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African river basin organisations
FROM BEST PRACTICE TO BEST FIT

POLITICAL ECONOMY DYNAMICS OF REGIONAL ORGANISATIONS IN AFRICA

PEDRO

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Summary

Transboundary river basin organisations (RBOs) are a specific subset of regional organisations in Africa. RBO membership follows a purely geographic logic with mandates centre around managing a single shared resource. On paper, African RBOs adhere to a consensual and cooperative approach to water resource management between states; in practice, water management is a constant negotiation to deal with conflicting interests and competing claims between upstream and downstream countries.

The influence of external support is unmistakable in African transboundary basin management, yet often fails to engage with the political complexity of transboundary water management. Donor support has long promoted a principled, best-practice approach to water governance through regional institutions. Today, many African RBOs are only partially able to implement their agenda, and with few notable exceptions, member states are reluctant to empower river basin organisations beyond what is necessary to secure their direct interests.

The external environment for African RBOs is changing rapidly, climate finance incentivises the development of comprehensive and environmentally sound strategies, while a renewed appetite for hydropower infrastructure investment is changing the stakes of hydropolitics in many African basins.

In the light of these challenges, African River Basin Organisations, their member states and partners may benefit from a change in perspective from best-practice to best-fit. A problem-driven approach to transboundary water management would allow RBOs and their partners to focus on areas where change is feasible and on specific (sub-)regional problems that can be used to build collective action.

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Introduction

Water management in African transboundary rivers is a complex puzzle of geographic and political factors, of national and regional agendas and often competing interests around an unevenly distributed and fluctuating resource. The political complexity of transboundary basin management is often poorly understood by external partners, who tend to follow a globally agreed normative framework and model for transboundary basin management. Such best-practice approaches are not well adapted to the regional context and often fail to incite transboundary cooperation in practice.

Comparative studies of transboundary water governance tend to look at formal features and 'essential functions' of basin management[1], as a way to manage these differing interests. They focus on the prevalence of specific water legislation and other formal institutions, as well as on transnational decision-making structures, at times mistaking institutional form for actual function. While performance problems of African transboundary water governance are well-documented (Winqvist, 2015; OIEau et al., 2014), much less attention has been paid to 'why' some of these problems are so difficult to overcome, or how to best understand the structural and political constraints that hinder cross-country cooperation.

This policy brief looks at the interests and incentives, and formal and informal institutions that shape cooperation in African River Basin Organisations, focusing on the dynamics between global norms around Integrated Water Resource Management, the financing needs of regional organisations, and national priorities around energy and water infrastructure.

It draws on five case studies carried out over the course of 2017, looking at the implementation of the **SADC water protocol**, the functioning of the **Niger Basin Authority (NBA)**, the **International Congo-Ubangui-Sangha Commission (CICOS)**, the **Lake Chad Basin Commission (LCBC)**, and the **Nile Basin Initiative (NBI)**.

The key questions we address are: What are the factors, interests and incentives that shape water resource management in African transboundary basins? (How) does the changing external environment for transboundary water change or affect this cooperation? And what does this mean for policy makers and external partners?

Different basin countries generally have very different interests and bargaining power, depending on their upstream or downstream location in the basin and their share in the surface and/or groundwater resources concerned. Analysing African Transboundary River Basin Organisations (RBOs) provides a unique insight into the politics and power struggles around regional water management, and to connected policy arenas such as energy, environmental protection. While RBOs have a strong sectoral focus, there may also be lessons for regional cooperation and integration more broadly.

The historical challenge for these organisations is to reconcile actual or intended water use by some countries with the effects this has on the availability of water for others. Over the years, most -if not all- African RBOs adopted best practice models of shared water governance and the principles of Integrated Water Resource Management. This normative policy framework posits that water is by nature a common good that should be shared by the community and implies a *collective*, as opposed to merely a *coordinated* management model of water resources, be it for irrigated agriculture, energy and/or environmental protection (CWLPS, 2012).

[1] See for example OIeau et al., 2014.

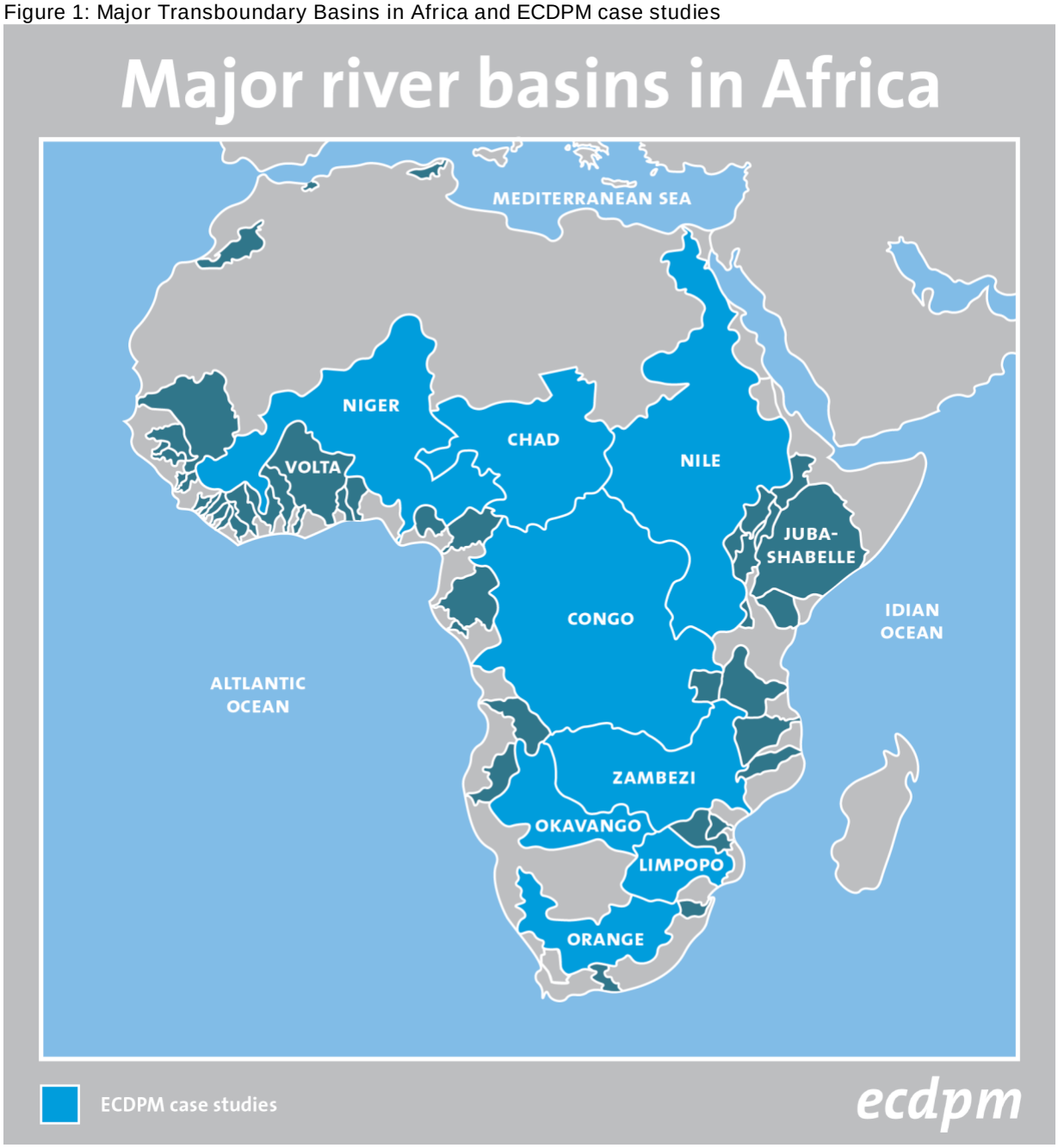
In practice, however, collective management can be very difficult to achieve in transboundary basins as diverse and as conflict-prone as those of Africa. The existence of a River Basin Organisation or even a Basin Authority does not automatically guarantee that collective management will take place. The willingness of states (and communities) to cooperate depends on far more than a logic, a signed commitment, or recognition of mutual rights and interest. At the same time, specific water resource management issues do not always concern the full river basin or watershed. The river basin as a management unit therefore may not always be the most conducive one to deal with all specific resource allocation issues, therefore raising questions for RBOs and the external actors who support them.

The following section in this paper looks at the origins and challenges of transboundary water management in Africa. In Section 2 we identify a mismatch between external best-practice models and national and regional dynamics in African basins; and in Section 3 at recent and ongoing changes to the incentive environment of RBOs. In the final section we look at alternatives to a best-practice approach to transboundary water management, highlighting the value of a problem-driven, adaptive approach to water resource management at different scales.

1. African River Basins: an elusive quest for collective management

Transboundary river basins cover no less than 62% of Africa's total land area and every continental state is part of at least one international transboundary basin (Merrey, 2009). This includes the 13 major transboundary basins that cover most of the continent (see Figure 1).

Figure 1: Major Transboundary Basins in Africa and ECDPM case studies



Water resource management in many of these basins is rooted in the colonial and early independence era of the continent: The Sudan-Egypt Nile Water agreement dates from 1959, prior to Sudanese independence; the Niger Basin Commission was set up in 1964. The dawn of African nation states and new geographic boundaries brought the need for governments to manage transboundary water resources,

navigation, and exploitation in a way that avoided conflict through some form of equitable access[2]. Today, the continent is home to a plethora of bilateral committees, commissions, authorities, which are intended to facilitate transnational cooperation on infrastructure investment, navigation, management of water flows and levels, and in many cases mitigate the risk of natural disasters, floods and even climate change. Some of these initiatives have developed into fully-fledged regional organisations, with varying levels of transnational authority, others exist mainly on paper.

The core purpose of these organisations is to reconcile water usage by some countries with its effects on others. Over the years, most of these river basin projects abandoned conflictual approaches of resource allocation that favour either unchallenged upstream use of water (e.g. for energy generation or irrigation) or a guaranteed downstream intake of water (e.g. Egypt's claim to the water of the Nile). Today most basin countries adopt a more consensual approach which stipulates that all watercourse states enjoy equal rights to the use of shared resources and implies mutual respect of sovereignty and reciprocal rights. More recently, many African Basin projects started exploring 'community of interest' approaches to shared water resources. This assumes that nature is a common good and should be shared by the community, implying a collective, rather than a merely coordinated management model (CWLPS, 2012).

In practice, however, the extent of cooperation varies greatly between the different basin projects depending on the number of countries involved, and their interests, incentives and power relations. When interests do coincide between a (sub-)group of countries, RBOs have the potential to positively affect the lives of millions through climate change mitigation, irrigation works, and energy provision. In other cases, however, RBOs can exist for decades with little or no advances made, or worse, widespread environmental degradation and even conflict, despite the existence of an intermediary structure aimed at convening national positions around a community approach. As in other fields of regional cooperation, domestic politics often trump regional, collective action.

2. A mismatch between Global models and Regional dynamics

While transboundary basin organisations are established by their member states, their recent evolution in Africa is marked by international discourse on sustainable development and external donor support for regional solutions to environmental and economic challenges. Two key assumptions underpin much of the international support to African transboundary basins today: (1) The watershed is the most appropriate level for organising water resource use; and (2) this should be governed transnationally through political-technical organisations. It is difficult to disagree with these assumptions, yet in practice, things are rarely this simple. In past decades, African RBOs have been the scene of a 'best-practice' approach to water governance supported by the international community. However, more often than not this has been badly adapted to the regional and subregional political economy dynamics that shape water cooperation in those basins.

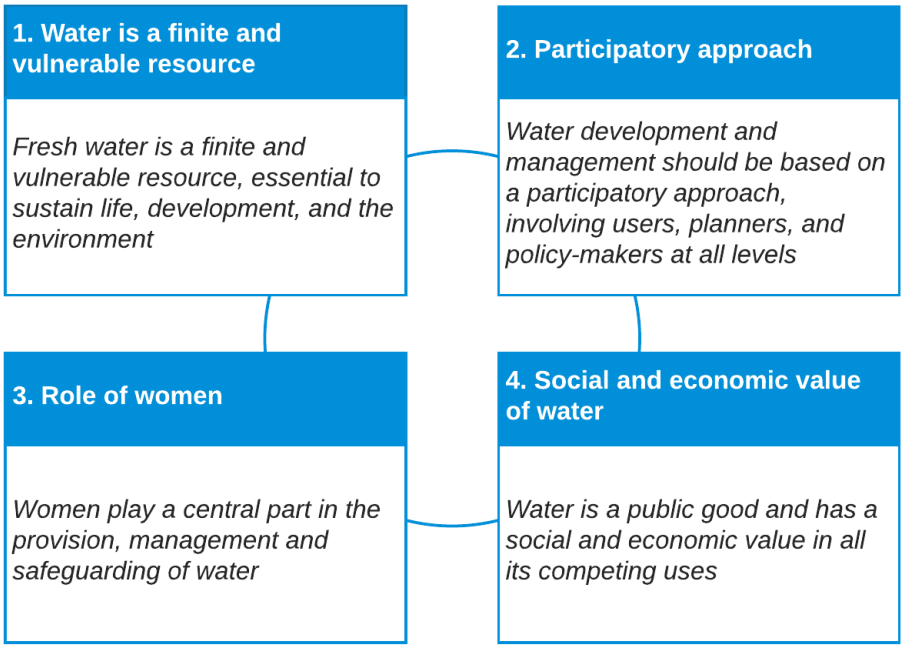
[2] Many basin organisations in Africa therefore have a long history, often dating back as early as the 1950s and 60s, preceding independence and building on colonial agreements. The 1885 Berlin conference for example declared free navigation on the Congo and Niger rivers (Medinilla, 2017a: 6), and Egypt still claims rights to the Nile on the basis of a 1929 agreement between the UK and the government of Egypt (Knaepen and Byiers, 2017).

2.1. Limits of Integrated Water Resource Management (IWRM) and watershed approaches

Most contemporary African RBOs started out as technical bodies for facilitating navigation and mitigating competing claims on water resources between newly independent African countries in the 1960s and 1970s (Medinilla, 2017a: 6). CICOS emerged from the Tripartite Commission between Congo-Brazzaville, CAR and Zaire in 1978 to coordinate navigation on the Congo River, and later the Ubangui and Sangha rivers. This continues to be a core feature of the often poorly institutionalised African RBOs, yet it is now complemented by the more complex policy objectives based on the concept of Integrated Water Resource Management (IWRM).

IWRM[3] is a normative approach to water resource management that promotes equitable use of resources and environmental conservation using a holistic, multi-sectoral perspective and a best-practice multi-level approach to water governance. A product of the early 1990s and the global sustainability agenda, IWRM builds on four principles developed at the Dublin Conference on Water and the Environment (ICWE) in January 1992 and backed by UN member states at the Rio Earth Summit later that year.

Figure 2: Dublin-Rio Principles



Source: Adapted from GWP

The IWRM approach shifts the focus of water governance away from a centralised (national or regional) rational *planning* approach to thinking about basins as *ecosystems*. This entails engaging at a larger scale and with a multitude of stakeholders on agenda-setting, decision-making, problem-solving, compliance, mediation and monitoring. IWRM assigns a critical role to (independent) experts through the use of evidence-based planning, cost-benefit analysis, etc. It also suggests more international collaboration, while at the same time promoting local control, public participation and stakeholder involvement (Huitema & Meijerinck, 2017: 42).

[3] GWP defines IWRM as *"a process which promotes the coordinated 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).

There is a clear trend in all the RBOs studied of adopting a principled and multidimensional approach to water management. In certain cases such as CICOS in 2007, RBOs are also given an explicit IWRM *mandate*. The NBI's sustainability framework (NBSF) also draws on the principles of IWRM and "good practices in transboundary water resources management" (NBI, 2011). In many RBOs this is also complemented by specific donor-funded IWRM programmes or action plans. Examples are the IWRM Action Plan in LCBC and several IWRM (GIRE 1 and 2) projects in the Niger Basin Authority.

Over the years, IWRM has dominated the discourse in water management in Africa and beyond[4]. By the early 2000s, most (European) donor agencies had adopted IWRM as the guiding narrative and policy framework for their water-related support strategies in Africa (Mehta et al., 2016). In Africa, IWRM is also endorsed and promoted both by the international community and African Regional organisations. The Africa Water Vision 2025 adopted by the AU in 2000 calls for "Regional and national strategies (…) to implement water policies based on integrated water resources management principles" and "Adopting the river basin as the unit for water-resources management" (African Union, 2000). The African Ministers' Council on Water (AMCOW) in turn has the mandate to provide the necessary political leadership and oversee the process. The African Network of River Basin Organisations (ANBO)[5], supported by i.a. the EU SITWA project[6], promotes IWRM principles and supports RBOs to enhance transboundary water resources management.

Key donors pushing for an IWRM approach at basin level include the EU (including through the ACP-EU water facility), Germany (BMZ and GIZ), France (AfD), the World Bank (through its CIWA project), and the AfDB. The IWRM narrative and principles are further heavily promoted by global and international institutions including UNWater[7], the Global Water Partnership, the French Office International de l'Eau (OIEau), which is very active in Francophone Africa, and International NGOs such as IUCN and WWF.

As this suggests, IWRM has taken on an ever-important role in shaping river basin agendas, with implications for what then takes place through river basin organisations and why. IWRM however also stands for a fundamentally technical approach to water resource management which often ignores the politics that are at the core of decision-making on the allocation and use of water resources (Giordano and Shah, 2014: 365). While the doctrine of IWRM remains ever-present in African basin policies and RBOs, there is a growing body of literature that suggests that a too rigid or generic approach to water resource management may in fact be counterproductive in light of the actual complexity of water resource management (Lankford et al. 2014; Mukhtarov and Cherp 2016; Muller 2018; Merrey 2009).

The dominance of the river basin as the most appropriate scale for action is also increasingly questioned. By designating the watershed as "the most appropriate geographical entity for the planning and management of water resources" (ICWE 1992), the dublin principles also altered the incentive environment for many Basin projects and RBOs in Africa, as funding sources increasingly privileged the river basin as a management unit. Over-reliance on the basin level however also risks ignoring existing mechanisms for water resource management at local level (Merrey, 2009). Muller argues that there is often a mismatch between scale and function, and that in many contexts, the basin scale is of limited relevance to decision

4 For a global perspective, see: Mukhtarov and Cherp 2014

5 ANBO is part of the Global 'International Network of Basin Organizations (INBO) and has been made a sub-committee of AMCOW in matters relating to Transboundary Water Resources Management (TWRM) in 2007.

6 The EU funded SITWA project (Strengthening the Institutions for Transboundary Water Management in Africa) is implemented by the Global Water Partnership Organization (GWPO) in partnership with the ANBO Technical Secretariat, currently hosted by the Organisation for the Development of the Senegal River (Organisation pour la Mise en Valeur du Fleuve Sénégal – OMVS).

7 The United Nations inter-agency coordination mechanism for all freshwater related issues for example regularly publishes status reports on the application of IWRM.

making (2018: 6). Real negotiation takes place at different scales, be it within or between states, and management functions tend to be spread over local, national, regional institutions. This is also the case in many of the RBO case studies in this project, and indeed reflected in the importance of sub-basin dynamics and negotiations in the Nile, Congo and Niger basins. From a purely normative perspective this may be seen as a problem, a reluctance to properly implement regional commitments, in practice however, polycentric governance is a reality in many transboundary basins, and the . Several authors call for rescaling water resource frameworks from the watershed to a "probemshed", which could be understood as a spatial entity where issues and actors coalesce, and around which collective action can be organised (Mollinga et al. 2007).

This shift in thinking is to some extent also recognised in the 2015 OECD principles for water governance, which recognise that "there is no one-size-fits-all solution to water challenges worldwide, but a menu of options building on the diversity of legal, administrative and organisational systems within and across countries" (OECD 2015).

The following paragraphs look at the tensions that arise when applying a technical and best-practice approach to the profoundly political challenge of water governance, and the interests and incentives that drive decision making in practice.

2.2. Tensions between best-practice water governance and a good-fit approach

Experts and donor agencies often favour transnational solutions over ad-hoc bilateral or trilateral arrangements, both from a normative point of view and for reasons of scale. IWRM inspired policies for RBOs offer such solutions and have gradually evolved into a best-practice template that has been applied in a variety of basins, often disregarding the existing political and (sub-)regional reality of water governance.

Although there are important differences between the roles of river basin organisations, most African RBOs follow a similar institutional model. RBOs tend to be established as permanent treaty-based international organisations, steered by a heads of state summit and/or council of ministers, with a technical and administrative secretariat. In the 1990s and 2000s many African RBOs, including LCBC, ABN, OMVS, and SADC[8] started adopting or renewing specific legislation in the form of a water charter or protocol. These documents generally reflect the same idea that "the watershed" or basin is the appropriate scale for organising water resource management, and gives broad principles for what this management should look like. This is in most cases accompanied by the 'shared vision' or strategy and a joint action plan outlining specific measures and projects.

However, the five case studies identify significant tensions between the formal adoption of regional agreements and institutional frameworks and the actual implementation and practice in African RBOs. In some cases, basin-wide solutions clash directly with member state interests. In other cases, IWRM-inspired solutions co-exist uneasily with the historic function of RBOs as a negotiation platform between member states. In both cases implementation is delayed because RBOs often do not have the supra-governmental authority to make regional agreements work in practice even if it is within their mandate.

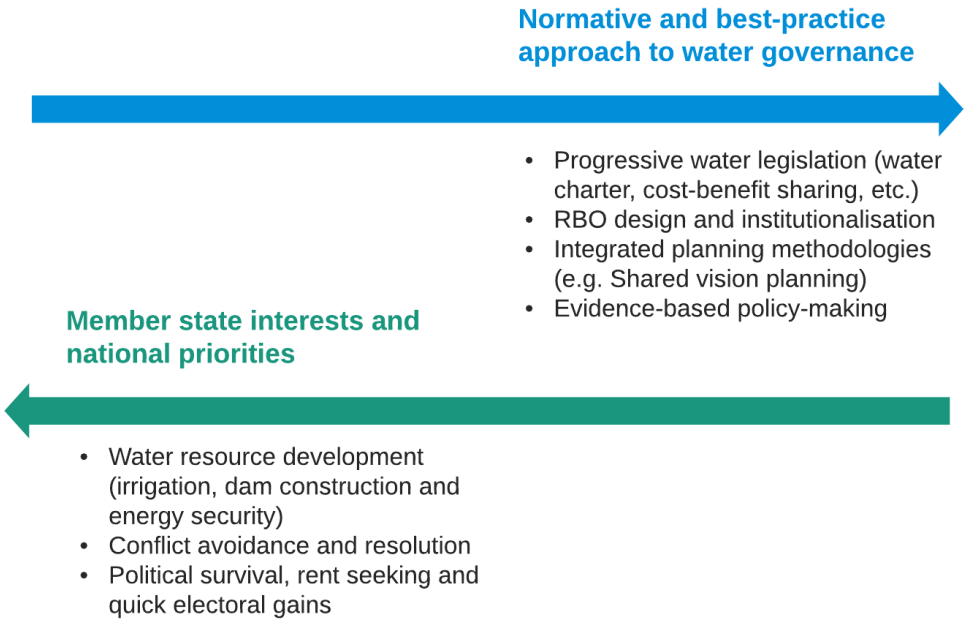
[8] In development for CICOS (water charter)

2.2.1. Normative models vs. member state priorities

The above tensions shape the way in which RBOs operate and how their agendas are implemented or not. Case studies generally reveal a significant discrepancy between the normative and best-practice driven approach at the policy level, and a more interest driven approach to cooperation and coordination in practice. This makes it difficult, if not impossible, to assess RBO performance or political 'traction' on the basis of their own stated objectives.

IWRM and the prevalence of best-practice approaches to water resource management pushes RBOs and their member states to adopt progressive shared water legislation (water charters), institutionalise water management in RBOs and adopt evidence based and integrated planning and policy-making. At the same time, however, national interests and short-term political interests often pull member state governments in the opposite direction, prioritising (sub)national developmental objectives such as dam construction, irrigation schemes. When it comes to these major political projects, the regional level is rarely - if ever - in the driving seat. RBOs instead function as negotiation platforms between neighbouring countries.

Figure 3: Tension between normative and best-practice approaches and national interests and priorities



Source: ECDPM

In some cases, member state government interests can be so far removed from the collective objectives of an RBO that they will actively seek to debilitate the regional organisation or to delay any form of collective decision-making. This was long the case with Nigeria in the Niger Basin Authority, which sought to prevent upstream dam development on the Niger river to protect its own downstream infrastructure. As the regional hegemon, Nigeria dominated the NBA's internal governance and its continued institutional weakness played into its favour. Only in recent years these tensions were somewhat relieved as a negotiated compromise was reached in 2008 (Medinilla, 2017b).

In other cases, regional policies and initiatives had to be reversed because national interests refrained from empowering regional institutions. The first iteration of the SADC water protocol (1995) for example called for setting up joint institutions (RBOs) which would take over management of the four major shared

watercourses[9] with a degree of authority over member state actions in the field of water resource use. This largely failed to materialise due to limited political interest, and the protocol was eventually revised in 2000, in line with the more intergovernmental approach of the UN Watercourse Convention (1997). The revision also reflected a stronger infrastructure development agenda, as opposed to a purely environmental or conservational one. The main river basin commissions in the SADC region[10] that were set up in the 1990s and 2000s today play an advisory role at best while actual water management is done by member state agencies. The SADC water division in turn acts as a convener or facilitator of regional coordination, and most of all as a channel for donor funding to the region's RBOs (Woolfrey and Müller, 2017: 8).

The LCBC also illustrates the tension between short-term member state interests and the long-term objective of integrated water resource management. Many analysts tend to see the dramatic reduction of Lake Chad as a complex hydrological phenomenon, that could even be cyclical (Magrin, 2016), and prioritise securing the influx of water from the lake's southern affluents located in the Central African Republic, Nigeria and Cameroon. The LCBC and its member states in turn advocate for a more dramatic solution by transferring water from the Ubangui river in the Congo basin over a 2,400 km long canal (Caramel & Tilouine, 2018). Plans for such a transfer have been around since the 1970s and donor agencies have always been reluctant to commit funds, but in 2018, a Chinese partner has been found that could still make this a reality. Even if the environmental impact of connecting two very different ecosystems is difficult to foresee, LCBC member states are advocating for this project at the very highest level. Nigerian President Muhammadu Buhari even called it the greatest investment Europe and the United States could make in Africa (Ogunmade, 2018). For member states after all, the Lake Chad crisis is a security crisis, as much as it is an environmental one. The recharging of Lake Chad is a major component in the fight against Boko Haram in the borderlands between Niger, Chad and Nigeria and the rapid development of the region is seen as a way to regain control and offer a viable alternative to the affected populations.

2.2.2. Technical approaches vs. political agendas

On paper, most African RBOs subscribe to evidence-based policy-making and participatory planning using technical hydrological modelling as a basis for planning interventions at scale. In practice however, this approach is often in competition with member state interests, which tend to be reluctant to transfer decision-making towards the regional level, or to based negotiations on data and participatory planning. The interplay between a political and technical track is a feature of most transboundary RBOs, and tensions between the two are very common. In the case of the Nile Basin, for example, because of political tensions, the two are explicitly separated, with the technical cooperation aspect dealt with through the NBI, and the political negotiations, dealt with by heads of state in a separate process (Knaepen and Byiers 2017).

[9] The four major river basins in the SADC region are the Okavango, the Orange-Senqu, the Zambezi and the Limpopo river basins. For each of these river basins an RBO has been established.

[10] The Permanent Okavango River Basin Water Commission (OKACOM, 1994), The Orange-Senqu River Commission (ORASECOM, 2000), The Zambezi Watercourse Commission (ZAMCOM, 2004), and The Limpopo Watercourse Commission (LIMCOM, 2003).

The practice of Shared Vision Planning (SVP) in many transboundary basins11 illustrates this tension between member state political interests and a the technical regional process. SVP is a participatory planning process using technical hydrological modelling to weigh the benefits and consequences of any planned intervention. The idea is to get to develop a consensus-based and timed plan for the development of basin infrastructure and other water-related projects. As a common, best-practice approach in the sector, many RBOs have gone through a SVP in recent years (NBA, LCBC, NBI, CICOS). In principle, this approach allows technical knowledge to inform political decision-making.

While most basins have written down a shared vision, ownership of this process varies significantly. In only a few cases, SVP has clearly been a real interest-driven negotiating process based on new information and scientific evidence. This was the case for example in the Niger Basin countries, where the SVP process sought to reconcile conflicting upstream and downstream interests. In other cases, SVP appears to be more an administrative consultation and planning process for listing potential programmes, or worse, a tick-the-box exercise. In CICOS, for example, the 'shared vision' calls for working in solidarity to make water a driver for economic growth, but at the same time, its member states explicitly limit the contracting authority and asset management powers of the RBO and de-prioritise actions relating to basin governance. In the 2000s, the NBI's 'shared vision' is widely seen as having been pushed by the World Bank and was increasingly challenged by hydropower and irrigation development outside the framework of the NBI, leading the organisation to narrow its focus on these developments, at the expense of its broader stated agenda. Development of the Grand Renaissance Dam in Ethiopia also clearly undermines any pretence at a 'shared vision'.

These examples illustrate that while normative and best practice models' policies may make sense in theory, in practice they only partially cover the member state preferences and interests they seek to bring together. When interests are misaligned, the formal features of transboundary cooperation may be put in place, often as part of external support programmes, yet actual cooperation does not necessarily follow.

Over-reliance on normative and best-practice models therefore risks obscuring the most critical component of the geopolitics of water: member state interests and incentives. Interests in African transboundary water cooperation are not collectively articulated at a basin-level but by their respective member states. With only few exceptions, member states are very reluctant to empower supranational organisations such as RBOs (but also RECs for that matter) beyond what is absolutely necessary to secure their direct interests. This in itself is not a problem, however, external support often fails to fully grasp what drives member states positions and interventions in regional water cooperation. Donor agencies tend to frame problems in terms of capacity constraints or lack of political will without questioning the validity of the linear best-practice model they pursue themselves. In many cases this has led to support for a broad and integrated agenda that fails to materialise and sometimes masks the real interests and power dynamics that are at play.

2.3. An externally driven agenda

The influence of external support in African transboundary basins is unmistakable, both in the agenda setting and governance structures and functioning of RBOs. Most of the RBOs reviewed showed a high degree of "signalling", where formal systems, legislation, institutional frameworks are put in place that suggest a degree of regional agency, but in practice, only a limited number of domains are effectively being implemented. The limited extent to which IWRM takes place illustrates this. Examples of transnational

[11] Shared Vision Planning is an approach that was initially developed by the US Army Corps of Engineers following the 1988 North American Drought, it has subsequently been adopted by the global knowledge community and adapted by organisations such as the GWP, INBO, etc.

governance in the narrow sense of the word -i.e. actions that directly stem from these international commitments- are indeed scarce. In reality, the transnational authority and power of initiative of African RBOs remains very limited.

In some cases, the institutional architecture is a direct transposition of a foreign model for RBO governance. In practice, this does not automatically translate into new forms of cooperation. CICOS, for example has been called a transposition of the model of the Central Commission for Navigation on the Rhine (CCNR), and indeed, CCNR experts were involved in the UNECA-led process leading up to the establishment of the organisation. Cooperation on transboundary navigation in the Congo and Ubangui rivers bears little to no resemblance to the dynamics on the Rhine. Similarly, the choice to relaunch the Niger River Commission as the Niger Basin Authority in 1980 was partly inspired by the success of the OMVS in setting up shared infrastructure of which member states share both the costs and benefits. Yet while over the years, formal legal systems have been developed to enable a similar joint management of infrastructure through the ABN, there is no strong incentive for member states to also apply this in practice, even if dams are being built. This risks making the whole process a self-serving or futile bureaucratic exercise.

These examples illustrate how difficult it is to apply best-practice models to regional cooperation. While commitments are made and cooperation mechanisms can be put in place, when it comes to actual implementation, member states often push back because it may go against their direct strategic interests, or simply may limit options in the future.

A closer look at the incentives for regional cooperation reveals that external financing is an important pull factor for setting up regional structures and cooperation mechanisms. Donor agencies favour solutions at a regional scale, and generally adhere to a watershed approach for supporting water-related projects, including infrastructure, irrigation works, etc. In doing so they have altered the incentive environment for regional organisations and their member states, which can signal support for a regional organisation and an integrated approach to water resource management, even if their interests are much more narrowly focused on the national level. Western financing, even for national initiatives, is more likely to be approved if it is framed as part of a transboundary or watershed approach. This certainly applies for major projects like dams, given the downstream impact of any such infrastructure, but also for smaller projects which would only indirectly concern neighbouring countries.

Member states also see the basin level as an opportunity to raise funds for national projects. The transaction costs for ‘regionalising’ projects tend to be fairly low, and as the actual (contracting) authority generally remains with the national implementing agencies, it often requires little more than sharing plans with the regional level. Some RBOs simply aggregate national infrastructure plans in a regional investment plan. In practice, therefore, some of these regional activities are regional in name only, especially when regional steering is limited.

In short, member states approach transboundary basin organisations with suspicious hesitation, but also with a high degree of pragmatism when shopping around for funding opportunities.

3. A changing environment: Climate change adaptation and the race for hydropower investment

In recent years, the external environment for African Basin Organisations appears to have changed significantly, and external attention to RBOs as regional governance units is growing. This offers new opportunities for external financing, as well as new challenges for transboundary cooperation in practice.

If IWRM was the global buzzword of the 2000s, climate change adaptation is the leitmotiv of the 2010s. The risk of water conflict (for example in relation to the reduction of Lake Chad) put the issue of water diplomacy high on the international community's agenda, and an ecosystems approach makes transboundary river basins a key unit to drive the resilience and adaptation agenda (Blumstein, 2016). Several RBOs were present at COP21 and COP22, and used the occasion to secure funding commitments of donor agencies. In 2018, the Niger Basin Authority for example, secured USD 110 million from the Green Climate Fund for its Climate Investment Plan, complementing funding from the AfDB, EU and World Bank (Africa Now, 7 November 2018).

From an environmental point of view it makes sense to develop climate adaptation strategies at a basin or ecosystem scale. Transboundary cooperation can in principle widen the range of adaptation efforts (UNECE and INBO, 2015: 3) and given that water is a critical element in any adaptation strategy, coordination between riparian countries is all but a requirement. In recent years, climate change adaptation has opened new financing opportunities for African RBOs and institutions like UNECE and INBO support RBOs in developing bankable projects. While this opens new opportunities for greater cooperation, not the least in the climate change affected basins in the Sahel, it may also further inflate the regional agendas of RBOs. Climate change adaptation initiatives should also be careful not to assume that the existence of formal institutions at regional level is a guarantee that coordination also takes place at that level, or that the RBO in question is also in the driving seat when it comes to implementation.

At the same time, Africa is experiencing a **renewed momentum for investment in African energy infrastructure**, including hydropower. This is partly informed by the growing electrification deficit in light of rapid urbanisation and population increase across, but is in no small measure the result of Chinese expansion into the renewable energy market in Africa. New investment prospects are breathing new life into long dormant mega projects on the African continent. This includes the Ethiopian Grand Renaissance Dam[12], which is under construction since 2011, but also the Inga III project in the Congo basin. The World Bank abandoned the project in 2016 but late 2018 an exclusive agreement was signed with a Chinese-Spanish consortium to start the initial studies for the construction that is estimated at USD 14 billion (Jeune Afrique, 17 October 2018; Le Monde, 17 October 2018). Chinese state-owned Powerchina also committed USD 1.8 million for the feasibility studies of the proposed interbasin transfer between the Ubangui river and Lake Chad. The Company also signed a Memorandum of understanding with the LCBC to that effect (Galeazzi et al., 2017: 15).

While western funding, particularly through the World Bank is often conditioned on a strong transboundary coordination element, this is not necessarily the case with Chinese and other investors who prefer to deal directly with governments. At the moment the GERD is one of the few African megaprojects that is well advanced, largely due to the unique political backing and financing model of the Ethiopian government, based entirely on domestic resources. The scale of infrastructure development however is changing rapidly

[12] The GERD is largely financed by the Ethiopian government through selling bonds, while the hydropower infrastructure is financed by the Chinese government (Abtew and Dessu, 2019).

and competition increases with each new contract that is signed. Africa's estimated hydropower potential is 283 GW or close to 8% of the global technical potential (International Energy Agency, 2014: 56), but less than 10% is currently being used. Africa's demand for electricity is constraint by limited supply13, that said between 2000 and 2012 Sub-Saharan African demand increased by no less than 35%.

The economic viability of hydropower hinges on commercial considerations. In the current climate, only a portion of the technically feasible projects are also commercially viable (Ayemba, 2017). The availability of foreign funding is altering this situation. It is also a double-edged sword. On one hand, it promises significant opportunities for the underdeveloped basins in Africa to harness the power of major rivers for economic development. On the other hand, it also comes with a risk of renewed tensions between riparian countries, and social and environmental conflict.

Energy generation is also just one part of the puzzle. The 44 GW Grand Inga project in the Democratic Republic of the Congo (DRC) for example accounts for more than 15% of the continent's technical potential, yet Central African grids are far from capable of absorbing the projected production. Instead, South Africa's department for energy has a 2,500 MW stake in Inga III, the first stage of Grand Inga (Sanyanga, 2018), and discussions with other countries are ongoing. In that sense, the project has a truly continental scope, but it also shows that the commercial deals between countries are the first and most important consideration in hydropower development.

As more projects move from the drawing board to implementation, the need for regional oversight increases. RBOs may appear to be a natural fit to facilitate, but in practice their influence over member state agendas can be much weaker than often assumed. Regional institutions and policies do not necessarily equal a regionally defined agenda.

4. From Best Practice to Best Fit: a problem-driven, adaptive approach to transboundary basin management

The context for African RBOs therefore is changing rapidly, both in terms of financing, and in the stakes in African hydropolitics. The general trend in RBOs however is one of continued agenda inflation, with the danger described above of institutional forms being adopted without being able to do as intended. Donors and experts systematically confuse form with function and overestimate regional agency, simply adding to the list of best practices to adopt.

ECDPM's case studies illustrate that in large transboundary basins, applying an idealised form of IWRM is unlikely to succeed. IWRM inspired water management policies are designed to reflect the complexity and 'mosaic nature' of water-related problems. They also give managers and practitioners a long list of predefined (simultaneous) activities to follow (Lankford et al., 2007). In practice, however, collective action often fails to take place due to competing or conflicting interests across boundaries, sectors and actors. The envisioned continuum from the Dublin-Rio principles to achieving integrated management through effective implementation of basin-wide programmes therefore may only exist in the minds of basin management experts.

[13] Poor electrification rates and infrastructural deficiencies result in people and businesses not having access or not being able to use as much as they would want, which makes it difficult to measure demand in a holistic sense (IEA, 2014: 39).

The dominant institutional best-practice approach to RBOs has also increasingly come under pressure for its limited track record in guiding institutional change and producing tangible results. Merrey and Cook (2012) challenge two key assumptions of this approach, namely (1) that basin stakeholders are entrepreneurs that will rationally use their social capital to develop institutions; and (2) that organisations can be designed on the basis of blueprints. In reality, while the institutional design choices of certain RBOs, may well characterise successful institutions, they provide only very limited guidance on how to effectively promote and foster effective cooperation in other basins (Merrey & Cook, 2012).

Lankford et. al (2007) advocate for a fundamentally different approach to basin management, one that revolves on the identification of specific problems for cooperation and collective action. Rather than a principled or 'idealised' approach to IWRM, they propose to focus efforts on specific problems, and develop operational programmes not on the basis of an 'ideal' comprehensive strategy but in a way that practically addresses and makes use of specific problems to build up a degree of agency around shared water resources. This corresponds with the idea of a "problemshed" as opposed to a generic watershed approach. Problem-driven approaches can then be used to inspire an adaptive water resource management strategy and to address new or more fundamental problems.

A problem-driven, adaptive approach to water resource management differs from an 'idealised' IWRM approach in a number of ways:

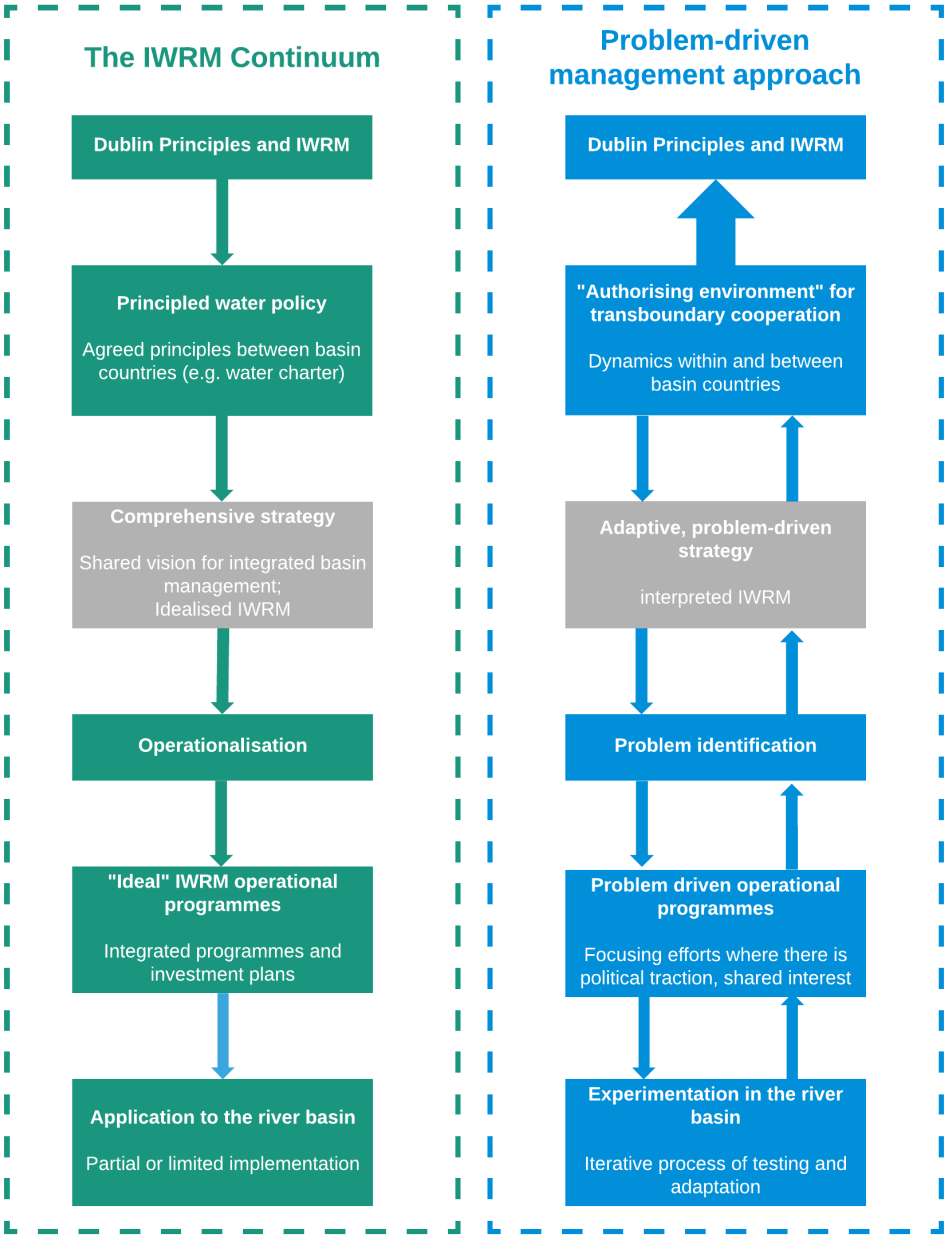
1. It starts with the **identification of a problem area (problemshed) that has strong developmental impact**, and which has potential for mobilising a coalition of stakeholders around it. For this to emerge, one has to abandon a best-practice approach, and go for good enough approach that ensures that the minimal conditions are in place for political and sectoral advances to take place;
2. It recognises that any form of implementation is a **balancing act between the 'ideal' approach and feasible solutions** to specific problems (Lankford, 2007: 8). This is in line with what Grindle (2011) calls 'good enough governance', namely ensuring it recognises that a fixation with 'implementing IWRM' is not always useful, as it can paralyse progress, even if there is partial traction for change (Mosello et al., 2015: 15);
3. It recognises the **value of partial change and short-term iterative learning** cycles and eschews overreliance on long-term planning and social engineering;
4. It adopts a gradual and often localised approach to improving the environment for cooperation.

A problem-driven approach, while it alters the way in which water resource management is conceived, does not preclude a role for RBOs. Instead, it may offer opportunities for a new form of regional agency. By shifting attention away from achieving an idealised approach, a problem-driven one may even relieve pressure on RBOs and their members as it changes the measure of effectiveness of an RBO from achieving full institutionalisation to its capacity to frame and address specific (political) problems.

Figure 4 below contrasts an idealised and linear IWRM approach with a problem-driven approach, and applies this to transboundary water management specifically. An idealised IWRM approach consists of a continuum from the Dublin-Rio principles to implementation at the scale of a river-basin. It prioritises comprehensive strategies that link all the different dimensions of water use and management on the basis of objective criteria and scientific evidence. A too orthodox approach to IWRM has shown to be a rather theoretical and self-serving exercise in African basins, because it often fails to fully grasp the interests and incentives that underpin the political and cooperation dynamics in a basin.

A problem-driven approach instead hinges on a much more pragmatic form of problem definition, based on the recognition that change and collective action cannot simply be imposed. Instead it focuses on specific problems for which the 'authorising environment' or the power dynamics between and within countries permits a deviation from the status quo. This requires a far greater understanding of the interests and incentives behind national decisions and positions, member states' resistance to reform, and their reluctance to engage. A problem-driven approach may also help avoid the persistent capability traps that RBOs are facing by focus attention and energy on those areas where change is feasible and where interests do align.

Figure 4: Problem-driven vs. integrated water resource management



Source: Adapted from Lankford et al., 2007

ECDPM's case studies sought to identify such areas with potential traction for deepening cooperation and the factors that can produce gradual change in regional cooperation. In doing so, we tried to identify critical transboundary dynamics, or 'useful problems' that can be used to deepen cross-border or basin-wide

cooperation in practice. While this is inevitably very case-specific, two trends can be observed that support this analysis: The critical role of technical and knowledge functions of RBOs and the existence of specific sub-basin or cross-border 'problems' that can form the basis of an adaptive, problem-driven approach to transboundary basin management.

4.1. Technical solutions can be used to unlock political problems

One of the premises of most RBOs is the centralisation of technical knowledge and hydrological modelling. In many African basins, data remains a major problem so parties fall back on ad-hoc information for decision-making. Where the political debate is stuck, new reliable and legitimate data can in principle contribute to appease opposition or even build consensus. In the Niger Basin, for example, negotiations on the basis of multiple infrastructure scenarios were able to unlock a decades-long opposition between downstream Nigeria and upstream countries on infrastructure in Niger, Mali and Guinea. Similarly, in the absence of a real legal basis for its operations, the NBI was able to fill a critical knowledge gap with the development of a Decision Support System (DSS), an analytical and modelling tool developed between the NBI and member states[14]. The NBI continues to profile itself as a knowledge broker and has been able to carve out a trusted and legitimate place for itself in the extremely tense environment that is the Nile basin.

In contrast, a shortage of reliable technical expertise and data can exacerbate problems. In the case of Lake Chad, for example, the idea to refill the receding lake with water from the Congo river basin has brought a sparkle to the eyes of engineers and politicians since the 1970s, and LCBC countries are moving forward in partnership with the Chinese Dam giant PowerChina (Celani, 2017). Any decision on this highly contentious plan would require not only extensive analysis on the long-term impact on the respective basins and ecosystems, but also an informed negotiated compromise between the parties involved. The minimum conditions for this may not be in place.

Successful knowledge brokerage requires a certain degree of regional agency, which can be difficult to support and to maintain. At the same time, empowering the regional level to provide technical knowledge services with some autonomy can also be less politically sensitive to achieve than more ambitious regional agendas such as common infrastructure and maintenance works. Many African RBO administrations are also highly politicised, which can significantly reduce their effectiveness. In such a context, focussing efforts on fostering the continuity and effectiveness of the knowledge functions of RBOs may provide a greater return on investment than a top-down blanket approach to organisational capacity development.

4.2. Sub-basin 'problems' can produce collective action

The scale of African basins is a major constraint for transboundary cooperation. The orthodoxy of the watershed as a management unit can shift attention away from specific problems and prioritise form (institutionalisation) over function (water resource management). The NBI has no less than 10 member states; The NBA has 9, of which 4 are highly reliant on the flow of the Niger River. While full collective management may still be a distant dream for many of these river basins, cooperation can be built up gradually through bilateral and sub-basin arrangements where interests align more directly between countries.

[14] The NBI DSS is used for getting a stronger shared understanding of river behaviour and to evaluate the impact of different intervention scenarios.

Most RBOs promote sub-basin cooperation, at least in theory. A bottom-up, spatial approach to transboundary water is often more feasible due to proximity and more articulated shared interests between bordering regions and countries. Tensions in the Nile basin for example have severely hampered negotiations on a basin-wide Comprehensive Framework Agreement (CFA), yet change could still take place under two subsidiary action plans for the Nile Equatorial Lakes (NELSAP) and the Eastern Nile (ENSAP). The Subsidiary offices have developed an impressive portfolio of transboundary projects, which have the potential to build trust and momentum from the bottom-up, even if the political process remained in a deadlock.

RBOs can also build on pre-existing transboundary arrangements to advance cross-border cooperation. In the Congo basin, for example, the shared waterways between DRC, Congo, and CAR and the Malebo Pool that connects Brazzaville and Kinshasa could be seen as potential stepping stones for future cooperation and opportunities for strengthening the RBO's agency in supporting and facilitating cooperation.

In all ECDPM's case studies, specific, sub-basin dynamics came up as either concentrations of transboundary cooperation ('hot spots') or potential levers for heightened cooperation. In the case of the Lake Chad basin, the southern Chari-Logone subsystem, shared between Chad, the Central African Republic (and to a lesser extent Sudan and Cameroon) for example could warrant more attention. It is the key natural replenishment factor of Lake Chad (Magrin, 2016: 208) as well as the access point for the inter-basin transfer scenario the LCBC is pushing. In the Niger basin, finally, the planned Fomi Dam in Guinea, across the border with Guinea can be considered a critical transboundary project combining a range of strategic interests for both Guinea (energy) and Mali (irrigation and flow regulation).

Conclusions

RBOs are at the intersection of (sub-)regional integration and global environmental agendas and knowledge networks. Since the 1990s, external drivers have been a primary force behind the development of a normative framework for water cooperation globally, which has been translated into national and regional legislation and a set of semi-standardised governance mechanisms for cooperation in transboundary basins.

The normative model and organisational blueprint that is promoted by the international community however often fails to reflect the real power dynamics, interests and incentives within and between basin countries. Formally, RBOs have gained much prominence in the past decade, regional agendas are often unevenly owned by member states and/or reduced to a mere fundraising narrative. Overestimating the political traction of RBOs entails significant risks, as it may mask or deflect attention away from the institutional and organisational capabilities of regional organisations to solve water challenges, drive regional agendas, and ensure compliance by member states.

African RBOs experience significant agenda inflation, which appears to stem from a combination of aspirational policy making (developing systems in anticipation of a future transfer of power) and signalling (adopting principles and policies in response to outside incentives). Either way, most African RBOs are only partially able to implement their agenda. In absence of a strong incentive, member states are often reluctant to empower river basin organisations beyond the bare minimum that is needed to maintain the RBO as a negotiating platform and fundraising channel. With few exceptions, member states confidence in the ability of African RBOs to secure their interests is very low, leading to a paradoxical situation where member

states blame the regional organisations for not having the authority they themselves are reluctant to transfer.

At the same time, the external environment for African RBOs is changing rapidly, climate finance incentivises the development of comprehensive and environmentally sound strategies, while a renewed appetite for hydropower infrastructure investment is changing the stakes of hydropolitics in many African basins. As age-old infrastructure plans become increasingly viable, the case for RBOs as a regional facilitator and negotiating platform becomes stronger.

In the face of these new challenges, support to African River Basin Organisations may benefit from a change in perspective from best-practice to best-fit. A problem-driven approach to transboundary water management would allow RBOs and their partners to focus on those areas where change is feasible and on specific (sub-)regional problems that can be used to build collective action. Technical solutions can be used to unblock political problems and opposition between basin countries. As more new infrastructure deals are being struck, the knowledge needs in transboundary basins increases. Strengthening technical, investigative and communication function of RBOs for example can be a stepping stone towards regional knowledge brokerage, and can be more feasible than a formal transfer of responsibilities towards the regional level. Similarly, concrete opportunities for regional action often exist at the sub-basin level. Specific cross-border problems can be used to develop a functional role for RBOs as an independent intermediary structure with added value over purely bilateral arrangements. Taking a bottom-up approach focused around specific problem areas is more likely to get the necessary political support than a generic top-down model, even if the resulting solutions are less than ideal. Partial change is often better than no change.

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