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## **Surges and Ebbs: National Politics and International Influence in the Formulation and Implementation of IWRM in Zimbabwe**

### **Emmanuel Manzungu**

University of Zimbabwe, Department of Soil Science and Agricultural Engineering, Harare, Zimbabwe; [emmanuelmanzungu@gmail.com](mailto:emmanuelmanzungu@gmail.com)

### **Bill Derman**

Department of Environment and Development Studies (Noragric), Norwegian University of Life Sciences, Aas, Norway; [bill.derman@nmbu.no](mailto:bill.derman@nmbu.no)

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**ABSTRACT:** In the 1990s, the Government of Zimbabwe undertook water reforms to redress racially defined inequitable access to agricultural water. This paper analyses how a water reform process, seemingly informed by a clear political economy objective, was hijacked by efforts directed at implementing Integrated Water Resources Management (IWRM). It uses the notion of policy articulation to analyse why and how IWRM 'travelled' to and in Zimbabwe and with what outcomes. The paper shows that attempts at introducing and implementing IWRM in Zimbabwe have had a chequered history. The efforts of Zimbabwe in pioneering implementation of IWRM in southern Africa, have subsequently waned, and prospects for resurrecting IWRM in its original form are low. Introduced in the 1990s when Western donors jumped on the bandwagon of the liberal economic agenda inspired by the IMF/World Bank, it declined between 2000 and 2009 due to a combination of poor economic performance, national-level politics and international isolation. In 2011 IWRM was reintroduced as the country re-engaged with the international community. The re-emergence of IWRM, however, seems to be largely rhetorical as the focus is now on fixing a crisis-ridden water sector, with a new political dispensation adding another layer of complexity. The paper concludes that the development of IWRM in Zimbabwe mirrors broader national-level socio-political processes and their complex relationship with the international community.

**KEYWORDS:** Water reform, IWRM, policy (dis)articulation, Zimbabwe

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### **INTRODUCTION**

In the 1990s, the Government of Zimbabwe (GoZ) embarked on a water reform process because of the need to redress racially defined inequitable access to agricultural water in a country in which agriculture dominates the economy. This was an enormous challenge, given 90 years of colonialism. From 1890 when Zimbabwe (then known as Rhodesia) became a British colony until it gained independence in 1980, land, water and mineral resources, and other levers of economic power, were systematically entrenched in a white minority population to the disadvantage of the black majority. The result was that, until the reforms were legislated in 1998, close to two decades after independence in 1980, 85% of the water resources of the country were still being used by 4500 white large-scale commercial farmers (Manzungu, 2001). The belated reforms culminated in the repeal of the 1976 Water Act (Rhodesia, 1976), and promulgation in 1998 of the Water Act (GoZ, 1998a) and the Zimbabwe National Water Authority (ZINWA) Act (GoZ, 1998b). The 1976 Act was a revision of the 1927 Water Act (Rhodesia, 1927), which heralded the birth of an agriculture-oriented water legislation and state control of water resources (Vincent and Manzungu, 2004).

In this paper we explore how a water reform process, seemingly informed by a clear political economy objective, was hijacked by efforts directed at implementing Integrated Water Resources Management (IWRM) as stated in the most recent (2013) water policy:

The reforms were undertaken primarily to redress the inequitable access to the country's water resources that has been enshrined into the 1976 Water Act and to embark on key principles of Integrated Water Resources (IWRM) on the basis of which the Water and ZINWA Acts were developed (GoZ, 2013a: 9).

Zimbabwe is a good test case to understand why and how IWRM 'travelled' from the North to the global South (Mehta et al., 2014). It was the first southern African country to (try) to implement IWRM (Manzungu, 2004).<sup>1</sup> The question is: given the country's political history and hydrological characteristics, was/is IWRM part of the solution to the country's water challenges? Zimbabwe is a semi-arid country with limited surface water and groundwater resources that are, to make matters worse, poorly managed because of financial, human, and material challenges (GoZ, 2013a). Its economy is water-dependent: there is a close relationship between annual rainfall and annual Gross Domestic Product (GDP) because of the importance of rainfall-dependent agricultural and hydroelectricity production to the economy, which also affects industry, mining and tourism (GoZ, 2013a). On average, agriculture uses 82% of surface water while urban and industry use 14% and mining 3% (Davis and Hirji, 2014). Throughout the colonial and post-colonial history, debates around equitable access to water between and within sectors, and between different races and, to some extent, classes, have dominated the Zimbabwean waterscape. This explains the various water reform cycles, with the present day IWRM-informed reforms being the latest (GoZ, 2013a).

A few years after the 1998 water reforms were enacted into law, questions were raised regarding the relevance of a neoliberal water reform agenda drawing on global paradigms, such as IWRM in Zimbabwe (see Manzungu, 2001, 2002). The new water law accorded a smaller role for the state in the planning and management of water resources and water financing. The expectation was that commodification of water and related services, through the application of the user pays principle, would pay for the planning and management of water resources. But the social, political and economic conditions in the country have dramatically changed since the time when the reforms were enacted. Some of the important changes, which are expanded in later sections of this article, include: transferring ownership of agricultural land from the white minority to the majority black population; a significant shrinking of the economy; increasing volatility of the political environment; and the deterioration of social conditions, such as poverty levels.

Against this backdrop it is important to examine whether IWRM was and is still relevant to Zimbabwe. This is important because the GoZ, as captured in the 2013 National Water Policy (see above), still continues to frame its water management approach along IWRM lines, epitomised by the user pays principle and realignment of water management institutions from politico-administrative (following local government structures) boundaries to hydrological ones. The Government believes the difficult conditions that prevailed in the country between 2000 and 2008 negatively affected implementation of IWRM (GoZ, 2013a). This article poses the fundamental question as to why the

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<sup>1</sup> Implementation here refers to when IWRM was explicitly stated officially as the guiding approach in water management and when steps were taken to that effect. It does not refer to when some elements of IWRM, which predated the official introduction of IWRM, were implemented. In this regard, Zimbabwe can claim to be the first southern country to implement IWRM because, although both South Africa and Zimbabwe enacted new pro-IWRM water laws in 1998, Zimbabwe proceeded to institute the enunciated principles, by for example, setting up water management institutions according to hydrological boundaries (catchment and sub-catchment councils) within a year of the enactment of the law while South Africa prevaricated and changed the number of catchment management agencies (CMAs) and only set up the first CMA in 2004, some 6 years after the enactment of the law (see Movik et al., this Issue).

implementation of IWRM was chosen as the vehicle for delivering the stated political economy objective of equitable water use, and what the prospects for its successful implementation were.

The article uses the notion of policy articulation to analyse why and how IWRM 'travelled' to and in Zimbabwe and with what outcomes. The economic and political conditions under which IWRM was formulated and implemented are highlighted, as well as how this was shaped by the IMF/World Bank-sponsored liberal economic agenda which was complemented by Western donors eager to promote IWRM (Manzungu, 2001, 2002; Derman and Manzungu, this Issue). In this article, implementation of IWRM refers to steps taken to operationalise one or more of Dublin principles or Global Water Partnership (GWP) IWRM principles. It does not suggest wholesale adoption of IWRM or IWRM principles to the letter.

### **APPROACH OF THE STUDY**

In our view, understanding why and how IWRM 'travelled' to and in Zimbabwe, or any country for that matter, is not helped by the popular definition of IWRM as the process which promotes the development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP, 2000). This popular definition of IWRM conjures up the notion of an apolitical and instrumentalist activity, and by so doing depoliticises the (political) choices that are inherent in the formulation and implementation of IWRM. Instead we prefer to refer to IWRM as a political project, to denote the politics inherent in resource management decisions made up of everyday politics, politics of policy-making, hydropolitics and global politics (Mollinga, 2001). Such a viewpoint rejects the idea of policy-making and implementation as a linear process and activity (Mollinga and Bolding, 2004). In this article we draw insights from the politics of policy-making to try and understand the IWRM journey to and in Zimbabwe (Wester, 2008; see also the Introduction to this Special Issue).

Due to the internationalisation of IWRM, we widen our scope of analysis to include international institutions that played a role in exporting IWRM to Zimbabwe, and how these interacted with national-level players. We use the notion of policy articulation to try and understand the political dynamics that were involved. Policy articulation is defined as the process by which policy actors support, modify, displace and translate a policy idea with the outcome that a policy or reform package becomes less or more real (Wester, 2008). We also talk of policy disarticulation to refer to a situation where a policy is not merely supported, modified, displaced or translated but discarded or ignored to the extent that it loses its currency in the contemporary discourse.

The evidence that will be presented in this article will show that articulation of IWRM was due to the IMF and World Bank and other Western donors, and was disarticulated because of national-level politics. We also show that it was the same actors who articulated IWRM in the first instance who came back to (try to) resuscitate it. We also discuss the agency of the various actors involved in the implementation of IWRM (see Cherlet and Venot, 2013). Consequently, we argue that, although there was influence from outside, the GoZ had some leeway to adopt and implement IWRM (see below).

This study was undertaken between 2011 and 2014, and involved a number of steps. First, we analysed the main pieces of water legislation (Water and ZINWA Act), and water policy (2013 National Water Policy) where our interest was to assess how IWRM was formulated and how it was to be implemented. We also examined related documents, namely consultancy reports of studies sponsored by the World Bank, which fed into the development of the 2013 National Water Policy.

Secondly we followed national-level political processes, which we reckoned to have had a material effect on the water reforms. Of particular importance was the entry in 1999 of a strong opposition political party on the political scene in the shape of the Movement for Democracy (MDC). It contested the 2000, 2005, 2008 and 2013 elections and posed a serious electoral challenge to the dominant party,

the Zimbabwe National African Union Patriotic Front (ZANU PF), which by itself or in alliance with another political party had ruled the country since independence in 1980.

Lastly, we interviewed and interacted with past and present key actors in the water sector, which included architects of the water reforms. Our interest was to understand the negotiations between and among the key Zimbabwean and international actors, such as the World Bank, which promoted IWRM in Zimbabwe.

### DRIVERS AND TRIGGERS OF IWRM IN ZIMBABWE

A good starting point to understand the IWRM journey in Zimbabwe is to identify what drove and triggered the water reforms in general and IWRM in particular. In this section we do so by providing an overview of water reforms from 1890, when the country was first colonised until independence in 1980, right up to the present day. Table 1 shows the major laws that regulated access to land and water resources during the colonial period. As can be seen from Table 1, there was a systematic disenfranchisement of blacks as far as access to land and water was concerned.

Due to their privileged position, white settlers actively participated in all issues pertaining to water management unlike the black population (Bolding et al., 1999). While the colonial water law provided for the Minister to appoint persons to represent black water users (Mtisi, 2011) this was more on paper than on anything else. The racist water agenda was helped by cheap finance which ensured that white settlers could install water infrastructure on their farms (Manzungu and Machiridza, 2009).

Up to 1998 when the new Water Act was enacted, the post-colonial state seemed reluctant to disturb white commercial agriculture, which formed the backbone of the country's economy. As already stated, a large proportion of developed water resources (85%) was still being used by 4500 white large-scale commercial farmers (Manzungu, 2001). Events in the land sector support this conclusion. The government, for the first ten years of independence, abided by the Lancaster House constitution,<sup>2</sup> which stipulated that for the first decade after independence land reform would proceed on a willing buyer-willing seller basis (see Hove et al., in this Issue). After the expiry of that clause the government passed the Land Acquisition Act in 1992 which provided for compulsory land acquisition, but this remained largely unimplemented.

Table 1. Major highlights of laws regulating access to land and water resources in Zimbabwe during the colonial period.

Date	Event/Activity	Objectives in relation to land and water resources
1890	Beginning of colonialism under British South African Company (BSAC) rule on behalf of the British Empire (Phimister, 1987)	Maximising profits through exploitation of the colony's natural resources, particularly mineral deposits (Manzungu and Machiridza, 2009). Mining sector accorded priority vis-à-vis allocation of land and water resources to the exclusion of indigenous blacks.
1898	Native Reserves Order	Blacks moved to arid and infertile areas in the 'Native Reserves' (Kramer, 1997) A once vibrant indigenous agriculture, which had supplied early white settlers with surplus produce, was

<sup>2</sup> This was the constitution that the liberation movements and the British Government agreed to in negotiations leading up to independence in 1980. The liberation movements had reluctantly agreed to the land clause.

		fundamentally undermined (Ranger, 1985).
1913	Water Ordinance	Provided generous riparian water rights <sup>3</sup> to owners of adjacent or overlying lands to address wrangling among white settlers on how best to allocate agricultural water. Blacks not included because they were not landowners (Vincent and Manzungu, 2004).
1920	Amendment of the 1913 Water Ordinance	Instituted the priority date system. <sup>4</sup>
1923	BSAC pulled out of the colony in 1923	Insignificant profits and loss of support among white settlers resulting in a responsible government. <sup>5</sup>
1927	Water Act	Sought to improve the Water Ordinance which could not solve water disputes and devised a system that addressed agricultural water use (Chereni, 2007).
1930	Land Apportionment Act	Act legalised racial segregation of agricultural land that had begun in the 1900s. Fertile half of the total agricultural land was reserved for the minority white population. White settlers accorded full land rights while blacks were disenfranchised.
1969	Land Tenure Act	Strict racial access to agricultural land (Palmer, 1977).
1976	Water Act	State assumes ownership of water through abolishment of generous rights of riparian landowners. In addition to the priority date system, water rights were issued in perpetuity. Agriculture enjoyed a lower status than water for mining and urban use. Basic water needs catered for through the provision of primary water rights.

But the strategy of not disturbing the white-run economy by, among other things, not undertaking significant land and water reforms could not be sustained for long, thanks to worsening economic conditions and the worst drought in living memory. While the economy had grown by 14.4% and 12.1% after the first two years after independence, a lacklustre performance characterised the next decade (ECA et al., 2013). This explains why, towards the end of the first decade of independence, the country was forced to engage with the IMF and World Bank for an economic bailout. This signalled the start of a complex relationship with these two institutions (and the major Western block countries that wield influence over them). But the immediate trigger of the water reforms was the 1991/1992 drought, the worst in the country's history, which reduced the country's GDP by 25% (Benson and Clay, 1998). These factors opened a window of opportunity for donors to bring in IWRM through a donor-funded Water

<sup>3</sup> This conferred 'reasonable use of water' to owners of adjacent or overlying lands.

<sup>4</sup> The system provided for priority of accessing water to those with senior water rights based on date of application, which further marginalised black farmers who by law could not hold water rights in their own right (Hellum and Derman, 2005).

<sup>5</sup> An all-white electorate voted to be ruled by a responsible government rather than be part of the Union of South Africa as had been favoured by the British Government.

Resources Management Strategy (WRMS) Unit. The Unit operated semi-autonomously and did the groundwork for the new water reforms in which elements of neoliberal agenda featured prominently. In the early stages IWRM was, however, not mentioned by name.<sup>6</sup>

## EFFORTS AT INTRODUCING AND INSTITUTIONALISING IWRM

### Introduction of IWRM

Beginning in 1990, the government began to implement the IMF/World Bank-sponsored Economic Structural Adjustment Programme (ESAP), a liberal economic blueprint the government had reluctantly agreed to adopt. Reluctantly is the operative word here. The country had flirted with socialism in the first few years of independence in 1980 but gradually abandoned it in the wake of poor economic performance and resorted to sponsorship of IMF/World Bank. The minister responsible for water could not have been more explicit on the relationship between the World Bank/IMF economic philosophy which the country had adopted, and the IWRM-inspired water reforms when she said:

With such a background (too much government involvement and cost) government decided in May 1994 to form the Zimbabwe National Water Authority which amalgamates the functions of Regional Water Authority and those of the Department of Water Resources and to operate on commercial lines. The proposal for the formation of ZINWA is in line with the objective of the Economic Structural Adjustment Programme (ESAP), to streamline civil service operations and promote economic efficiency.<sup>7</sup>

She was keen to show that this was part of a global neoliberal movement and not an isolated Zimbabwean project:

More and more throughout the world it is becoming evident that provision of water as opposed to the planning of water resources should be on commercial lines. Indeed, our neighbours are currently involved with changing the status of their respective Water Departments to commercial ventures. Botswana, Malawi, Namibia, South Africa and Zambia have either commercialised or are currently in the process of commercialisation.<sup>8</sup>

Given the timeline of Zimbabwean water reforms, it is not amiss to conclude that the Dublin principles guided the Zimbabwean water reforms, which were later adopted as IWRM principles by the GWP (see Mehta et al., this Issue; Allouche, this Issue).<sup>9</sup> In documents produced post-1998, particularly the Water Resources Strategy and later the National Water Policy, there is more explicit reference to the Dublin/IWRM principles as follows:

1. Freshwater is a finite and vulnerable resource, essential to sustain life, development and the environment;
2. Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels;
3. Women play a central part in the provision, management and safeguarding of water; and

<sup>6</sup> It is only in the 2013 National Water Policy that IWRM is mentioned by name, and effort is made to explain it.

<sup>7</sup> Joice Mujuru, Minister of Water Development and Rural Resources (Press Conference at Valley Dam on the 17th November, 1997).

<sup>8</sup> Joice Mujuru, Minister of Water Development quoted in Hansard Vol. 23, No. 8, 15 September 1998. However, Zimbabwe went much further down the road of commercialisation than the other southern African countries were prepared to go.

<sup>9</sup> GWP endorsed the Dublin principles by asserting that, while there were numerous general principles, approaches and guidelines relevant to IWRM, the Dublin principles were particularly useful (GWP, 2000).

4. Water has an economic value in all its competing uses and should be recognised as an economic good (GoZ, 2013a).

As a consequence, water management in Zimbabwe was to be based on the following principles:

1. Water as part of the same hydrological cycle with surface water and groundwater being part of one management system;
2. Water management areas demarcated along hydrological boundaries (known as catchment and sub-catchment councils) instead of politico-administrative boundaries since water does not respect such boundaries;
3. Stakeholder participation based on democratic elections;
4. User pays principles for all commercial water use buttressed by a water permit based on a 20-year period rather than water rights issued in perpetuity and on the priority date system;
5. The environment as a legitimate water user (which introduced the notion of environmental flow requirements); and
6. Polluter pays principle (GoZ, 2000).

In our documentation of implementation of IWRM we shall focus, in the next section of this paper, on principles one and four, and to some extent five and six. The two papers, one by Derman and Manzungu and the other by Hove et al., in this Issue adequately deal with principles two and three.

### **Attempts at institutionalising IWRM – The Integrated Water Resources Management Strategy for Zimbabwe**

Some two years after aspects of IWRM were included in the Water and ZINWA Acts, the WRMS Secretariat produced a document, titled 'Towards Integrated Water Resources Management: Water Resources Management Strategy for Zimbabwe' (GoZ, 2000) to which was appended the National Water Resources Policy and the National Water Pricing Policy and Strategy. While the title refers to IWRM, nowhere in the document is IWRM defined. A close examination shows that the Strategy was produced in the same year GWP put out its famed IWRM definition as attested by the minister in her foreword:

Water took a centre stage at the Second World Water Forum in The Hague in March 2000. The Ministers of Water (of which I was privileged to be one) declared that water is vital for life and health of people and ecosystems and a basic requirement for the development of nations (GoZ, 2000).

This reveals, as argued by other authors in this Special Issue, the massive donor- and international-influenced adoption of IWRM in southern Africa. In Zimbabwe, the Strategy was never formally adopted by cabinet for reasons that are not clear. Interestingly, the WRMS Secretariat was already proposing to amend the Water Act to pave the way for a third tier of water governance (below sub-catchment councils) to be known as water user boards, which had been scrapped in the lead up to the enactment of the legislation because of the fear that it would entrench the power of white farmers (Moyo, 2004). It is not clear how the secretariat proposed to diminish the political power of white farmers who, at the time, were still on the farms.

The Strategy proposed a National Water Resources Policy and not a National Water Policy, which is the exact opposite to the new 2013 Water Policy which devotes considerable attention to water supply. The Strategy thus reflected the mood of the day, namely that water reform was about how the water resource was to be managed. Water supply fell under local government and was not considered to be in a crisis. This is why issues concerning water supply, which were important to rural communities, had been an irritation to white farmers during sub-catchment council meetings. The repair of boreholes, which were an important and sometimes the only source of water for rural communities was

considered to be peripheral to the weighty issues of water resources management (Kujinga and Manzungu, 2004). Things however changed in the second coming of the IWRM in the 2000s when water supply, and in particular the privatisation of urban water supply, began to dominate the water sector in Zimbabwe (see below).

## UNRAVELLING OF IWRM: 2000-2009

### Political context

In this section we examine the challenges that confronted the implementation of IWRM between 2000 and 2009. Table 2 shows a selection of the most important events which had a significant impact on IWRM implementation. As can be seen from the Table 2, the events related to economic challenges, national-level politics and the country's international isolation.

Table 2. Important national political events that affected implementation of IWRM in Zimbabwe between 2000 and 2009.

Year	Event	Results	Outcomes
2000	The ruling ZANU PF party-sponsored national referendum on new constitution is rejected	Ruling ZANU PF allows war veterans to invade white commercial land in protest heralding the start of the fast-track land reform programme <sup>10</sup>	Agricultural production declines; donors withdraw financial support from the water sector; start of economic downturn, which resulted in government defaulting on loans; beginning of international isolation
	National elections	Opposition MDC party wins 57 out of 120 seats	Ruling ZANU PF party is unsettled and promotes fast-track land reform
2002	Presidential elections	President Mugabe wins elections and cements his power	Ruling party continues its land policy which dislocates water reforms by diminishing water revenue and disregarding existing irrigation systems
2005	National elections	Opposition MDC wins only 41 out of 120 seats	Ruling ZANU PF party becomes confident and does not change policy. Economic crisis deepens giving rise to hyperinflation
2008	National elections	Opposition MDC wins parliamentary majority by 110 out of 210 seats. Ruling ZANU PF loses parliamentary majority and its presidential candidate (Robert Mugabe) loses in the first round	International isolation is enhanced; country cannot access lines of credit and donor funds; hyperinflation worsens; political dialogue starts in September to resolve the political impasse

<sup>10</sup> The widely held interpretation is that while the ruling party in public accepted the result it was rattled and allowed the land invasions which began in early 2000 and in time came to be known as the fast-track land reform programme, which was characterised by unlawful and violent seizure of white commercial farms.

		and wins a disputed second-round election	
		Worst cholera outbreak in Africa in the last 15 years infects 92,000 people in 2008/2009 and results in over 4000 deaths (Mason, 2009)	International community offers water supply and sanitation support as part of humanitarian assistance
2009	Political settlement culminating in a National Unity Government in February 2009	International recognition resulting in some level of international engagement	Humanitarian assistance continues and diversified from short-term intervention into long-term intervention in the form of rehabilitation of water supply and sanitation infrastructure mainly in urban areas; GDP growth of 6% registered in 2009 and over 10% in the following two years
2013	National elections	ZANU PF regains parliamentary majority and its leader (Robert Mugabe) wins presidential elections putting an end to the national unity government	Western donors and multilateral institutions continue to engage government on development programmes

As described later, the international re-engagement paved the way for the development of the new 2013 Water Policy, which essentially tried to resurrect IWRM. For now, we turn to the implementation challenges between 1998 (when the water reforms were introduced) and 2013, until introduction of the new policy when there was another attempt to operationalise IWRM principles.

### Unintegrated water management

#### *Illusion of a unified water allocation system and integrated water management*

The Water Act provides for one unified water allocation system on the basis that all water is part of the same hydrological cycle (GoZ, 1998a). Theoretically therefore, surface water (in rivers and stored in dams) and groundwater should be allocated by catchment councils with the help of the catchment manager who is a ZINWA employee (GoZ, 1998a). Allocation is ideally based on the water permit system which is supposed to keep a record of all water use and also forms the basis for charging for water.

The vision of a unified water allocation system did not materialise for a number of reasons. First, because of the fast-track land reform, it was not possible to keep a record of who was cultivating which land and who was using how much water where and when. Second, water in government dams, continued to be allocated and sold by ZINWA and remained outside the remit of catchment councils as provided in law (Davis and Hirji, 2014).<sup>11</sup> This was justified on the grounds that the government had invested public money in building the dams. Such water is managed by ZINWA and accessed by farmers who enter into agreement with ZINWA to purchase a defined volume of water per year. This is why it is called agreement water. Once allocated this water has to be paid for irrespective of whether it is used

<sup>11</sup> It appears that ZINWA does not want to let go of this responsibility, which is understandable given not only the lack of capacity among catchment councils but also that this is perhaps a major revenue stream for ZINWA.

or not since the water cannot be reallocated to someone else. It is also worth noting that the water is sold at the national blend price that takes into account the recovery of a hypothetical loan annuity payment over 40 years and the operation and maintenance costs of the dams (GoZ, 2013a). It is more expensive than water abstracted from rivers and groundwater.

The distinction between the two 'waters' is operationally complex for two reasons. First, water released by ZINWA from dams goes through rivers, which raises the practicality of separating water flowing in rivers and water in government dams. Second, since water in rivers is cheaper<sup>12</sup> the result was that many water users apply for abstracting water from rivers with the full knowledge that this would be water released from government dams (Manzungu, 2011; Hove et al., in this Issue).

There were also other factors that complicated water allocation. First, many of the new water users were ignorant of the law, and sometimes defied/circumvented of the law. Second, authorities, when it suited them, violated some provisions of the law. For example, some black farmers were issued with water permits despite the fact that there were no catchment outline plans in place as required by law (GoZ, 1998a). The plans were only published in 2011, and were poorly conceptualised in terms of process and content (Mabiza, 2013). Third, the inability to pay for water due to low profitability of agriculture, as well as due to unresolved ownership/usage arrangements regarding the use of water in dams, irrigation infrastructure, undermined implementation of the permit system (Manzungu, 2011).

#### *Complexities in integrating land and water*

IWRM prides itself in 'the development and management of water, land and related resources', implying a seamless development of the two. In Zimbabwe this was not the case but was, in fact, far from it. Land and water reforms were undertaken separately (see Hove et al., in this Issue and the case of South Africa, in this Issue). The two reforms could not attract the attention of donors at the same time. In the early 1980s land reform was more visible in the discourse and was funded by Western donors (Thomas, 2003) while water became more visible in the discourse in the 1990s and was also funded by Western donors (see Derman and Manzungu in this Issue). But from the late 1990s into the early 2000s, land reform became more prominent and its implementation derailed water reform as it was envisaged (Mtisi and Nicol, 2003).

#### *Deficiencies in environmental protection of water resources*

Another integration challenge was how to ensure environmental protection of water resources, which depended on having in place a system that integrated the management of water quality and water quantity (which includes environmental flow releases). There were a number of challenges. First, monitoring of water quality was separated from monitoring of water quantity. ZINWA lost the mandate for monitoring water quality to the Environmental Management Agency (EMA) on the basis that enforcement of all environmental phenomena should fall under one body (EMA). A related challenge is that ZINWA's database on water quantity is based on hydrological boundaries while EMA's database on water quality is based on political-administrative boundaries. In the second instance ambient water-quality monitoring and discharge licences, which are critical for enforcing the polluter pays principle, are poorly implemented because EMA lacks human and financial capacity (Naome et al., 2012). There are also no resources for ensuring compliance with the conditions of the licences. Third, ZINWA has not implemented environmental flow releases because of capacity constraints (GoZ, 2013a).

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<sup>12</sup> Water abstracted from a public stream and groundwater only attracts a water and sub-catchment levy which used to be in the region of USD3/ML but has been reduced to USD1/ML.

## User pays principle falters

In this section we show that the mantra of water as an economic good, as represented by the user pays principle, came unstuck because of differences in hydrological realities, diminishing water use and political pragmatism and rent seeking.

### *Hydrological realities*

As already reported above, water revenue comes from either permits granted to abstract surface water and groundwater or from water stored in government dams. By policy, revenue from flow water is the only revenue stream for sub-catchment councils while ZINWA sells water in government dams. Therefore, sub-catchments located in high rainfall areas can sell more water unlike in dry sub-catchments where rivers dry up for a greater part of the year. As such in drier catchments there is very little revenue even if irrigation is taking place and is using 'agreement water'.

Sub-catchments where there are many boreholes can also raise significant revenue. This is the case in urban areas where, because of shortcomings in the urban water supply, residents have turned to drilling boreholes (Manzungu et al., 2016). Such is the case in Upper Manyame Subcatchment Council in which the Greater Harare, the largest metropolitan area of the country is found, which accounts for 16% of the country's population (Manzungu et al., 2016). But all sub-catchments are, in general, financially disadvantaged because they levy a relatively smaller percentage of water resources in the country – it is estimated that only 16% of the water permits are flow permits which sub-catchments can levy. The result is that there are many financially unviable sub-catchments, whose operations have been crippled since they are solely funded by water revenue. But even in those that are potentially financially viable, diminishing water use has become a challenge as described below.

### *Diminishing water use*

All sub-catchments and ZINWA were negatively affected in large part due to the impacts of the fast-track land reform programme. Revenues from irrigation significantly dwindled because of reduced irrigation activity (Manzungu, 2011; Mtisi, 2011). The consequence was a huge decline in water revenue across all the catchments (Figure 1).<sup>13</sup>

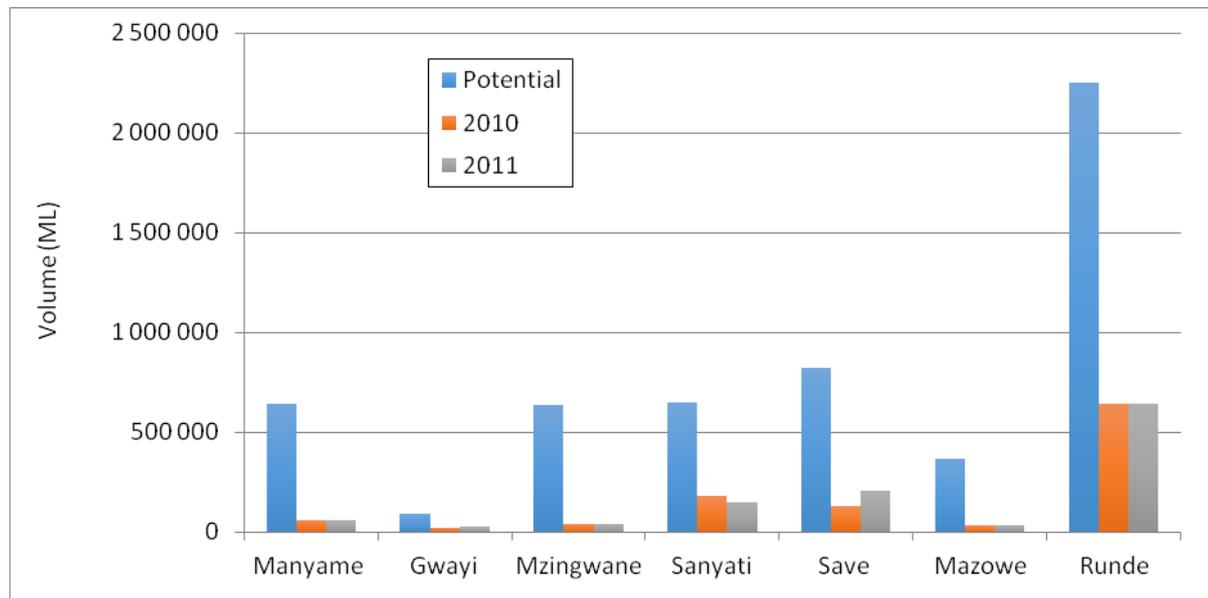
The reduced water revenues negatively affected the operations of ZINWA and sub-catchment councils. This was not helped by poor economic performance, and uncertainties about land tenure, and drought. This situation was also worsened by donors, who had supported catchment and sub-catchment councils, and had stopped doing so because of political issues in Zimbabwe.

The net result was that water resources management was negatively affected in three dimensions. First, there was inadequate information gathering and monitoring worsened by a deteriorating infrastructure. Second, ZINWA virtually stopped dam safety inspections. Third, there were limited silt and sediment surveys.

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<sup>13</sup> The high water sales in the Runde Catchment was because of the large commercial sugar-cane estates in the southeastern Lowveld where irrigation was not disrupted much.

Figure 1. Status of agricultural water use in Zimbabwe's catchment areas as of 2011.



Source: Manzungu, 2011.

#### *Political manoeuvrings, pragmatism and rent seeking*

In this section we provide more evidence of amputation of the 'user pays principle' or 'water is an economic good' in general terms. First it is worth noting that the price of water is the same across all the catchments. This went against the liberal economic paradigm. Calls were made for the blend price to be dispensed with and for water tariffs to vary per catchment to reflect the varying (market) demand for water, which was rejected on the grounds that the blend price protected public interest in water (MWRDM, 2012).

The user pays principle could also not be implemented to the letter because of socio-political considerations. Irrigation water is charged differently for different water users, with the government subsidising smallholder farmers (Table 3). There was also tension between individual farmer interests (who now include the who is who in Zimbabwe) and public interest. Water institutions favoured high water levies because these equalled more revenue while farmers lobbied for low water levies. In the end, farmer interests prevailed because in 2013 water levies across the country were reduced to USD1/megalitre from USD3.<sup>14</sup> The argument was that this would boost agricultural production. A closer examination of Table 3 shows that the level of subsidy for the poor farmers (categories 5, 6 and 7) is the same as that for the middle class farmers (category 3). Moreover, the reduction of water to the poor farmers was only useful if the farmers had access to irrigation infrastructure. Many do not.

There are also policy areas that have been left grey, which have allowed some users to benefit from hidden subsidies. A World Bank-sponsored paper found that some people paid for storing water (storage permits) while others do not and yet others paid at a rate or lower price than abstracting water from a public stream on the understanding that farmers would have invested in storage facilities (Manzungu, 2011).

<sup>14</sup> A high ranking ZINWA official revealed that there was no statutory instrument for this. This was through a ministerial pronouncement.

But by far the biggest subsidy went to the government, which refused to pay for storage permits for all ZINWA dams. By law, sub-catchment councils can charge ZINWA for storing water in their areas of jurisdiction as ZINWA, like any other applicant, is issued a storage permit for each dam. But the government refused arguing that this would mean paying for stored water which was not being used.

Table 3. Water tariffs for raw water secured under agreement water in Zimbabwe

Consumer category	Water use	USD/ML	2016 price (USD/ML)	% price reduction
1	Industry	13.17	9.45	28.2
2	Commercial Agriculture-Estate	12.68	12.00	5.4
3	Commercial Agriculture-A2 Farmers	12.19	5.00	59.0
4	Local authorities	11.17	6.00	46.3
5	A1 farmers	7.80	3.00	61.5
6	Communal pumped	5.00	2.00	60.0
7	Communal gravity	5.00	2.00	60.0

Source: Manzungu, 2011; GoZ, 2016.

Political favours also compromised the market thrust of the reforms. This was epitomised by Greenfuel, a company involved in sugar-cane production for ethanol production in the southeast part of the country. It managed to get a discount on the price of water through a ministerial intervention and not through ZINWA or catchment councils, which are the relevant formal channels. A well-placed source revealed that it was not even paying the discounted price! The circumstances are so sensitive that the details of the irregular dealings were not available. We can add that the company was never far from controversy. After the 2013 elections when a ZANU PF government was in power it managed to secure mandatory blending of petrol with ethanol (Zhangazha, 2015), which had been opposed by the minister who hailed from the opposition (see below). Yet another controversy related to allegations of the company taking land from the local community (Mutopo and Chiweshe, 2014) and its contribution to pollution of local rivers (The Standard, 2014).

### RESUSCITATING IWRM: FORMULATION OF THE ZIMBABWE NATIONAL WATER POLICY (2011-2013)

IWRM was resuscitated in Zimbabwe largely through the Zimbabwe National Water Policy which we focus on in detail below. It is important to state that in parallel, there was another process to rehabilitate the water supply and sanitation infrastructure in urban and rural areas, which had deteriorated significantly between 2000 and 2008 (which caused the cholera outbreak that killed over 4000 people in late 2008 and early 2009 (Mason, 2009). The international support resulted in two main financial facilities, the Unicef Water, Sanitation and Hygiene Project and the Zimfund Urgent Water Supply and Sanitation Rehabilitation Project, which was launched in 2010 and administered by the African Development Bank (AfDB). Huge figures are involved. For example, the 2015 Zimbabwean government budget statement notes that development partners were supporting the Unicef administered facility to the tune of USD83 million between 2013 and 2016 of which USD53 million was earmarked for urban areas and the balance for rural areas (MFED, 2015). Meanwhile there was practically no money pledged for traditional IWRM-related activities such as water resources management that could be used to support the activities of ZINWA, catchment and sub-catchment councils.

### Justification of a new Water Policy: 2011-2013

The return of IWRM into the public policy discourse in Zimbabwe can be linked to the country's re-engagement with the international community, which was a consequence of the Government of National Unity formed in 2009 following the disputed elections of 2008. The improved political climate provided an opportunity for Western countries to widen their support beyond humanitarian relief, which was the only permissible support under the Western sanctions that were imposed on the country. For that to happen a new cooperation framework that would permit developmental assistance was needed. In the water sector this took the shape of developing a new water policy meant to provide direction for the development and management of water resources in the short, medium, and the long term.

Since the World Bank could not use its own funds in Zimbabwe, it coordinated donor funds through a new entity called the Analytic Multi Donor Trust Fund (AMDTF), which was not a lending programme but a facility for providing technical and policy support. One of the important tasks of the Trust Fund was to develop a new National Water Policy. The Bank mobilised funding to develop a draft policy that the Ministry would use to engage stakeholders. The process was meant to be participatory and was coordinated by the National Action Committee (interministerial committee responsible for coordinating the water sector). However, the short time frame made this an impossible task.<sup>15</sup>

In terms of process, a number of issue papers, authored by local and international consultants, were produced between September and December 2011 under the guidance of local and international World Bank staff. The papers were integrated into a background paper by the Bank. This was then refined into a policy discussion document produced by two Zimbabwean consultants. Oversight of the process and content were provided by the Ministry of Water Resources Development and Management. The draft Water Policy went through a number of discussions involving representatives of stakeholder groups. It was adopted on December 12, 2012 and officially launched in March 2013.<sup>16</sup> The commitment to IWRM is evident:

Zimbabwe enacted the 1998 Water and ZINWA Acts based on universally accepted principles of Integrated Water Resources Management (IWRM) and following wide consultative processes from 1995 to 2000. Although the vision of this legislation has not yet been fully realised, *the principles of IWRM applied are relevant for Zimbabwe today and in the future*. Besides being universally applicable, most of the principles are already imbedded in Zimbabwe's policies and legislation, including the unpublished 2004 Water Policy, the EMA Act of 2002, Water Resources Management Strategy of 2000 and 2009 National Environmental Policy and Strategies (GoZ, 2013a: 18, emphasis added).

The policy reiterates that IWRM is the approach that maintains the integrity of the water resource so that water can be used productively for present and future water users based on 1) integrating the management of the whole water cycle, 2) decentralising responsibility of water management to the river catchment level, 3) promoting stakeholder participation in decision-making processes involving water management, and 4) treating water as a social and an economic good (GoZ, 2013a: 18).

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<sup>15</sup> The whole process from production of technical papers to production of the draft policy document took about 8 months.

<sup>16</sup> The National Water Policy was approved by the government on 12 December 2012 and publicly launched on World Water Day, March 22, 2013 in Victoria Falls by the Deputy Prime Minister, Ms. T. Khupe. The policy was presented by the Permanent Secretary, Mr. R.J. Chitsiko at the Third Zimbabwe Water Forum held on 30 January, 2013 with Mr. Zeb Murungweni, Water Resources Development and Management Specialist and Mr. Ousmane Dione, Sector Manager, East Asia, World Bank as discussants.

### **Reincarnation of neoliberalism and prominence of water supply**

The Policy did not suggest anything new as far as water resources management was concerned except to appeal for more funding to ensure that catchment and sub-catchment councils and ZINWA discharged their respective mandates effectively. There was also a suggestion to streamline the relationship between Department of Water (DWD), catchment and sub-catchment councils and ZINWA.

However, the Policy made a strong pitch for privatising urban water supply. As a way of preparing the groundwork for water privatisation, a new institutional architecture for water supply and sanitation was mooted. Local authorities would act as service authorities that would engage service providers with an independent Water and Wastewater Services Regulatory Unit acting as the arbiter. Revenue from water sales would be ring-fenced so that it would finance water-related activities and not operate as a general fund (MWRDM, 2012).

The new policy is weak on social agenda, which was a surprising omission given the debate about the human right to water during the consultations of the new constitution between 2009 and 2013. The new 2013 constitution provides for clean drinking water as a basic human right (GoZ, 2013b). The Policy provides that in rural areas primary water shall be given the first and higher priority. In urban areas, primary water needs were to be based on lifeline tariffs, and it is only in cases where people cannot afford to pay, that a free life-saving water per household of 10 m<sup>3</sup> per month can be supplied (GoZ, 2013a). Since it was realised it would be difficult to establish who could not pay, there was the provision of a two- or three-stage rising block tariff regime (GoZ, 2013a). This position was a compromise because urban municipalities had argued this would constitute a substantial revenue loss on their part.

### **World Bank as an honest broker?**

According to the Zimbabwean authors of the draft water policy, the process involved complex negotiations between and within government departments and the donor community represented by the World Bank. Within government departments there was a begrudging cooperation from the agricultural and water supply sub-sectors. They were interested in developing their own sectoral policies. The agricultural ministry was developing an irrigation policy while the water supply and sanitation subsector was interested in developing a sanitation and hygiene policy to support the strategy that was already in place.

The water ministry argued that the National Water policy was meant to be broader than a sectoral policy. In his foreword, the Minister stated that the National Water Policy was based on international best practice, and would include sub-sectoral policies for both urban and rural water supplies and sanitation, water resources management and development, the environment and agricultural water use (GoZ, 2013a: i).

Given the contentious nature of the issues, it was left to the World Bank staff to steer the discussion. In this process they played their cards strategically by not appearing to lead the process while actually leading it. They played the role of a broker between and within government departments. This shrewd political game guaranteed that the new policy would gain legitimacy. In some cases, this meant endorsing disputable facts. For example, the country's irrigation potential is given in the policy as 2 million hectares (ha) at the insistence of the Ministry of Agriculture when, in fact, the widely quoted figure is around 600,000 ha (Manzungu, 2011; GoZ, 2013a). On its part, the World Bank got pretty much what it wanted – the Bank once again managed to sell a neoliberal approach to water management.

### **PROSPECTS FOR IMPLEMENTING IWRM**

The Zimbabwe National Water Policy promised a renewal and revival of IWRM in Zimbabwe. The question is: what are the prospects for its successful implementation? The Policy was developed under

the watch of an MDC-T minister who has since left office after the disputed July 2013 elections won by ZANU-PF. This is worth mentioning because the international isolation has continued albeit with some modification. As described above, donors did not return to water resources management.

The Policy suggests that Zimbabwe needs to urgently prepare an implementation strategy for the recovery of the water sector and emphasises water supply and sanitation services unlike the WRMS document. This was to be achieved through a review, amendment and synchronisation of legislation and regulations, and coordinating activities of relevant agencies. Some of the proposed changes include revisiting the role of the catchment manager, unbundling ZINWA into strategic business units, and moving the non-commercial aspects of water (referred to as statutory functions) away from ZINWA.

It was observed that three years later nothing had materialised. The government does not seem to be channelling money towards IWRM. The Director of Water Resources acknowledged that since the approval of the new policy, there has been little progress because of financial constraints, worsened by the fact that there is no longer any donor support – the support was now being channelled toward physical infrastructure in the water supply and sanitation subsector. He lamented the fact that the focus has been on small efforts that did not require significant amounts of money. He also observed that the Water Act would have to be reviewed to cater for the policy changes and the new constitution.

Despite the apparent lack of progress, the IWRM rhetoric does not seem to be dying anytime soon. The Director claimed that IWRM guides water management in the country, pointing to the existence of the concept of catchment, which illustrated decentralised water management. But one has to read in between lines. We wonder if there was a real intent to ensure decentralisation, which comprises openness, participation and accountability, takes hold (Batterbury and Fernando, 2006). History matters and commitments to local governance in Zimbabwe remain suspect (Makumbe, 1996). It appears what is being suggested is decentralised revenue collection in pursuit of the notion of water as an economic good. The fact that there is no longer a stand-alone ministry of water has also diminished prospects for implementing the policy. The whole water sector has been reduced to one of three sub-sectors in the new Ministry of Environment, Water and Climate.

## DISCUSSION AND CONCLUSION

This paper sought to understand why Zimbabwe's water reforms, undertaken in the mid-1990s, and seemingly motivated by a clear political economy objective of trying to redress 90 years of racially motivated inequitable access to agricultural water, was hijacked by efforts directed at implementing IWRM. The paper focused on the formulation, implementation and reformulation of IWRM, which was anything but linear as implied in the standard definition of IWRM. This is because IWRM meant different things to different actors, living up to its billing as a nirvana concept (Molle, 2008). For example, the Government of Zimbabwe first introduced and saw it as a means to fix a government cash flow problem, which differed materially from some academics and World Bank staffers who saw it as a solution to Zimbabwe's water management challenges (Chenje et al., 1998; Davis and Hirji, 2014). Thus the government and donors were still able to claim that they were implementing IWRM when actually they were pushing different agendas. The various narratives, influenced by different interests, resulted in a chequered history of IWRM in Zimbabwe. We highlight below a few critical factors that explain this chequered history. To this end we analyse what happened in the first articulation (the first surge), the dis-articulation (the ebb) and re-articulation of IWRM (the second surge) in that order.

The first IWRM surge occurred in the 1990s when Western donors complemented the IMF/World Bank-inspired liberal economic agenda, which Zimbabwe had signed up to in 1990. Thus to a domestic water reform agenda was added a neoliberal agenda, which was part of a wider liberalist economic philosophy whose roots can be traced to the structural adjustment programmes that many African countries, including Zimbabwe, underwent in the 1980 and 1990s. And unfortunately, just like the

structural adjustment programmes, IWRM in Zimbabwe has failed and is failing the majority of the population.

The Government of Zimbabwe's initial enthusiasm of IWRM was followed by a decade of what could be construed as the lowest ebb in IWRM implementation as illustrated by paralysis in the implementation of IWRM (Feresu, 2010). This was because of a combination of poor economic performance (due to poor or wrongly implemented social and economic policies), national-level politics as political parties jostled for power, as well as waning international support due to poor international creditworthiness, and donor withdrawal at the behest of Western countries on allegations of democratic and human rights violations in the country. During this period land reform proved to be the most disruptive to IWRM implementation (see Hove et al., in this Issue). The dis-articulation of IWRM demonstrated that water resources management decisions were made up of everyday politics, politics of policy-making, hydropolitics and global politics (Mollinga, 2001). The end result was that operationalisation of IWRM became difficult if not impossible to achieve as attested by challenges of implementing a unified water allocation system, integrating land and water, and implementing the user pays principle.

The return of IWRM on the Zimbabwean scene in 2009 showed the link between politics and IWRM – it needed a political settlement between the political players in Zimbabwe (in the shape of the unity government between ZANU PF and MDC) for IWRM to once again appear on the radar. Meanwhile the World Bank still believed that IWRM could have succeeded were it not for the 'extraneous political issues'. But this Habermasian perspective of IWRM, which emphasises that IWRM implementation can succeed if communicative rationality is applied (Saravanan et al., 2009), has no empirical basis as illustrated by various articles in this Special Issue.

From the above we can observe that the nature of IWRM articulation, dis-articulation and re-articulation was inherently political as argued by others in this Special Issue (see also Mollinga, 2001; Wester, 2008). It was through cooperative and sometimes conflicting relationships between the Zimbabwean state and donors that we see delicate negotiations at play, which by no means were static. Thus the fortunes of IWRM in Zimbabwe reflected the competing and sometimes irreconcilable narratives between the main protagonists – the international community on the one hand and the Zimbabwean state on the other. IWRM was a bargaining chip but of course not the only one. Where the (political) interests between the two protagonists converged, as was the case at the start when World Bank 'sold' the Economic Structural Adjustment Programme to Zimbabwe, which Zimbabwe 'bought' because of the need to fix the economy, IWRM flourished in the form in which it was defined. But when the interests diverged IWRM began to unravel. The international community suspended promoting IWRM because it wanted to implement IWRM in an 'acceptable' political environment. The Zimbabwean state could only provide this environment as long as it lined up with its own political interests, which was informed by continuing in power. In this game, discarding IWRM was a small price to pay. By acting thus, the Zimbabwean state opted for strategic acquiescence (to a limited extent though) where it selectively embraced those aspects that mostly met its political objectives. Thus the government resisted attempts to go further down the IWRM road when its political interests were in jeopardy. The IWRM bandwagon could move as long as the IMF/World Bank and the Government of Zimbabwe agendas were mutually self-reinforcing. Once that mutuality stopped IWRM could no longer be sustained. National-level events and processes also provided another dimension to implementation of IWRM (see Tables 2 and 3). But politics was not confined to the national level – interdepartmental interests led to implementation challenges as illustrated by the clash between ZINWA and EMA over water-quality issues and the foot-dragging by the agricultural and water supply and sanitation sub-sectors during the formulation of the 2013 National Water Policy.

In conclusion we make the observation that the articulation, dis-articulation and re-articulation of IWRM resulted in Zimbabwe having in its cupboard an IWRM skeleton, maintained more by inertia than by design. Having set up catchment and sub-catchment councils and the other IWRM trappings, such as

establishing self-financing water institutions, the government could not be drawn into dismantling them at least in explicit terms. So IWRM in Zimbabwe is likely to be continuously invoked by different actors when it suits their purposes.

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## REFERENCES

- Batterbury, S. and Fernando, J. 2006. Rescaling governance and the impacts of political and environmental decentralization: An introduction. *World Development* 34 (11): 1851-1863.
- Benson, C. and Clay, E. 1998. *The impact of drought on sub-Saharan African economies: A preliminary observation*. IMF/World Bank paper. Washington, DC: World Bank.
- Bolding, A.; Manzungu, E. and van der Zaag, P. 1999. A realistic approach to water reform in Zimbabwe. In Manzungu, E.; Senzanje, A. and van der Zaag, P. (Eds), *Water for agriculture in Zimbabwe: Policy and management options for the smallholder sector*, pp. 225-253. Harare: University of Zimbabwe Publications.
- Chenje, M.; Sola, L. and Paleczny, D. (Eds). 1998. *The state of Zimbabwe's environment*. Harare, Zimbabwe: Government of the Republic of Zimbabwe, Ministry of Mines, Environment and Tourism.
- Chereni, A. 2007. The problem of institutional fit in integrated water resource management: A case study of Zimbabwe's Mazowe catchment. *Physics and Chemistry of the Earth* 32(15-18): 1246-1256.
- Cherlet, J. and Venot, J. 2013. Structure and agency: Understanding water policy changes in West Africa. *Water Policy* 15(3): 479-495.
- Davis, R. and Hirji, R. 2014. *Climate change and water resources planning, development and management in Zimbabwe: An issues paper*. Washington, DC: World Bank.
- ECA (Economic Consulting Associates); Dorsch International Consultants and Brian Colquhoun; Hugh, O. and Donnel and Partners. 2013. *Zimbabwe: Water sector investment analysis*. Working Paper No. 5 – Water-development growth and development. London: Report to the World Bank, Economic Consulting Associates Limited.
- Feresu, S.B. (Ed). 2010. *Zimbabwe environment outlook: Our environment, everybody's responsibility*. Harare, Zimbabwe: The Ministry of Environment and Natural Resources Management.
- GoZ (Government of Zimbabwe). 1998a. *Water Act [Chapter 20: 24]*. Harare: Government Printers.
- GoZ. 1998b. *Zimbabwe National Water Authority Act. [Chapter 20; 25]*. Harare: Government Printers.
- GoZ. 2000. *Towards integrated water resources management: Water resources strategy for Zimbabwe*. Harare, Zimbabwe: Ministry of Rural Resources and Water Development.
- GoZ. 2013a. *National water policy*. Harare, Zimbabwe: Ministry of Water Resources and Development.
- GoZ. 2013b. *Constitution of Zimbabwe Amendment (No. 20)*. Harare: Government Printers.
- GoZ. 2016. Zimbabwe National Water Authority (Raw Water Tariffs), Chapter 20: 25 Statutory Instrument 48 of 2016, Harare, Government Printers.
- GWP (Global Water Partnership). 2000. *Integrated water resources management*. TAC Background Paper No. 4. Stockholm: Global Water Partnership.
- Hellum, A. and Derman, B. 2005. Negotiating water rights in the context of a new political and legal landscape in Zimbabwe. In von Benda-Beckmann, F.; von Benda-Beckmann, K. and Griffiths, A. (Eds), *Mobile people, mobile law: Expanding legal relations in a contracting world*, pp. 177-198. Aldershot and Burlington, VT: Ashgate.
- Kramer, E. 1997. The early years: Extension in peasant agriculture in colonial Zimbabwe, 1925-1929. *Zambezia* 24(2): 159-179.

- Kujinga, K. and Manzungu, E. 2004. Enduring contestations: Stakeholder participation in water resource management in the Save catchment area, Eastern Zimbabwe. *Eastern Africa Social Science Review* 20(1): 67-92.
- Mabiza, C. 2013. IWRM, institutions and livelihoods under stress: Bottom up perspectives from Zimbabwe. PhD thesis. Delft University, Delft, the Netherlands.
- Makumbe, J. 1996. *Participatory development: The case of Zimbabwe*. Harare: University of Zimbabwe Publications.
- Manzungu, E. 2001. A lost opportunity: An analysis of the water reform debate in the fourth parliament of Zimbabwe. *Zambezia* 28(1): 97-120.
- Manzungu, E. 2002. Global rhetoric and local realities: The case of Zimbabwe's water reform. In Chikowore, G.; Manzungu, E.; Mushayavanhu, D. and Shoko, D. (Eds), *Managing common property in an age of globalisation: Experiences from Zimbabwe*, pp. 31-44. Harare: Weaver Press.
- Manzungu, E. 2004. Water for all: Improving water resource governance in southern Africa. *Gatekeeper Series* 113: 1-24.
- Manzungu, E. 2011. *Reviving irrigation development and management*. Thematic Paper No. 3 for Background Paper on Water Resources Development and Management to support Zimbabwe National Water Policy. Washington, DC: World Bank.
- Manzungu, E. and Machiridza, R. 2009. Economic-legal ideology and water management in Zimbabwe. *Economics, Management and Financial Markets* 4(1): 66-102.
- Manzungu, E.; Mudenda-Damba, M.; Madyiwa, S.; Dzingirayi, V. and Musoni, S. 2016. Bulk water suppliers in the City of Harare – An endogenous form of privatisation of urban domestic water supply in Zimbabwe. *Water Alternatives* 9(1): 56-80.
- Mason, P.R. 2009. Zimbabwe experiences the worst epidemic of cholera in Africa. *The Journal of Infection in Developing Countries* 3(2): 148-151.
- Mehta, L.; Alba, R.; Bolding, A.; Denby, K.; Derman, B.; Hove, T.; Manzungu, E.; Prabhakaran, P. and van Koppen, B. 2014. The politics of IWRM in Southern Africa. *International Journal of Water Resources Development* 30(3): 528-542.
- MFED (Ministry of Finance and Economic Development). 2015. 2016 National Budget Statement. Harare.
- Molle, F. 2008. Nirvana concepts, narratives and policy models: Insights from the water sector. *Water Alternatives* 1(1): 131-156.
- Mollinga, P.P. 2001. Water and politics: Levels, rational choice and South Indian canal irrigation. *Futures* 33(8-9): 733-752.
- Mollinga, P.P. and Bolding, A. (Eds). 2004. *The politics of irrigation reform: Contested policy formulation and implementation in Asia, Africa and Latin America*. Aldershot, UK: Ashgate.
- Moyo, M. 2004. Participation dynamics in integrated water management in the Mazowe watershed. In Moll, H.; Leeuwis, C.; Vincent, L. and Manzungu, E. (Eds), *Agrarian institutions between policies and local action: Experiences from Zimbabwe*, pp. 109-126. Harare: Weaver Press.
- Mtisi, S. 2011. *Water reforms during the crisis and beyond: Understanding policy and political challenges of reforming the water sector in Zimbabwe*. Working Paper No. 333. London: Overseas Development Institute.
- Mtisi, S. and Nicol, A. 2003. Caught in the act: New stakeholders, decentralisation and water management processes in Zimbabwe. Sustainable Livelihoods in Southern Africa: Institutions, Governance and Policy Processes, Research Paper Series No. 14. [www.ids.ac.uk/slsa](http://www.ids.ac.uk/slsa) (accessed 22 July 2016)
- Mutopo, P. and Chiweshe, M. 2014. Large scale land deals, global capital and the politics of livelihoods: Experiences of women smallholder farmers in Chisumbanje, Zimbabwe. *International Journal of African Renaissance Studies* 9(1): 84-99.
- MWRDM (Ministry of Water Resources Development and Management). 2012. Water resources development and management background paper. *Towards a water secure Zimbabwe: Improving governance and utilization of water resources for the national water policy*. Harare, Zimbabwe.
- Naome, R.; Rajah, D. and Jerie, S. 2012. Challenges in implementing integrated environmental management approach in Zimbabwe. *Journal of Emerging Trends in Economics and Management Sciences* 3(4): 408-414.

- Palmer, R. 1977. *Land and racial domination in Rhodesia*. London: Heinemann.
- Phimister, I.R. 1987. *Economic and social history of Zimbabwe, 1890-1948: Capital accumulation and class struggle*. London: Longmans.
- Ranger, T. 1985. *Peasant consciousness and guerrilla war in Zimbabwe*. London: James Currey.
- Rhodesia. 1927. *Water Act, No. 41*. Salisbury: Government Printers.
- Rhodesia. 1976. *Water Act*. Salisbury: Government Printers.
- Saravanan, V.S.; McDonald, G.T. and Mollinga, P.P. 2009. Critical review of integrated water resources management: Moving beyond polarised discourse. *Natural Resources Forum* 33(1): 76-86.
- The Standard. 12 October 2014. Greenfuel poisoning the environment. <http://allafrica.com/stories/201410120104.html> (accessed 22 July 2014)
- Thomas, N.H. 2003. Land reform in Zimbabwe. *Third World Quarterly* 24(4): 691-712.
- Vincent, L. and Manzungu, E. 2004. Water rights and the availability of water in the Lower Odzi watershed in the Save catchment. In Moll, H.; Leeuwis, C.; Vincent, L. and Manzungu, E. (Eds), *Agrarian institutions between policies and local action: Experiences from Zimbabwe*, pp. 127-163. Harare: Weaver Press.
- Wester, P. 2008. *Shedding the waters: Institutional change and water control in Lerma-Chapala basin, Mexico*. PhD thesis. Wageningen University, Wageningen, the Netherlands.
- Zhangazha, W. 2015. Local fuel costly despite blending. *Zimbabwe Independent*, 7 August 2015. [www.theindependent.co.zw/2015/08/07/local-fuel-costly-despite-blending/](http://www.theindependent.co.zw/2015/08/07/local-fuel-costly-despite-blending/) (accessed 22 July 2016)

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