water resources management – a phenomenon characterized by lack of evaluative criteria of compulsion of duty among institutions, this thesis suggests crafting a ‘big-brother’ institution at the macro level. Due to the participatory nature of catchment management, the supervisory and monitoring institution can be more acceptable if it

takes the form of a taskforce. This overarching institution may comprise representatives from Ministries, Departments, funding institutions and local organizations that are germane to water management. In order to correct the dearth of accountability and compulsion of duty, other institutions would have to be hierarchically subordinate to this institution. Such an institution should have legislative basis to allow it to enforce compulsion of duty from institutions. Koudstaal et al (Ibid) suggest that such an overarching entity could be in the form of a joint task force, working group, or coordinating committee. The overarching institution is not a strange phenomenon to water resources management: Malawi is currently putting in place such an arrangement and it would be interesting to learn how this will work.

Once in place, the overarching institution should firstly, identify areas that are relevant to water management within different Ministries, departments and organizations. Secondly, it should identify water resource commitments within these different government institutions with the view to streamline these commitments within the focus of integrated water resources management. The precinct of this institution would include specifying the roles, evaluation criteria and accountabilities of all the institutions involved in water management. In addition, it should come up with a strategy for appropriately and rationally rewarding the different actors that are involved in integrated water resources management.

Whilst it appears to suggest the creation of a new institution and sounds like more overcrowding, the rationality of the 'big-brother' institution is founded on the fact that lack of institutional harmony is replicated at all levels including the Government Ministries. In addition, and given the nature lack of accountability and compulsion of duty between the Councils and ZINWA, it calls for a higher institution to specify these associational relationships. On top of that, it would be difficult for an institution situated at lower levels to evaluate the stakeholder institutions on the basis of their specifications. Positionality of the overarching

institution therefore, does matter. This however, is not to deny the possibility that such an institution could cause more confusion and dissonance. This could be the case where its legitimacy is contested by other actors. Koudstaal et al caution that if the overarching entity would have to take power from other agencies and this could make it very unpopular with sectoral agencies. There are precautionary measures that still could be taken. Even though, as highlighted above, the overarching institution needs to have a nomothetic basis, it should still satisfy other criteria. It should not be grossly discontinuous with history and it should strike the best fit with shared norms and values that are more traditional. In addition, it should be politically acceptable. The concept of overarching institutions has proved to be efficient in Zimbabwe. A case in point is the Winter Wheat Task Force.

5.3.2.2 Building Capacity of WRM Institutions

Another approach focuses on effecting reform of institutions that are germane to water management. This approach focuses on building the capacity of these institutions through techniques akin to the Train and Visit, workshops and focus groups. Training targets sub-optimal behaviors within institutions in the context of IWRM and should be based on observed trends of undesirable behaviors. It should be participatory at all levels from content design to evaluation. Such participatory mutual sharing and learning should be able to generate role expectations of the institutions and perceived lines of accountability. This role of training could be executed by ZINWA's Public Relations Department. Whilst training should be based on active participation of various groups of people, it should be multi-disciplinary so as to address the various multifaceted issues in water resources management.

5.4.0 Incentives and Sanctions

It emerged from the study that there is lack of diverse incentives to model the desirable behaviors of different actors involved in water resources management.

- 5.4.1** There is an urgent need to craft diverse targeted incentives at all levels that are paired with specific behaviors. Granted that the Water User Boards are situated closer to the water user, therefore it is expedient to provide incentives at this level. Incentives need not be monetary only. At the WUB level, they could take the form of rebates and discounts on levies. It must be noted, however, that incentives should only be awarded to encourage and reinforce these specific behaviors and should be withdrawn as soon as the behaviors are no longer forthcoming. Where incentives are tied to measurable behaviors, for instance, the collecting of levies, it makes it easier for the purveyor of such incentives to specify to the participators through the various channels of communication why incentives are being withdrawn. The purveyor of such incentives could be ZINWA, the suggested overarching institution, or member institutions.
- 5.4.2** The success of IWRM assumed within the stakeholder approach will depend on certain persons within the various stakeholder institutions. The current practice is that these persons representing their stakeholder institutions can not be rewarded in the form of promotion, bonuses or punished through suspensions, demotions and termination of contracts – on the basis of their contribution to water management. The overarching institution suggested above should be able influence different organizational policies and cultures so that the personnel involved in water management should be rewarded by their respective institutions.
- 5.4.2.1** With respect to the Water User Boards and Sub-Catchment Councils incentives should also accrue at a level higher than the individual water user. If an incentive is paired with certain required economic behaviors such as collection of levies, then it makes sense to reward the WUB or SCC in question. The current practice in Mazowe Catchment is that there are no targets set for, to give an example, collection of water levies. SCC levies collected were pooled in one account and there was neither acknowledgement nor reward towards the ‘best’ contributors.

5.5 Role Specialization in Stakeholder Institutions

It was observed that the Water User Boards and Catchment Councils were more like *tabula rasa*. There is no existence of specialized committees to deal with specified issues in the day to day water management. In this respect the following committees are recommended:

5.5.1 Conflict Resolution Committee

Conflicts, it has been shown in the previous Chapter, can translate into unsustainable decisions being implemented. It is recommended that a conflict resolution committee be established to identify conflict potential areas and develop cheaper conflict resolution mechanism that exists at all levels, including the local level. Such committee should include the Catchment hydrologists since water related conflicts need an appreciation of hydrology.

5.5.2 Catchment Finance and Logistics Committee

The Finance and Logistics Committee will be involved, among other things, in developing ways to effectively collect levies and rates. It would also be useful in facilitating the installation of proper measuring devices, collection of information as might be used in Catchment management.

5.6 Input-Process-Out-put Planning

It was observed that there was a bureaucratic neglect of investing in processes in Catchment Management. In this light, it is recommended that planning be viewed as cyclical. Within this cyclical approach, three dependent components should be specified: inputs, process, and output. The following questions could make this recommendation less incondite.

- A) What are the outputs envisaged for a particular period?
- B) What are the inputs required to produce the envisaged outputs?

C) What are the short term and long-term processes required to produce the outputs?

It must be pointed out; however, that planning may be more feasible in stable macro and micro economic environments.

5.7 Areas for further Research

5.7.1 This study left out detailed studies of the water market, legislation and policies as institutions that affect water management decisions and use behaviors. These areas are relevant to water resources management. It is suggested that research nets be cast deeper, particularly with respect to the optimality of water pricing in Southern Africa.

5.7.2 Another governance issue that emerged from this study is the need to understand the concept of stakeholder participation in water resources management. For instance, we need to get a deeper understanding of the collective processes of identity and shared interests underpinning stakeholder groups and institutions in water resources management. There is need to understand intra-stakeholder processes and mechanisms of delegation, accountability, incentivisation, discipline and punish. It is an area that has interested this researcher – an area which he has already problematised and intends to study at a higher level.

5.7.3 Lastly, there is still need to understand why there is resistance to proper legislative water governance and how this could be dealt in ways that do not destroy what has already been built. It came out clearly that Catchment Councilors disregard legislative requirements to end their tenure of offices.

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