



Conflict Factsheet

Dispute over Water in the Nile Basin

Type of conflict Main	Intensity 1
Conflict Locality Africa	Time 1944 –ongoing
Countries S. Sudan, Burundi, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, Uganda, Congo (Kinshasa), Egypt, Sudan	Resources Agricultural / Pastoral Land, Water



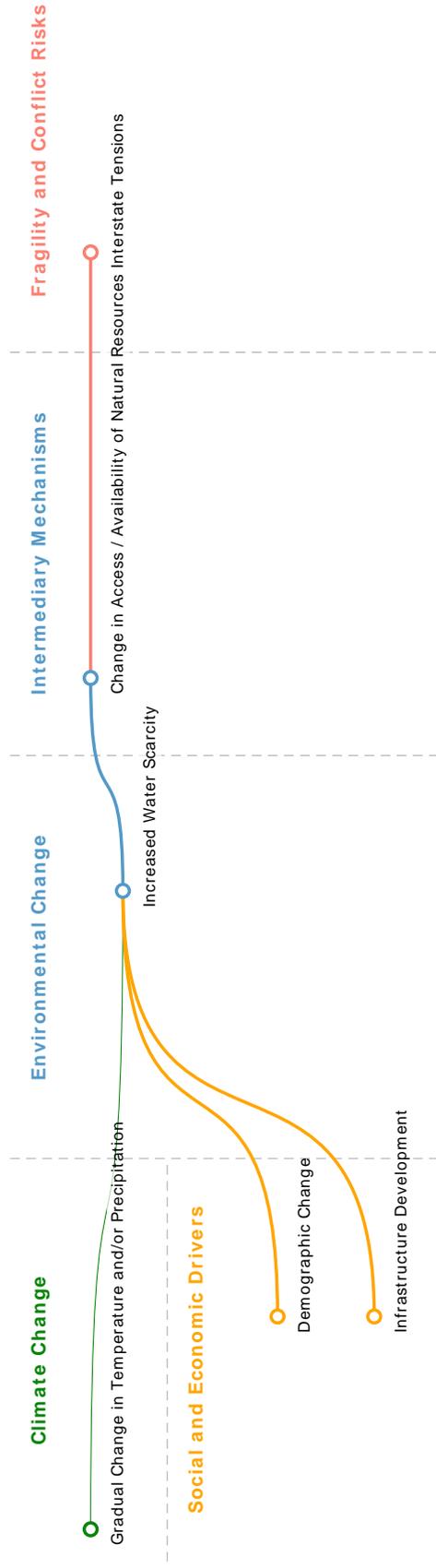
Transboundary
water
management

Conflict Summary

The Nile basin features significant conflict over access to and rights over the Nile water resources among its eleven riparian countries. The Nile Basin Initiative (NBI), founded by 9 out of 10 riparian countries in 1999 with backing from major donor institutions, has achieved some successes in its attempts to strengthen cooperation. Yet, since 2007, diverging interests between upstream and downstream countries have brought negotiations to a standstill, pitting Egypt (and, to a lesser extent, Sudan) against upstream riparians, especially Ethiopia. In 2015, trilateral negotiations between these countries over a major dam under construction in Ethiopia led to a framework agreement that may, in time, prepare the ground for a broader agreement.



Conceptual Model



Context Factors



Agricultural / Pastoral Land, Water

Water-stressed Area

Political Transition
Power Differential



Conflict History

The Nile, though probably the longest river on the planet, moves only limited amounts of water. The region's demographic and economic growth and the need to sustain the livelihoods of hundreds of millions of people have put increasing pressure on a river basin shared by eleven countries. Although cooperation within the basin has made significant progress, it is still overshadowed by a fundamental conflict between upstream riparians insisting on their right to develop their water resources, which could significantly impact downstream river flows, and Egypt striving to maintain current downstream flows. Tensions came to a high-point in 2011 when Ethiopia announced the construction of a 6000 MW hydroelectric dam on the Blue Nile - the main tributary of the Nile basin (see [Dispute over the Grand Ethiopian Renaissance Dam](#)).

Description of the Nile basin

The Nile basin, including its main tributaries the White Nile and the Blue Nile, is shared by eleven countries, namely Egypt, Sudan, South Sudan, Eritrea, Ethiopia, Uganda, Kenya, Tanzania, Burundi, Rwanda, and the Democratic Republic of Congo (DRC). The White Nile originates in the Great Lakes region of Central Africa, and flows north through Tanzania, Uganda and South Sudan. The Blue Nile begins in Ethiopia and flows into Sudan from the southeast. The two rivers meet near the Sudanese capital of Khartoum, from which the Nile flows through the Sudanese desert to Egypt. With a length of approximately 6,700 km, the Nile, together with the Amazon River, occupies the top spot on the list of the world's longest rivers. However, in relative terms, it does not transport much water: approx. 84 km³/year as compared, for example, to 5518 km³/year for the Amazon and 1250 km³/year for the Congo River ([Swain, 2011](#)). Moreover, the Nile is characterized by strong inter-annual flow variation as the greatest part of its water comes from highly variable, monsoon-driven rain on the Ethiopian highlands.

Upstream ambitions

Throughout the 20th century, economic constraints, external pressures and internal strife have precluded upstream countries of the Nile basin from developing their water resources, allowing Egypt to take full advantage of downstream water flow. However, upstream countries have experienced considerable population growth, economic development and political consolidation over the last decade. They have also profited from geopolitical changes in the form of alternative sources of capital for major infrastructure investments ([IDS, 2013](#)). Facing improved opportunities to harness their water resources, but also an increased demand for energy and arable surfaces, these countries have embarked on ambitious development projects along the Nile and its tributaries ([Link et al., 2012](#)).

Within this group of countries, Ethiopia holds a particularly important position, as the Ethiopian highlands provide nearly 86% of the Nile's water ([Swain, 2011](#)). Confronted with rising population numbers and a fast growing economy (on average almost 8% over the last 8 years), the country has the incentive and the means for developing its largely untapped potential for hydro-energy and irrigation ([Gebreluel, 2014](#)). While current water development plans in Ethiopia and other upstream countries require only a small portion of the Nile's water, the prospects for increased water utilisation in the near future raise serious concerns among the downstream countries, Egypt and Sudan ([Pearce, 2015](#); [Link et al., 2012](#); [Swain, 2011](#)).



Downstream efforts to protect the status quo

Owing to increasing population numbers, the water needs of downstream countries are also rising. This pertains especially to Egypt, where water consumption could reach almost 87 km³/year in 2025 (Farrag, 2005). As Egypt receives only very limited amounts of rain, it is highly dependent on irrigation by the Nile for sustaining its agricultural production. It therefore opposes any upstream project that could reduce downstream river flow. While the construction of hydro-power facilities on the Nile tributaries does not necessarily lead to lower downstream flows, the government of Egypt is nevertheless worried that upstream damming projects might open avenues for irrigation projects and water diversion in the future (Swain, 2011; Link et al., 2012).

Egypt's distrust of upstream development projects is further compounded by its loss of political influence. For most of the last century, Egypt has occupied a hegemonic position within the Nile basin, using its economic, military and political power to prevent upstream development projects. But this is set to change. As other riparian countries are catching up economically and Egypt is facing internal conflict, power in the Nile basin is gradually shifting southwards. This makes it harder for Egypt to counterbalance its vulnerable position as a downstream country (IDS, 2013; Gebreluel, 2014).

In view of the 2011 uprising, there are also fears that significant reductions in downstream flow and resulting dents in agricultural production could compromise Egypt's political stability and lead to further insecurity in the region (see [Security implications of growing water scarcity in Egypt](#)).

The role of Sudan

As the second major downstream country in the Nile basin, Sudan has traditionally sided with Egypt against upstream development projects and both countries are bound by a treaty of 1959 to act in concert on Nile water issues. Like its northern neighbour, Sudan is highly dependent on the Nile's flow for sustaining its economic development and growing population (Swain, 2011). Yet, the country is likely to benefit from cooperating with Ethiopia and harnessing its own water resources along the Blue Nile. Given the weakened position of Egypt, this could incite Sudan to realign with its upstream neighbours (Cascão, 2009; Link et al., 2012; Hussein, 2014).

One additional complication has arisen since 2011 from the independence of South Sudan, the new, eleventh basin riparian. Its territory, which includes an enormous wetland area called the Sudd, has long been seen by Egypt as a potential source of additional water. Currently, some 20 km³ of White Nile water evaporate there, which could be drastically reduced by channelling the Nile. The gigantic Jonglei canal, begun in the 1980s and never completed, was an attempt to generate additional water, but its expected huge environmental and social costs were among the grievances that led to the renewed outbreak of civil war in the 1980s. The position of the South Sudanese government on such efforts is currently reluctant, but Cairo is intensifying diplomatic relations with Juba in view of harnessing lost water resources on the White Nile (Salman, 2011; Aman, 2014; see [The Role of Water Resources in the Sudan-South Sudan Peace Process](#)).

The role of climate change

The situation in the Nile basin is further complicated by high uncertainties regarding future water availability. Detailed climatic predictions vary across emission scenarios and employed models, but



experts generally agree that the Nile region will experience further warming, with higher increases in the north of the basin than in the south (Elshamy, Sayed & Badawy, 2009; Kim & Kaluarachchi, 2009). Ceteris paribus, warmer temperatures will increase irrigation needs. Moreover, sea-level rise is going to put pressure on agriculture in the Nile delta, Egypt's bread basket. Due to intensive irrigation, the Nile's environmental flows are already very limited, contributing to salinization and making the delta more vulnerable to seawater intrusion with detrimental effects on agricultural productivity.

On the other hand, changes in precipitation are harder to predict and the results of existent studies remain inconclusive (see Link et al., 2012; Niang, Ruppel, Abdrabo et al., 2014). As a result of higher temperatures and evaporation, total runoff in the Nile basin could decline by the end of the century. Yet, this effect could be compensated by growing precipitations and the cooling effect of increased humidity and an expanded cloud cover (Elshamy, Seierstadt & Sorteberg, 2009; Conway & Hulme, 1993). While the future effect of climate change on the Nile basin remains uncertain, the possibility of a further reduction in Nile flows currently looms over the relations between riparian countries.

Resolution Efforts

The Nile Basin Initiative

In an effort to find a mutually acceptable basis for cooperation in the Nile basin, the riparians established the Nile Basin Initiative (NBI) in 1999, an intergovernmental partnership with the objective of developing 'the river in a cooperative manner, sharing substantial socioeconomic benefits, and promoting regional peace and security' (NBI, 2015). External third parties, especially the World Bank, played a crucial role in bringing all riparian countries together, and almost all basin states joined the NBI, except for Eritrea which has an observer status. Most riparians were motivated by the expectation that a cooperative framework would facilitate substantial investments in large (hydraulic) infrastructure projects in the basin. Rather than focusing primarily on the highly divisive issue of water allocation, the NBI was purposely set up with a complementary investment programme based on benefit-sharing (Mekonnen, 2010). The NBI was conceived as a transitional institution until the negotiations around a permanent Cooperative Framework Agreement (CFA) could be finalized and a durable institution created. The CFA aimed to be inclusive of all the Nile riparians, deciding on principles, structures and institutions to jointly govern the Nile water resources (Swain, 2011; Mekonnen, 2010).

A political deadlock?

Despite more than 10 years of negotiations, this objective has still not been reached. Since 2007, an ongoing dispute over the CFA has brought the negotiations in the Nile basin to a stalemate. The essence of the dispute is about whether or not the CFA should recognise current water use of the downstream countries and colonial-era treaties, specifically an agreement between Egypt and Sudan from 1959, which precludes upstream countries from developing their water resources without the consent of downstream countries. Whereas downstream countries have been insisting on an explicit recognition of what they consider their historic water use and rights, upstream countries vehemently oppose these treaties, to which they were not sovereign parties (Mekonnen 2010; Swain, 2011). More recently, downstream countries have appealed to the more moderate principle of the "obligation not to cause significant



harm” from Article 7 in the UN’s Convention on the Law of the Non-Navigational Uses of International Watercourses, whereas upstream countries emphasize the principle of “equitable use”, also derived from the same UN convention ([Gebreluel, 2014](#)).

Whilst Egypt, and intermittently Sudan, withdrew from the NBI in 2010 in protest against the decision by upstream countries to start the ratification of the CFA in the absence of agreement on a ‘water security’ clause, the multilateral cooperation among the other riparian countries continues. However, unilateral developments of water projects continue in parallel, with a potentially negative effect on the prospects of a comprehensive agreement ([IDS, 2013](#); [Link et al., 2012](#); [Pearce, 2015](#)).

Mediation and negotiations

There have been various attempts by both the riparian countries and third parties such as the World Bank, the USA, the EU and Switzerland to overcome the CFA stalemate and to re-engage Egypt (and Sudan). These included both formal high-level talks in 2011 and informal talks at ministerial level. A lot of work has focused on finding an alternative formulation to the most contentious article of the CFA. In March 2015, Egypt, Sudan and Ethiopia signed a [declaration of principles](#) on the disputed [Grand Ethiopian Renaissance Dam \(GERD\)](#), which may pave the way towards broader cooperation.

Negotiations between the leaders of up- and downstream countries are nevertheless constrained by domestic pressures and the highly symbolic nature of the dispute over the Nile waters. On one hand, the river holds a special and entrenched role in the history and identity of many Egyptians. On the other hand, the recent capacity of upstream countries to utilise the Nile waters epitomises their emergence from years of political and economic marginalisation. The GERD in particular has taken on a significant role in Ethiopian ‘nation-building’ (see [GERD](#) case). The dispute over the Nile is therefore a ‘political minefield’ where overly generous concessions might encounter strong domestic opposition ([Gebreluel, 2014](#)). Beyond the ‘core conflict’ between Egypt and Ethiopia, there is also a regional political struggle for allegiance and a leadership position. Ethiopia has managed to unite the African upstream countries (which also resented Egyptian dominance) in support of its position on ratifying the CFA in spite of Egyptian opposition and invested significant political capital. This makes it anything but easy to find a solution that would allow both Egypt and Ethiopia to claim victory and justify a putative compromise domestically.

Opportunities for basin wide cooperation

Despite these difficulties, opportunities for cooperation and more efficient use of the Nile’s water exist. Water resources could be used more efficiently in a basin-wide approach, where the riparian countries take full advantage of economic integration and comparative advantages in natural and societal conditions (e.g. more efficient hydro energy production in Ethiopia and better conditions for agriculture in Sudan paired with the financial investment capabilities of Egypt) ([Whittington et al., 2014](#)). This way, evaporation losses could be avoided by storing water in cooler regions upstream, rather than in downstream desert regions. The Egyptian economy could shift from agriculture to other sectors, thereby reducing its dependency on the Nile’s water (see [Link et al., 2012](#); [IDS, 2013](#)). Moreover, Ethiopian hydro-power could provide much-needed energy to Egypt, whose demands are bound to rise, not least for air-conditioning in order to counter increasingly ferocious heat waves.

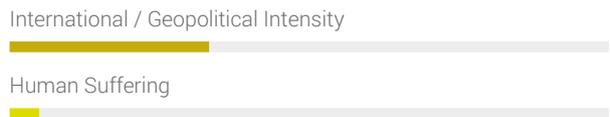


However, increased regional integration also requires trust building measures and the credible commitment of all basin countries in order to promote mutually beneficial inter-dependencies. Furthermore, civil society actors need to have a say in basin-wide development strategies as dam construction and irrigation projects along the Nile and its tributaries are certain to have important implications for riparian ecosystems and the livelihoods of local communities living along the river banks (Kameri-Mbote, 2007; Hussein, 2014). Third parties might be able to support this process by facilitating a multi-track negotiation that allows (key) basin governments to identify mutually beneficial solutions, and/or to extend various types of guarantees to these governments (Subramanian, Brown, & Wolf, 2012). This could be supported by targeted investments that assess, or underpin, the realization of cooperative ventures and which support informed transnational debate on this issue.

Intensities & Influences



INTENSITIES



INFLUENCES



Diplomatic Crisis

Note of diplomatic crisis in case history, conflict purely verbal



Violent Conflict

No



Mass displacement

None



Cross Border Mass Displacement

No



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.



Causal Attribution of Decrease in Conflict Intensity

Conflict resolution strategies have been clearly responsible for the decrease in conflict intensity.





Entry Points for Resilience and Peace Building

Cooperation

2

The Nile Basin Initiative (NBI), founded in 1999, was established with the objective of managing and developing the river in a cooperative manner. The NBI achieved some successes in its attempts to strengthen cooperation and was used as a transitional institution until negotiations for a permanent agreement could be finalized.

Mediation & arbitration

1

Both formal and informal talks to overcome the CFA stalemate have been attempted by the riparian countries and third parties such as the World Bank, the USA, the EU and Switzerland.

Treaty/agreement

3

Negotiations around a Cooperative Framework Agreement (CFA) lasted for 10 years and centred on deciding on principles, structure and institutions to jointly govern the Nile water resources. However, in 2007 negotiations were brought to a stalemate due to diverging interests between upstream and downstream countries. In 2015, trilateral negotiations between Egypt, Sudan and Ethiopia on the construction of a major dam in Ethiopia led to a framework agreement that may prepare the ground for a broader agreement in the future.

Social inclusion & empowerment

0

Civil society actors need to have a say in basin-wide development strategies as dam construction and irrigation projects along the Nile and its tributaries are certain to have important implications for riparian ecosystems and the livelihoods of local communities living along the river banks.

Reducing dependence on specific supplies

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The Egyptian economy could shift from agriculture to other sectors, thereby reducing its dependency on the Nile's water.

Improving resource efficiency

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Opportunities for a more efficient use of the Nile's water exist. For example, water resources could be used more efficiently if riparian countries take full advantage of economic integration and comparative advantages in natural and societal conditions. However, increased regional integration requires the credible commitment of all basin countries in order to promote mutually beneficial inter-dependencies.



Resources and Materials

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[Disputes over the Grand Ethiopian Renaissance Dam \(GERD\)](#)
[The Role of Water Resources in the Sudan-South Sudan Peace Process](#)
[Security Implications of Growing Water Scarcity in Egypt](#)

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Further information

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