Security Implications of the Gilgel Gibe III Dam, Ethiopia

Type of conflict | Intensity
---|---
Main | 1.5

Conflict Locality
Eastern Africa

Countries
Ethiopia, Kenya

Time
2008 – ongoing

Resources
Fish, Agricultural / Pastoral Land, Water

Conflict Summary
As the third and thus far largest dam on the Ethiopian Omo River, the nearly finished Gibe III hydroelectric dam is expected to make an important contribution to Ethiopia’s energy supply and exports. The dam is also supposed to regulate seasonal flows of the Omo River and thus to permit large scale production of sugar cane in the Lower Omo Valley. However, as pointed out by critics of the dam, flow regulation and water abduction for commercial agriculture could have disastrous effects on downstream rural communities, which, in turn, could incite popular protests and exacerbate existing conflicts between local communities.
Conflict History

The Gibe III dam is expected to make an important contribution to Ethiopia’s energy supply with nearly 1870 MW of hydroelectricity. The dam is also supposed to regulate the seasonal flow of the Omo River and thus to permit large scale production of sugar cane in the Lower Omo Valley. However, as critics of the dam point out, flow regulation and water abstraction for commercial agriculture could compromise the livelihoods of downstream rural communities and thus feed into existing grievances against the Ethiopian state, or exacerbate communal conflicts across the Kenyan-Ethiopian border (Adusei, 2012; Vidal, 2015; HRW, 2014a, Johannes et al., 2015).

Flood control, irrigation and threats to rural livelihoods
A first problem arises because projects of flow regulation and irrigated agriculture stand at odds with traditional livelihood strategies of downstream communities (Greste, 2009). In order to cope with the region’s erratic weather conditions, rural communities of the Lower Omo River Valley practice a mixture of flood recession agriculture and pastoralism, both of which rely on seasonal floods of the Omo River for replenishing crop- and grazing land along the riverbank (HRW, 2012; HRW, 2014b). In contrast, irrigated sugar plantations require a more constant flow of river water throughout the year and can be damaged by excessive floods. As a solution to this problem, the developers of Gibe III promise to include a controlled flood once a year in the regular operation of the dam. However, independent experts are sceptical about the effectiveness of this measure, with some even doubting that it will be applied once the sugar plantations are in place (Avery, 2013; Fong, 2015; International Rivers, 2015).

A second problem arises because water abstraction for irrigated sugar plantations is likely to significantly reduce downstream water flows (Fong, 2015; UNEP, 2013; Velpuri & Senay, 2012). Sugarcane is a water intensive crop. Hence, projects of the Ethiopian government to convert 175,000 ha of land along the Omo River into sugar plantations are likely to deplete essential water and soil resources, on which downstream communities depend (Fong, 2015; Perry, 2015).

Beyond the borders of Ethiopia, large scale water abstraction for commercial agriculture risks also to affect the level of Lake Turkana in Kenya, which receives most of its water from the Omo River (Fong, 2015). As estimated by Avery (2013), Lake Turkana could drop by as much as 22 meters as a result of heavy water extraction from the Omo River. This would have disastrous consequences for some 300,000 fishermen and pastoralists across the Kenyan-Ethiopian border (see also Avery, 2012; HRW, 2014b; International Rivers, 2015).

Forced evictions and grievances against the government
The dam and irrigation projects have been designed and implemented without previous consultations with downstream communities, some of which have even been violently evicted to clear land for sugar plantations (HRW, 2012; De Cave, 2014). To compensate for the loss of communal land, the Ethiopian government promises 150,000 new jobs on commercial plantations as well as improved access to services. Yet, past experiences with resettlement programmes in Ethiopia suggest that these promises are unlikely to materialise (HRW, 2012). Moreover, settled communities are left more vulnerable, as they are forced to abandon traditional coping strategies to become fully dependent on local employers and relief agencies (HRW, 2012). In many cases, farm encroachment on communal land and abuses by
security forces have contributed to long standing grievances among already marginalised Southern Omo communities. Most groups in the region share a critical if not hostile attitude towards their government, which has mostly ignored their needs in the past (Grest, 2009). Furthermore, groups such as the Nyangatom are well armed and have acquired considerable military experience fighting alongside the Sudan People’s Liberation Movement in the South Sudanese civil war. Under these circumstances, exclusion from decision-making and forceful evictions might fuel violent resistance (Grest, 2009).

Communal conflicts over water and grazing land
Another possible outcome of forced evictions and increasing water scarcity in the Lower Omo/Turkana region could be an increase in the frequency and intensity of conflicts between communal groups such as the Turkana, Nyangatom and Dassanach (Adusei, 2012). In the past, these groups have often been involved in clashes over resources against the backdrop of progressively declining environmental conditions (see Drought and Conflict across the Kenyan-Ethiopian Border). These conflicts risk intensifying, as water and grazing land become scarcer and Ethiopian groups are pushed further southwards into territory claimed by their Kenyan neighbours (Johannes et al., 2015; HRW, 2014a, 2014b). Moreover, the shrinking of Lake Turkana might incite new conflicts between Kenyan communities that were previously separated by this natural barrier (Fong, 2015; Vidal, 2015).

In fact, the dam is already causing violent and often lethal clashes between Kenyan and Ethiopian fishermen on Lake Turkana (Vivekananda 2015). As a result of the changing water table and subsequent movement of fish stock, Kenyan fishermen are increasingly venturing into ‘Ethiopian waters’ leading to violent retaliations – the fishermen on both sides are armed with machine guns. The Kenyan government has authorised the National Guard to engage and use non-lethal force to detain Ethiopian fishermen. According to local Turkana fishermen interviewed for International Alert’s Kenya Peace Audit in 2015, 30 Turkana fishermen had allegedly been shot that year. The likelihood is an increase and escalation of such violence as the work on the dam progresses (Vivekananda 2015).

Resolution Efforts
Environmental organisations and independent experts are urging the Government of Ethiopia to mitigate the detrimental effects of hydroelectric dams on the Omo River and halt agricultural development projects until plans for a more equitable and sustainable use of water resources have been prepared in consultation with affected communities. The stakes are high, as the government plans to build two more dams on the Omo River (Gibe IV and V) to further increase energy production (International Rivers, 2015).

Reducing the adverse impacts of Gibe III
International Rivers (2015) suggests introducing so called “environmental flows” in the operation of Gibe III. Environmental flows are seasonally and annually varying water flows that mimic natural variations in flow levels and support ecosystems and human livelihoods while providing for other uses such as hydropower, irrigation and water supply (see Richter & Thomas, 2007). However, the implementation of such a system can be quite challenging (see Le Quesne et al., 2010). Among other things it remains uncertain whether the
interests of downstream communities would prevail against plans for future dams and the need to protect major irrigation investments from damage by floods (Avery, 2013).

**UNESCO's involvement**
Following talks initiated by UNESCO’s World Heritage Committee (WHC), the governments of Kenya and Ethiopia have promised to conduct a Strategic Environmental Impact Assessment (SEIA) so as to evaluate the effect of future irrigation projects on downstream water flows and Lake Turkana. The impact assessment is supposed to produce a roadmap for sustainable development in the Lower Omo Valley. In return, the WHC has refrained from putting Lake Turkana on the list of endangered world heritage sites. Experts hope that the joint assessment might discourage the large-scale abduction of water for irrigation (Muchangi, 2014). Yet so far, the Ethiopian government has not followed any of the recommendation of the WHC (Bosshard, 2015).

**Including downstream communities in development planning**
Moreover, current grievances could be reduced by facilitating the participation of local communities in future land use plans for the Lower Omo Valley. The Ethiopian government has established a number of Basin Development Authorities to help ensure sustainable development for downstream communities (Savage, 2014). However, additional efforts are needed to overcome present marginalisation and distrust in the government.
As noted by Perry (2015), there is also a general failure to recognise the potential of traditional farming and herding techniques as viable coping strategies vis-à-vis increasingly erratic weather conditions in the Lower Omo Valley. Supporting these activities could further improve their efficiency, reduce vulnerability and work against the stigmatisation of local communities and their way of life.
### Intensities & Influences

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<td>Human Suffering</td>
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<td>Environmental Influences</td>
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<tr>
<th>Diplomatic Crisis</th>
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<td>Violent Conflict</td>
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<td>Mass displacement</td>
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<td>Cross Border Mass Displacement</td>
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### Resolution Success

- **Reduction in geographical scope**
  - There has been no reduction in geographical scope.

- **Increased capacity to address grievance in the future**
  - There is no increased capacity to address grievances in the future.

- **Grievance Resolution**
  - Grievances have been mostly ignored.
Entry Points for Resilience and Peace Building

**Promoting alternative livelihoods**
Supporting traditional farming and herding techniques could improve their efficiency and reduce the vulnerability of local communities.

**Improving actionable information**
The governments of Kenya and Ethiopia have promised to conduct a Strategic Environmental Impact Assessment (SEIA) so as to evaluate the effect of future irrigation projects on downstream water flows.

**Improving resource efficiency**
The introduction of "environmental flows" has been suggested in order to mimic natural variations in flow levels and support ecosystems and human livelihoods while providing water for other uses such as hydropower and irrigated agriculture.

Resources and Materials

Conflict References

Drought and Conflict across the Kenyan-Ethiopian Border

References with URL

Avery, S. (2012). Lake Turkana & the Lower Omo: Hydrological Impacts of Major Dam & Irrigation Development
Avery, S. (2013). What Future for Lake Turkana?
De Cave, M. (2014). Who gives a "dam" about the Omo River in Ethiopia? Water security and sustainability of the Gibe III dam through a social - ecological analysis
Greste, P. (2009). The dam that divides Ethiopians
HRW (2012). "What Will Happen if Hunger Comes?": Abuses against the Indigenous Peoples of Ethiopia’s Lower Omo Valley
HRW (2014a). Ethiopia: Land, Water Grabs Devastate Communities
HRW (2014b). Ethiopia: Omo Sugar Plantations
International Rivers (2015). Omo River, Lake Turkana at Risk from Dams and Plantations
Muchangi, J. (2014). Will Kenya’s Frantic Efforts to Save Lake Turkana Succeed?
Perry, M. (2015). Dismantling the Omo Valley
Savage, E. (2014). Damming the Omo: Ethiopia’s bid for hydropower dominance
UNEP (2013). Balancing economic development and protecting the cradle of mankind - Lake Turkana basin

Vidal, J. (2015). Ethiopia dam will turn Lake Turkana into 'endless battlefield', locals warn


Further information

https://factbook.ecc-platform.org/conflicts/security-implications-gilgel-gibe-iii-dam-ethiopia