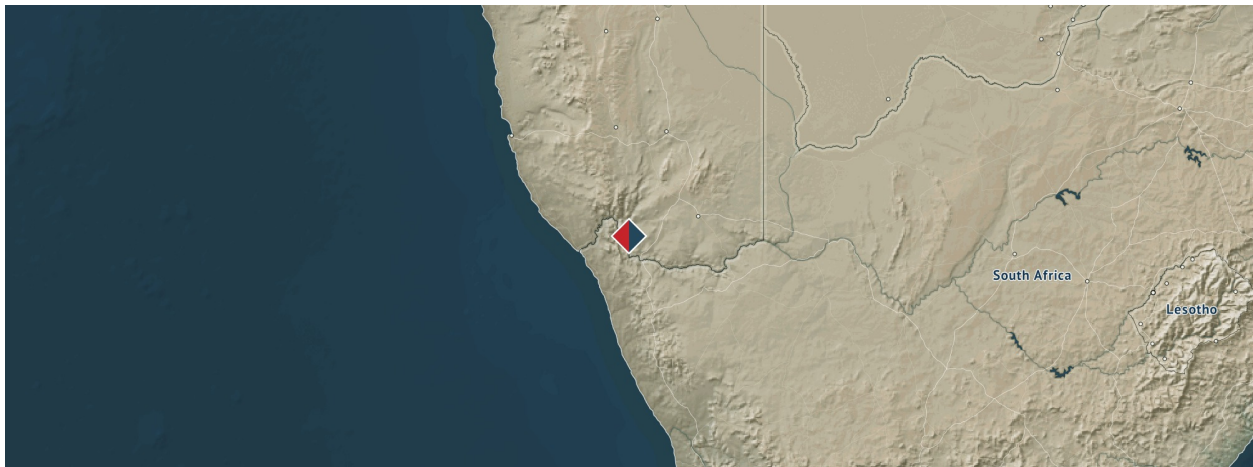




Conflict Factsheet

Transboundary Water Disagreements between South Africa and Namibia

Type of conflict	Intensity
	1
Conflict Locality	Time
Southern Africa	1990 –ongoing
Countries	Resources
Namibia, South Africa	Water



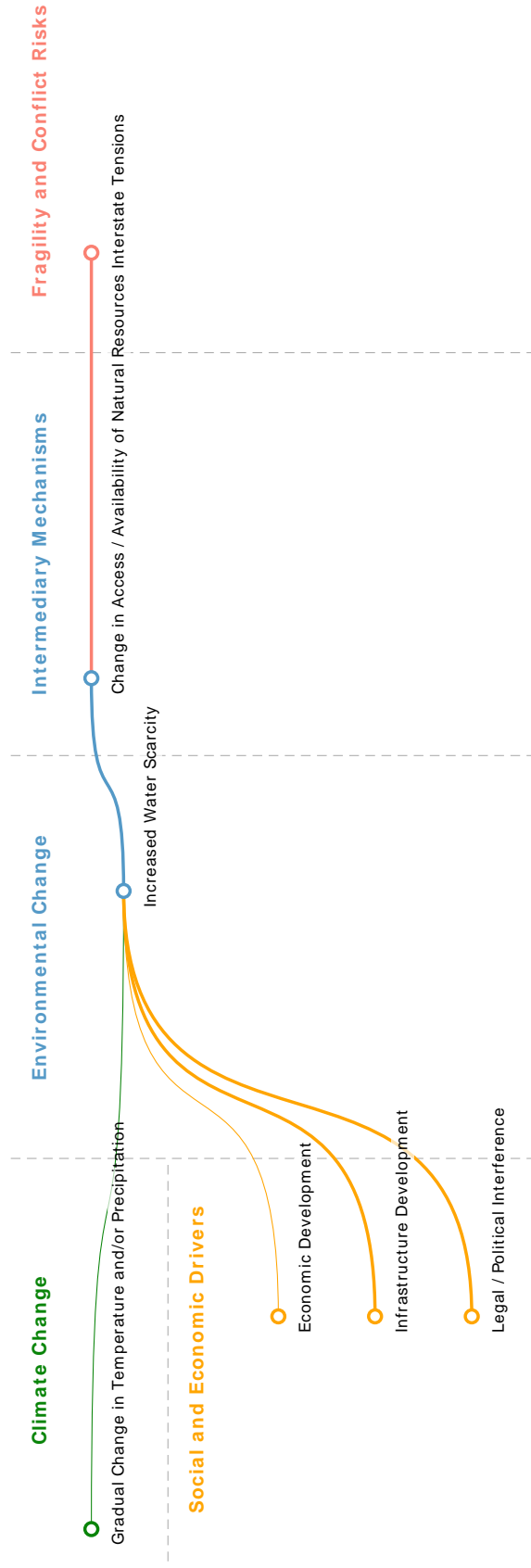
Transboundary
water
management

Conflict Summary

After the independence of Namibia in 1990, a number of water-related disagreements have emerged between the Orange River riparians South Africa and Namibia. These revolve around the demarcation of a common border, water allocation and water pricing, and the Lesotho Highlands Water Project (LHWP). Existing water scarcity in the lower Orange River Basin is likely to be further aggravated by the impacts of climate change. Despite the conflict potential harbored by existing disagreements, the basin’s high level of institutionalized cooperation and the possibilities for intra- and inter-basin water transfers could help alleviate water stress and resolve bilateral disagreement over shared water resources.



Conceptual Model



Context Factors



Water

Water-stressed Area

History of Conflict
Inadequate Infrastructure
Political Transition



Conflict History

The Orange River is a vast and complex river system located within the Southern African Development Community (SADC). The basin has a size of 964,000 square kilometers, and is inhabited by 19 million people. The river is shared between Lesotho, South Africa, Botswana, and Namibia. It rises in the Lesotho highlands, where it is known as the Senqu River, and then flows 2,300 kilometers towards the Atlantic Ocean. Along the way, it is fed by a number of tributaries, most importantly the Caledon River, Vaal River, Fish River, and Molopo-Nossob River. For the last 600 kilometers before entering the Atlantic Ocean, the lower Orange River runs along the boundary between South Africa and Namibia (Sullivan, 2015).

The Orange River is by far the most important source of surface water for South Africa. The basin covers almost half of South Africa's territory, and its water sustains most of the mining, industrial, and agricultural activities in the economic heartland of Gauteng Province, which is almost entirely dependent on the Orange system. Of the river's total flow of 11,300 million cubic meters/year, South Africa withdraws about 63 percent, making it the largest water user among the Orange riparian states. Mostly relying on groundwater, downstream Namibia uses only 1.3 percent of the water, and upstream Lesotho, with its plentiful water supplies, withdraws a mere 0.2 percent. While Botswana is considered an Orange riparian country due to its hydrological links to the ephemeral Molopo-Nossob tributary, at present it uses none of the Orange River surface waters, since there are few inhabitants and little industrial development in its share of the basin (Heyns et al., 2008; Sullivan, 2015; Turton, 2008).

From 1915 to 1990, Namibia was under South African administration, and the lower Orange River was managed by South Africa. Consequently, there were few if any opportunities for inter-state disputes over water allocation. However, South Africa's 75-year rule in Namibia has left behind a legacy of ambivalence in bilateral relations (Hengari & Saunders, 2014). Since Namibia gained independence and aspires to develop its southern region, a number of water-related disagreements have arisen between Namibia and South Africa. These mainly concern the location of a shared border, water allocation and pricing, and the Lesotho Highlands Water Project (LHWP). Climate change has the potential to further exacerbate water scarcity, and might thereby complicate equitable and sustainable water-sharing in the basin.

Border disagreement

The Orange River forms the international border between South Africa and Namibia. However, the two countries disagree over the exact location of this border. A treaty between Britain and Germany, concluded in 1890, sets the demarcation at the high-water level of the northern bank. During the run-up to Namibia's independence, promises were apparently made that the border would be moved from the northern bank to the middle of the Orange River. This location of the border is also enshrined in Art. 1(4) of the Namibian constitution. However, no formal agreement has ever been concluded between South Africa and Namibia that would have fixed the new border location. In 2001, the South African government reportedly informed Namibia that the colonial borders of Africa should be maintained, in accordance with the legal principle of *uti possidetis* (adopted by the Organisation of African Unity as well as its successor, the African Union). South Africa thus seeks to maintain the border location specified in the treaty of 1890 (Demhardt, 1990; Meissner, 2001).



The border delineation has important implications for Orange water use, since the original location of the border would prevent Namibia from independently accessing the water. Moreover, the border location determines the 200 nautical sea miles boundary, which significantly affects mining prospects and opportunities for marine resource exploitation for both South Africa and Namibia (Earle et al., 2005; Meissner, 2001). Although South Africa has repeatedly emphasized that regardless of the border, it would not object to the use of Orange waters by Namibia, "...a solution to the border disagreement would be beneficial for joint basin management in the future" (Earle et al., 2005, 26).

Water allocation and pricing

At the time of Namibian independence in 1990, it was agreed that Namibia would receive a certain amount of water from existing infrastructure in South Africa to meet its water demands downstream. Namibia would receive this share of water, which it regards as its "historical allocation," free of charge. Over the years, however, Namibia has sought to develop its southern region, and the only possibility to promote socio-economic development in the south would be by utilizing a greater share of the Orange River waters. In particular, Namibia has additional water needs for irrigation (e.g., table grapes for export), mining (e.g., zinc, diamonds), and power generation (e.g., development of the Kudu gas field). To meet these water requirements, Namibia has asked for an additional temporal allocation of water from South Africa.

South Africa has responded to this demand by suggesting that any additional water allocations to Namibia should be charged at full cost according to South African water tariffs. Also, South Africa has made clear that the "historical allocation" taken for granted by Namibia should in fact be subjected to operation and maintenance costs incurred by South Africa for water storage and regulating infrastructure on the lower Orange River (Shilomboleni, 2006). Currently, Namibia does not have its own water infrastructure on the Orange River, and in the past has benefited from the South African infrastructure without sharing the burden of its costs. In the future, it is likely that a dam tailored to the needs of Namibia will be built on the lower reaches of the Orange (Heyns et al., 2008; Sullivan, 2015).

Lesotho Highlands Water Project (LHWP)

Given South Africa's increasing water demands, South Africa and Lesotho in 1986 signed a treaty on the LHWP, a project which would divert water from the Lesotho highlands to Gauteng Province. Phase I of the project was completed in 2004, and the feasibility study for Phase II was completed in 2008. In 2014, construction of Phase II began.

From the start, the LHWP was portrayed as a win-win situation for both parties: While South Africa would finance the diversion scheme and buy water from Lesotho to attenuate water stress in its industrial hub, Lesotho would use the infrastructure for hydro-power generation, and the payments for raising the general living standards of its population (Wolf & Newton, 2009, 214-216).

Despite the enthusiasm surrounding the LHWP, it has also attracted a great deal of controversy, especially due to its political history and its impacts on local communities and the environment (see: "Water Coup" in Lesotho). Also, the project has caused concern on the part of South Africa's downstream neighbor: Namibia fears that further expansion of the LHWP will reduce water availability in its southern region. In light of these concerns, the Namibian government has requested to become more involved in Phase II of the project. However, South Africa and Lesotho seem to prefer the existing bilateral mechanisms for communication and information-sharing on the LHWP. The primary reasons given for their reluctance



to open the LHWP up for greater Namibian participation include the efficiency of bilateral partnerships for project implementation, the complexities of including additional states, and the belief that existing mechanisms in the basin, especially the Orange-Senqu River Commission (ORASECOM), provide sufficient possibilities for Namibian involvement (Kistin & Ashton, 2008).

Climate change

The existing disagreements surrounding water allocation in the lower Orange River Basin might be further exacerbated by the impacts of climate change. The basin has long experienced substantial seasonal and spatial variation in rainfall and evaporation rates. While annual precipitation at the source of the river (in the Lesotho highlands) is relatively high and evaporation rates are low, the opposite is true for the downstream portions of the basin. According to forecasts, the existing spatial variability will be further increased by the impacts of climatic change. Especially in downstream areas of the basin, precipitation is expected to decrease, and the resulting diminished surface runoff and groundwater recharge are likely to pose serious challenges for maintaining food security and economic development in South Africa and Namibia (Kistin & Ashton, 2008; ORASECOM, 2009).

Resolution Efforts

High level of institutional development

The Orange River Basin generally demonstrates a high level of institutionalized water cooperation (Turton, 2005). Overall, the basin states have concluded two regional water protocols, six bilateral agreements, and one basin-wide treaty. The latter provided for the establishment of ORASECOM in 2000. ORASECOM is a river basin organization which includes delegates from all four riparian countries. Its main purpose is to provide technical advice to the parties on matters related to water resources development, utilization, and conservation. In fulfilling its mandate, it is guided by the SADC Protocol on Shared Watercourses, which was first passed in 1995 and then revised in 2000. The protocol defines binding rules and requirements as well as cooperation practices for water resources governance in Southern Africa, and has contributed significantly to improved water cooperation in the region (Pohl et al., 2014, 32). In addition to this multilateral framework, bilateral treaties between Namibia and South Africa concluded in 1992 have created the Permanent Water Commission (PWC) and a Joint Irrigation Authority (JIA). Among other things, these bodies can undertake investigations and negotiations, and issue recommendations with respect to water allocation.

As Heyns et al. (2008, 378) point out, “[t]he ultimate objective in the Orange would be an agreement between the basin states on the allocation of water to meet their respective water needs.” Although South Africa and Namibia have in the past engaged in such negotiations, opposing views on key issues have so far prevented the conclusion of a formal agreement on water-sharing (Shilomboleni, 2006). While multilateral and bilateral cooperation mechanisms have so far not produced a formal treaty, they have nevertheless offered a venue for joint studies and information exchange, for example on demand projections, new infrastructure, cost-sharing, and climate change (Kistin & Ashton, 2008).

For instance, to better understand and prepare for the impacts of climate change in the basin, ORASECOM commissioned a study in which researchers for the first time modelled downscaled climate change scenarios and implications for river flow in the Orange-Senqu Basin (ORASECOM, 2011). Also, a variety of



flexibility mechanisms embedded within the existing Orange River agreements (e.g., related to amendment and review processes, revocation clauses, institutional responsibilities) have been found to support the basin's adaptive capacity in dealing with the impacts of climate change (Kistin & Ashton, 2008).

Taken together, it has thus been observed that "...the Orange River Basin is the most stable international river basin in the entire SADC region, with the highest number of basin-specific regimes..." (Turton, 2008, 57). This institutional resilience has prevented water-related disagreements between South Africa and Namibia from spiraling into diplomatic or militarized crises, and has offered opportunities for cooperative dispute resolution. By providing financial and technical support, bi- and multilateral donors and development partners can make an important contribution to maintaining and further expanding this successful institutional framework in the future.

The resilience of water cooperation

This institutional resilience is illustrated by the South African-Namibian border disagreement. Although a formal resolution of this issue would be desirable, and a working group has recently been created to this effect (IBRU, 2014), the border's continuing ambiguity has not seriously endangered the management of shared water resources. According to Heyns et al. (2008, 377), "[a]lthough there is a dispute over the exact location of this border...this does not impact negatively on water cooperation between these two countries." In fact, "[t]here is consensus between the negotiating Parties that the border dispute is not an impediment in terms of water management and for the on-going negotiation over water allocation" (Shilomboleni, 2006, 8).

Intra- and Inter-basin water transfers

One promising and much-discussed opportunity for alleviating water stress in the lower Orange River Basin consists in the expansion of intra- and inter-basin water transfers. The expansion of the LHWP would be one opportunity for increasing intra-basin transfers, potentially also to Namibia and Botswana. If Namibia could be more strongly involved in the LHWP, opportunities for generating sustainable and equitable co-benefits for upstream and downstream areas could be explored. At present, several inter-basin transfer schemes connect the Orange with rivers such as the Limpopo, Maputo, and Thukela. Additional transfers from the Zambezi and Congo Rivers have also been debated as options for addressing water shortages in the Orange River Basin (Kistin & Ashton, 2008; Sullivan, 2015). If such schemes are implemented and operated in a sustainable and collaborative manner, they could play an important role in reducing competition over scarce water resources by enlarging the amount of water available in the Orange River Basin.



Intensities & Influences



INTENSITIES

International / Geopolitical Intensity



Human Suffering



INFLUENCES

Environmental Influences



Societal Influences



Violent Conflict

No



Salience with nation

National



Resolution Success

Reduction in geographical scope

There has been no reduction in geographical scope.



Increased capacity to address grievance in the future

The capacity to address grievances in the future has increased.



Grievance Resolution

Grievances have been partially addressed.





Entry Points for Resilience and Peace Building

Cooperation

3

The Orange River Basin's high level of institutionalized water cooperation (in the form of bilateral and multilateral agreements and organizations, and financial and technical support) has offered opportunities for cooperative dispute resolution. Sustainable and collaborative expansion of intra- and inter-basin water transfers could further help alleviate competition over scarce water resources.

Resources and Materials

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["Water Coup" in Lesotho](#)

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Further information

<https://factbook.ecc-platform.org/conflicts/orange-river-basin-transboundary-water-disagreements-between-south-africa-and-namibia>