

Rethinking the politics of transboundary water management: The case of the Zambezi river basin¹

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This article challenges the prevailing ‘problem-solving’ discourse around transboundary water management, according to which river basins are largely taken as a ‘given’ ecological spaces and where the main challenge is to find environmentally sustainable ‘solutions’ to a number of specific ‘problems’ through rational, functional-technocratic or even scientific policies and institutions. Without rejecting the normative attractiveness of ecologically sustainable and basin-wide approaches, this article pays particular attention to the continued relevance of politics, power and national sovereignty. Such political perspective gives rise to a number of general but often overlooked policy issues, two of which are focused upon in this article. The first is the challenge to reconcile national benefits and interests with the common good and basin-wide approaches. The second is related to whether transboundary waters are best governed through specialized and functional river basin organizations (RBOs) or through more multipurpose regional organizations that have a more distinct political leverage?

Keywords: transboundary water management, river basin organization, regional organizations, Zambezi, Southern Africa.

1. Introduction

The Zambezi is the fourth largest river basin in Africa. As an ecosystem the Zambezi river basin is among the richest in Africa. The river is a veritable artery of life and development for large parts of the population, particularly in the main basin countries (Zambia, Zimbabwe, Malawi and Mozambique), and it constitutes the core of hydroelectric power production, mining industry, agriculture, fishery, urban development, and tourism. However, inefficient resource management, pollution, land degradation and deforestation that increase the risk for conflict and insecurity also undermine cooperation and sharing of resources in the river basin. Many of the problems in the Zambezi river basin can be understood as collective action dilemmas, where two or more actors fail to cooperate

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effectively around the common resource. Influential strands of research in the field of the environment underline that ‘institutions’ are effective remedies for collective action dilemmas (Hardin, 1968; ITFGPG, 2006; Ostrom, 1990). One of the main challenges for both research and policy is therefore how such institutions can be created, maintained and developed over time.

Prevailing wisdom in the field of transboundary water management takes the basin largely as a pre-defined ‘given’, where the main challenge is to solve a range of specific ‘problems’ (especially environmentally sustainable development, land usage, hydro-electricity, irrigation, fishery) through rational, scientific or functional-technocratic policies and institutions. By contrast, this article analyzes the Zambezi river basin as a multidimensional and porous social space, which is politically and socially constructed by different agencies, spatial imaginations and governance mechanisms that merge, mingle and sometimes also clash. Hence, the Zambezi river basin means different things to different peoples and agents in different policy fields (and during different time periods). Looking at the Zambezi river basin from such perspective serves the purpose to highlight the continued relevance of politics, power and national interests in the management of transboundary waters. This has, in turn, direct implications for how ‘institutions’ and governance mechanisms should be designed in order to solve collective action dilemmas.

The article is structured in the following way. The next two sections highlight the tension between the statist approach to water management and the more environmentally sound basin-wide approach. The subsequent two sections deepen the analysis and concentrate on two crucial policy dilemmas associated with the governance of transboundary river basins: (i) the challenge to reconcile national benefits and interests with the common good; and (ii) what type of regional organizations is most appropriate for facilitating effective management of transboundary waters? A brief conclusion rounds up the article.

2. Statist and Nationalist Water Governance

There is a rich cultural heritage in the Zambezi river basin. Most of the people living in the Zambezi basin speak languages of the Bantu-lineage that together with their common cultural and religious heritage provides a driving force for transboundary and cross-border integration across existing political boundary-lines. Yet, even if there are many transboundary identities and ethnicities in the Zambezi river basin, the interests of ruling colonial and national elites have constituted the main organizing principle for the governance and the management of the Zambezi basin.

Before independence the Zambezi river basin was above all defined and shaped in accordance with colonial interests. The driving actors during this era consisted of a tight mixed-actor coalition of colonizers, white settlers and commercial economic interests, which subsequently laid the foundation for the carving up of the basin along territorial and ‘statist’ boundary-lines. As British colonies Southern and Northern Rhodesia were closely linked, which facilitated joint projects and regional cooperation along the common border

(i.e. the Zambezi river). The fact that large parts of the ruling elites in the two colonies were part of the same community of white settlers provided for a sense of shared history and common construction of the future. Hydro-electricity played an important role in this logic, since it was a prerequisite for mining, agricultural production and the formation of urban centers, which in turn generated increased dependence on energy production.

One of the first major steps towards the establishment of a large hydroelectric power plant was taken in 1946 when the two Rhodesias formed the Inter-territorial Hydroelectric Power Commission. In 1953, the commonalities between the colonies/countries lead them to join with present-day Malawi in the formation of the Federation of Rhodesia and Nyasaland. Crowning this regional endeavour, the Kariba Dam was completed in 1958. The construction of the Kariba Dam, which at the time was the largest man-made reservoir in the world, resulted from the molding of economic and political elite interests and identities in the Zambezi basin. The interests vested in the Dam and its power production plant were strong enough to ensure continued cross-border cooperation in spite of growing political and ideological differences among the political and economic elites.

After independence the individual state-building ambitions became the driving force for how the Zambezi river basin was to be shaped, imagined and governed. For the most part the Zambezi river basin became organized along the national boundaries, according to a logic where 'the basin stops at the border', and 'we manage our side and hope they manage theirs'.² In this way the Zambezi river basin became a 'state-construct', which has aptly been described as built around the following logic:

each riparian state monitors, assesses, plans, develops, conserves and protects the Zambezi River resources within its own territory. The utilization of the water resources is done at the country level with little consultation and co-operation among riparian states. This situation is not conducive to the effective management of shared waters since each of the countries uses different standards. . . . The Zambezi River basin represents an arena of different national interest in which the various riparian states are developing diverging policies and plans that are usually not compatible. Upstream/downstream users are often not keen to consider the problems of each other (Chiuta, 2000, p. 153).

It is not as simple that this logic is only detrimental. Clearly, the state-centered management of natural resources in the Zambezi river basin has contributed to the economic and social well-being of the peoples in the riparian states as well as to national development in a broader sense. However, there are also a large number of problems directly linked to this way of organizing and governing the basin, such as environmental degradation, resource waste and unrealized potential. Although there are (of course) other causes related to underdevelopment and mismanagement of the basin's resources as well, at least some of the environmental problems and conflicts in the basin are directly related to the protective and competitive behaviour of several riparian states. The statist and nationalist orientation in the construction of the Zambezi river basin explains why it has taken so long for a basinwide management regime to be agreed on, as well as why it continues to be

² Anonymous interviewee at the Department of Water Development in Zimbabwe, 15 April 2001.

so weak. In this context it also needs to be underlined that the statist mode of governance has been reinforced by the *modus operandi* of the international donor community, which (at least in the past) has been designed to promote state-centric instead of basin-wide approaches to development (Stålgren, 2006; Swatuk, 2000).

3. 'Environmentally Sound' Water Governance

As far as environmentally sound policies are concerned, the dominant contemporary norm is that the Zambezi river basin should be seen as one single ecological unit, whereby natural resources should be managed in accordance with what is 'best' for the basin as a whole. This perspective is based on that many environmental and resource management issues are transboundary in nature and therefore usually require some sort of basin-wide solutions. The ecological approach to governance is based on a critique of 'old' solutions, especially the statist-nationalist mode of governance, which are believed to be 'elitist, high-political projects that exclude and/or ignore the needs of indigenous people — usually rural, small, subsistence farming communities — and the impacts on the natural environment' (Swatuk, 2000: 238; also see Stålgren, 2006; Nakayama, 1998).

The attempts to construct the Zambezi river basin along these lines are reinforced by the strength of environmental principles on the global scene, such as 'green lenses', 'the Green Revolution', the Rio Declaration and the Dublin Principles, which to a considerable extent are embraced by donors and powerful environmental civil society organizations in the North (Giordano & Wolf, 2003; Nakayama, 1998; Stålgren, 2006). Clearly, these external influences and actors give the ecological way of thinking considerable strength. As far as transboundary river basins are concerned these ecological principles are first and foremost linked to the paradigm of integrated water resources management (IWRM), which rests on three basic principles: ecological sustainability, social equity and economic efficiency.

During recent decades several concrete steps have been taken towards more environmentally sustainable river management in the Zambezi river basin. Given the limited mandate and membership of the Zambezi River Authority (ZRA), which only include Zambia and Zimbabwe, the eight basin states agreed on the Zambezi River Action Plan (ZACPLAN) in 1987. In many ways ZACPLAN was drawing on the IWRM paradigm and it aimed to promote the development and implementation of integrated and environmentally sound water resources management. It developed under the stewardship of the United National Environmental Program (UNEP). Yet, implementation failed for a number of reasons, which in many ways is related to power and politics — e.g. the failure to cooperate between member countries, lack of commitment from both riparian states as well as from the donor community (Nakayama, 1998; Swatuk, 2000). 'Since no behavioural change can be observed, the ZACPLAN can be qualified as ineffective' (Lindemann, 2005, p. 12). However, one of ZACPLAN's major achievements was that it contributed to the 1995 SADC Protocol on Shared Water Courses. Still, it took nearly two to three decades to

establish the present legal and institutional framework for the Zambezi river basin, the Zambezi Watercourse Commission (ZAMCOM).

Many SADC treaties and strategies are also based on ecological norms and principles, for instance, the various SADC Protocols on Shared Water Courses (signed 1995 and revised 2000), the SADC Regional Water Policy (2005), and the SADC Regional Water Strategy. The SADC Protocols, Policies and Strategies seek to avoid nationalist competition and establish basic principles for environmentally sustainable policies and the 'equitable' sharing of the region's water resources. Especially the SADC Protocol on Shared Watercourses provides a framework agreement for cooperation in specific river basins in the SADC region, such as the Okavango, Orange-Senqu, Limpopo and the Zambezi. The Protocol also expands the scope of cooperation beyond the water sector in the narrow sense to cover issues such as regional integration, infrastructure, socio-economic development and peace and security (SADC, 2011).

It is quite evident, however, that the ecological approach has not achieved its desired results. Even though the IWRM approach is strong in certain policy-making circles in the North and among certain agents and stakeholders, its impact on and effectiveness for the management of the Zambezi river basin remains limited (Nicol et al., 2001; Klaphake & Scheumann, 2006; Lindemann, 2005; Euroconsult, 2008; also cf. Giordano & Wolf, 2003). SADC's own review of Phase 1 of its Regional Strategic Action Plan on Integrated Water Resources Management and Development boldly claims that it 'was the most advanced and comprehensive multi-country freshwater programme in the world' (SADC, 2012). A rhetorical statement which clearly cannot be taken seriously.

One problem associated with the ecological approach is its internal consistency. The problem is that it is by no means self-evident what is actually an appropriate 'environmentally sound' solution (Nakayama, 1998; Giordano & Wolf, 2003). Indeed, the ecological approach can mean (too) many different things for too many stakeholders, with different mixes of ecological sustainability, social equity and economic efficiency in different contexts and issues. In many instances, there has been more emphasis on scientific policies and solutions instead of what is feasible and relevant from a political perspective. Hence, the tension between national benefits and ecological principles prevails.

The 'equitable sharing' of the common water resources goes to the heart of 'politics' and national sovereignty (Swatuk, 2000). Too often, however, there is a general lack of political commitment to the principle of 'sharing' by state elites. Especially upstream countries are not prepared to make sacrifices for the benefit of others. One example is Zimbabwe, which historically has showed little interest in sharing and any solution that would limit its national sovereignty (Chiuta, 2000, p. 153f). This has had detrimental effects for Mozambique but also other riparian countries. This outcome may be understood in terms of competing national interests, but it may also be understood in terms of an inherent tension between the state-centric approach and the ecological approach.

Furthermore, the donors and external actors play an extraordinary important role in the restructuring of the Zambezi river basin, and in the push for the ecological paradigm more generally. However, the ecologically sustainable basin-wide approach is often

difficult to pursue consistently since few donors as well as stakeholders have the means and mandate to operate outside their national contexts (Stålgren, 2006). As a result, most donors lack a coherent strategy how to reconcile the politically sensitive issue of national sovereignty with a basin-wide and more cooperative approach (Swatuk, 2000; Söderbaum & Granit, 2014).

Indeed, the proponents of IWRM appear to neglect the fact that this approach in many ways challenges the same forces and actors that have created the competitive dynamics of statist water management in the first place. Viewed from this perspective, it would be naïve to believe that political variables, power politics and national sovereignty will not continue to shape and define transboundary water management also in the future. It follows from this observation that one of the fundamental policy challenges in the management of transboundary waters is (i) how reconcile national benefits and interests with the common and regional good and (ii) how design institutions and governance mechanisms that are more appropriate at managing national sovereignty than the current ones (cf. Nakayama, 1998; ITFGPG, 2006). These two issues will be elaborated in the next two sections.

4. Reconciling National Interests with the Regional Good

The classic collective action dilemma occurs when a group as a whole would benefit from cooperation but externalities or individual incentives counteract such cooperation (Hardin, 1968; Olson, 1971; Ostrom, 1990). While local or national institutions may enhance efficient collective action and self-government on the subnational level, *transboundary* problems and international/regional public goods depend on a certain degree of *transnational or international* political coordination and governance. Hence, functioning international institutions have proved to be very difficult to establish due to the strength of the national interest/sovereignty and what is generally referred to as international anarchy (ITFGPG, 2006; Kaul et al., 1999). Hence, the ‘self-governing institutions’ emphasized in large parts of the environmental literature are less likely in international politics.

The collective action dilemma is very evident in the Zambezi river basin. The analysis in the two previous sections reveals that different constructions and visions about the basin may be tied to different agents, particularly governments and donors but also other agents and stakeholders. Sometimes the different constructions and governance mechanisms co-exist and mingle to various degrees. However, there is a significant failure to cooperate, both historically and presently, in the Zambezi river basin. This article underlines the continued relevance of politics, power and national interests/sovereignty in explaining the general failure to design efficient institutions that can solve collective action dilemmas in the Zambezi river basin. One of the key policy messages of this article is that the generation of long-term impacts in the management of transboundary rivers depend on an understanding of national incentives for cooperation in the context of regional cooperation (also see Söderbaum & Granit, 2014; Granit, 2012; Nicol et al., 2001).

Any discussion about how national interests and benefits can be coordinated or reconciled with the regional and common good needs to consider what approach cooperation

is based on. For heuristic purposes, it is fruitful to distinguish between two ideal types of cooperation: functionalist and country-driven versus a more ‘political’ and institutionalist approach to cooperation (Hurrell, 1995; Mansfield and Milner, 1997; Söderbaum & Shaw, 2003). The two models provide drastically different solutions to the collective action dilemma and the way national interests are viewed and coordinated.

One of the characterizing features of the functionalist and country-driven approach is that it offers a clear and visible link between national benefits and regional cooperation. As a result, its effectiveness relies heavily on complementary or converging national interests. The existence of conflict and implementation problems is not denied, but such problems are believed to be solved when they appear. As a result, the functional approach may be able to *avoid* sensitive political issues and conflicts related to national sovereignty, but it is much weaker at *solving* collective action dilemmas related to competing national interests. This is deeply problematic, because as shown earlier in this article, national interests may not necessarily converge over time, even when governments agree to cooperate and sign rather progressive cooperation treaties and protocols (as in the case of the SADC Water Protocol).

The regional and centralized approach has a stronger and more distinct political element. It is more explicit *vis-a-vis* the need for common institutions to deal with political coordination and the collective action problem. One of its limitations is that common regional institutions may be more costly, and that it may be more difficult as well as provocative to try to harmonize national incentives and interests in a more deliberative fashion. It is important, however, to understand that this approach does not necessarily imply that national interests should be abandoned in favor of any supranational interest. In contrast to the functionalist approach, the political-institutionalist approach is based on that power and national interests need to be explicitly coordinated and negotiated (not avoided). Institutions are viewed to be crucial for this purpose since they are expected to lower transaction costs, make defection more costly, and facilitate a coordination of national interests and strategies (hence change governmental behavior), especially over time and in favor of the common good.

Summing up, this article emphasizes that environmentally sound policies will be extremely difficult to achieve if they *compete* with the national interest and national sovereignty. The policy challenge is to design institutions and governance mechanisms that can *coordinate and reconcile* national interest with the common good. This brings us to how such ‘institutions’ and governance mechanisms should be designed.

5. Which Regional Organizations Are Most Appropriate?

There is a long tradition in both research and policy of determining which types of regional organizations and frameworks are most effective in facilitating collective action (Acharya and Johnston, 2007; Mansfield and Milner, 1997). In spite of an explosion of academic research about ‘institutional design’ during the last two decades, this issue has received fairly little attention in the field of transboundary river management, where so-called river basin organizations (RBO) are usually considered the standard solution.

A RBO, such as ZAMCOM (www.zambezicommission.org), is a particular type of regional organization. It is *specialized* on water resource management or river basin-related themes and issues, such as navigation, flood control, fisheries, agriculture, electric power development and environmental protection. The specialized nature of RBOs usually results in an emphasis on functional-technocratic-scientific problem-solving and policy-making, which basically avoids matters related to power, politics and national sovereignty. Needless to say, some RBOs have a rather narrow scope and a weak institutional structure whereas others are more multipurpose and more deeply institutionalized. Nevertheless, most RBOs are essentially based on the functionalist approach and have a much more limited institutional set-up compared to the more comprehensive and *multipurpose* regional organizations, such as SADC and East African Community (EAC). For these reasons, the latter usually have a much stronger political clout than RBOs.

The fundamental issue is twofold: (i) there is a lack of scientific evidence and relevant policy advice about what type of regional organization is most effective for delivering environmental benefits; and (ii) what is the best division of labour between overlapping regional cooperation and governance mechanisms (see Söderbaum & Granit, 2014). One view in the literature, which was also touched upon in the previous section, is that specialized and functional regional organizations will primarily enhance cooperation when national incentive structures converge rather than when they diverge. A closely related view is that specialized and functional regional organizations are believed to be cost effective and less bureaucratic compared to multipurpose regional organizations (which are often seen as over-politicized). The problem from a functionalist point of view is that water management is usually highly politicized and national incentive structures rarely converge, at least not in Africa. In other words, due to the stakes involved in transboundary waters, the political environment is not conducive enough for functionalist cooperation (Söderbaum & Granit, 2014).

Indeed, it is a fact that mutually beneficial solutions and effective project implementation are not always forthcoming and may depend heavily on political support and high-level political coordination. Even if the costs of non-cooperation are very high and visible, the collective action dilemmas are not solved. One of the fundamental problems with the prevailing wisdom in the field of transboundary water management is that many RBOs lack the necessary political clout. This is also the case of ZAMCOM, which is not developed enough to solve complicated transboundary collective action dilemmas or to be able to ensure national political commitment. The lack of implementation and failure to agree on many substantial issues is evidence thereof.

The fundamental challenge is therefore how to mobilize enough political commitment and political leverage in order to better govern and solve the collective action dilemmas in transboundary river basins? There are at least three main options: The first is to strengthen RBOs (such as ZAMCOM), institutionally as well as politically. The second option is for agents to look beyond RBOs for political support and commitment, especially towards multipurpose regional organizations. The third and perhaps most creative alternative is to combine RBOs and multipurpose regional organization in new and more creative ways.

Regarding the first option, increasing the political relevance and strength of RBOs may be the most cost-effective solution. One way this could happen is if governments would prioritize RBOs, or, for instance, if national ministers with political clout could become so-called ‘political champions’ of specific RBOs. Needless to say, it is not enough if only one or a limited number of ministers or governments prioritizes a particular RBO. The difficult task is to also make the governments that usually prioritize their own national interests (the ‘defectors’) to do the same. However, this solution does not appear to be very likely given the amount of resources and attention devoted to develop these organizations during the past three decades. In addition, the problems appear to increase with the number of members.

Regarding the second option, there is clearly a possibility that multipurpose regional organizations may be better equipped than specialized organizations (with lower degrees of political leverage) to facilitate transboundary coordination at higher political levels and to mobilize political commitment and national buy-in. Multipurpose regional organizations have a distinct political content and clout that is closely intertwined with broader economic or security interests, which also enable the exploitation of cross-sectoral linkages (Granit, 2012; Söderbaum & Granit, 2014). Yet, some of the multipurpose organizations tend to be both bureaucratic and politicized, resulting in that implementation is not always their comparative strength.

A third solution would be to combine the activities of RBOs and multipurpose regional organizations. This is very different from the existing relationship between SADC and the RBOs. As touched upon previously, ZAMCOM, the Okavango River Basin Commission (OKACOM), and the Orange-Sengou River Basin Commission (ORASECOM), are all loosely linked to the SADC framework and also serve as implementation mechanisms for the SADC Protocol on Shared Watercourses. However, SADC and the RBOs are poorly synchronized, and, for whatever reason, the necessary political clout is not forthcoming at the level of implementation of agreed policies. By contrast, the links between EAC and the Lake Victoria Basin Commission (LVBC) (www.lvbcom.org) may represent a more interesting division of labour than between SADC and its RBOs. The LVBC was established by the EAC in 2001, as a result of the Lake Victoria Development Programme. Its objectives are to promote, coordinate and facilitate environmental and developmental initiatives and policies within the Lake Victoria basin. Importantly, EAC and its member countries have designated Lake Victoria and its basin as an ‘area of common economic interest’ and a ‘regional economic growth zone’, which links transboundary waters to core economic issues and the multipurpose issues and themes within the EAC. This links basin issues with the core political economy of trade, infrastructure, energy and food security. As a result, the LVBC is deeply integrated within the core institutional structure of the EAC, as a permanent institution of the community responsible for the lake basin. Being part of the EAC provides both a stronger political leverage as well as access to a comprehensive and relevant regional and political framework. This case may be of relevance also for other transboundary waters around the world, especially in Africa.

6. Conclusion

Ever since independence the individual state-building ambitions have been the driving force for perceptions and policies about the Zambezi river basin. Even if the statist and nationalist norms and practices still prevail, during the last two decades the basin is also reconfigured by overlapping and partly competing policies and governance mechanisms, based on ‘environmental’ norms and principles as well as other more ‘commercial’ ways of imagining and governing the Zambezi river basin (for instance in trade and more recently in energy). These different imaginations and constructions co-exist, mingle and sometimes also compete. In this context it is very clear that any collective management of transboundary waters has to take seriously the fact that national interests and national sovereignty cannot simply be wished away. Hence, too much of the discussion around transboundary waters have been plagued by rather naive idealism, both with regard to national sovereignty and national interests, but also with regard to institutional solutions. One of the main messages of this article is that successful and long-term management of transboundary rivers depends on an appropriate understanding of national incentives for cooperation in the context of regional cooperation.

According to conventional thinking, the main challenge in the management of transboundary waters is to find ‘solutions’ to a number of specified ‘problems’ — such as environmentally sustainable development, land usage, hydro-electricity, irrigation, fishery — through rational, scientific or functional-technocratic policies and institutions. This has resulted in a flurry of institutionally weak RBOs that too often lack political clout to be able to solve complex and sensitive collective action problems.

The solution is certainly not simply to design overly centralized regional organizations, which subsumes national interests under a diffuse supranational interest. There is also recent policy evidence that regional cooperation strategies and policies need to be synchronized with national agendas and policies (Söderbaum & Granit, 2014). Hence, a strengthening of regional cooperation mechanisms and regional organizations should not be at the expense of building capacities and institutions at the national level. As a result, the fundamental challenge is to reconcile national interests/benefits and the common good within an institutional design that is able to generate the necessary political leverage.

There is evidence that successful transboundary river management may depend heavily on political support and political mobilization as well as issue-linkages. Indeed, one of the fundamental problems with many RBOs is that they lack political relevance, and that most of them are not designed to deal with out-of-the-basin issues (such as energy, trade, food security). One possibility is that multipurpose regional organizations may be better equipped than RBOs to mobilize the required amount of political commitment and national buy-in in order to facilitate successful cooperation around transboundary waters. Another possibility is that RBOs and multipurpose regional organizations are combined in more creative ways than what is currently case in the Zambezi river basin. The close links between EAC and LVBC was claimed to be relevant for the Zambezi as

well as other transboundary RBOs in Africa. The LVBC is integrated as a permanent institution of the EAC responsible for the lake basin. Being part of the EAC structures provides LVBC with a certain degree of political access and relevance while it at the same time is able to maintain the special features associated with a specialized and functional regional organization.

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