Fighting for Lake Turkana

Why Kenyan communities are resisting Gibe 3 Dam

A report from the field

Terri Hathaway, International Rivers
Caterina Amicucci, Campagna per la Riforma della Banca Mondiale
June 22, 2010

Campagna per la riforma della Banca Mondiale

INTERNATIONAL RIVERS
people • water • life

1. Lake Turkana and the Gibe 3 Dam

Lake Turkana, the world's largest desert lake, supports 300,000 people and a fragile ecosystem. Ethiopia's Omo River is Lake Turkana's most precious source of freshwater, providing up to 90% of the lake's inflow. The Omo's contribution allows a delicate stability to the lake's level, which endures a high evaporation rate.

The Gibe 3 Dam under construction on the Omo River will affect the quantity of water flowing into Lake Turkana and could cause Lake Turkana's level to drop up to 12 meters.[1] Six recognized, indigenous communities - Dassanach, El Molo, Gabra, Rendille, Samburu and Turkana - depend on the lake to support their fishing and herding livelihoods. Many also rely on the lake as a primary source of drinking water and water for household use.

The Lake Turkana area is extremely poor and a virtual tinderbox of violent conflict. In the last few decades, the region has experienced a growing population while more frequent and prolonged droughts have reduced the natural resource base. Rainfed agriculture is not possible. Pasture resources for livestock have dramatically reduced, encouraging those closest to Lake Turkana to turn to fishing as an alternative livelihood. Communication, roads, social services, and political support are almost non-existent, leaving those living around Lake Turkana physically isolated and politically marginalized. Chronic dependency on food aid is high. Proliferation of illegal arms from southern Sudan has contributed to the escalation of insecurity along the area's shared borders with Ethiopia, Sudan, and Uganda.

As traditional herding has suffered under scarce resources, Lake Turkana has become a more vital resource. Communities rely on the lake for fishing and water for household uses. Despite Lake Turkana's high salinity level, many villages around the lake have no other source of drinking water for all or most of the year. The lake has come under increasing threat due to climate change and the reduction of other minor inflows such as the Turkwel River. As the lake level falls, the water's salinity and temperature increase. These changes threaten the habitat, breeding grounds, and food sources for fish stocks. A smaller and more saline Lake Turkana would also reduce the grazing areas along the lake's shoreline. It could also increase health risks of the lake water used for human consumption.

The Gibe 3 Dam is expected to dramatically reduce Lake Turkana inflow from the Omo River through four factors, none of which have been sufficiently analyzed to date by project developers. First, the filling of the dam's massive reservoir would require several years, during which time the inflow to Lake Turkana would be reduced by nearly half.[2] The filling is expected to take at least two years, but some believe it could take up to six years.

Once the dam is operational, water would continue to be lost in three ways:

1. The geological substructure under the reservoir is volcanic, porous and contains many

[1] African Resources Working Group. 2009. "A Commentary on the Environmental, Socioeconomic and Human Rights Impacts of the Proposed Gibe III Dam in the Lower Omo River Basin of Ethiopia," p.4. Available at: http://www.arwg-gibe.org/uploads/ARWG_COMMENTARY.GIBE_III_DAM.downstreamEIA.pdf.

[2] Ibid., p. 22.

fissures. It is expected that up to 75% of the reservoir's standing water could be lost to extensive reservoir leakage.[3]

2. The reservoir would also lose some water to evaporation. While the reservoir's narrow and deep shape would minimize the evaporation rate, it is still a contributing factor that should be analyzed, quantified, and considered in the overall reduction of water inflows reaching Lake Turkana.
3. Ethiopia is planning to irrigate at least 143,000 hectares of large-scale agriculture using water from the lower Omo River.[4] While the ESIA mentions the increased irrigated agriculture, it does not quantify how much water could be extracted. The Ethiopian government's large-scale agriculture plans dependent on the Omo River alone would spell an environmental and social disaster for Lake Turkana.

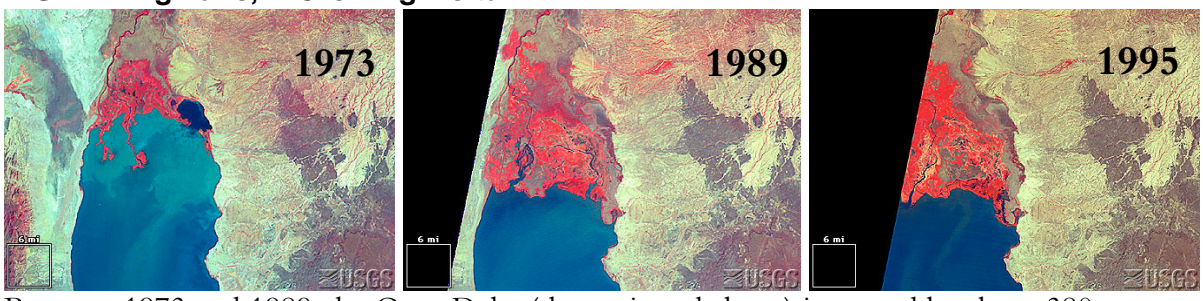
From 23 March to 2 April 2010, Campagna per la Riforma della Banca Mondiale (CRBM) and International Rivers undertook a field visit to the Lake Turkana area in collaboration with Friends of Lake Turkana. The communities of Lodwar, Kerio, Kalakol, and Kangaki were visited on the western side of Lake Turkana; Ileret and Selucho were visited on the eastern side. Information and data has been gathered from additional sources to provide a fuller perspective of the Lake Turkana area.

2. Lake Turkana & Its People

Six indigenous communities – Dassanach, El Molo, Gabra, Rendille, Samburu and Turkana - live along the banks and rely on the waters and ecosystem of Lake Turkana.

The Dassanach live in both Ethiopia and Kenya. The Kenyan Dassanach are semi-nomadic pastoralists who also fish. The Kenyan Dassanach live primarily on the northeastern area of Lake Turkana and can reach their cousins in the delta only by crossing the border by land. The Ethiopian Dassanach reside in the Omo Delta and rely almost entirely on the cultivation in the delta for their food security. However, they have increasingly turned to fishing in the midst of several years of failed floods in the delta. A gradual recession of the lake over several decades has also resulted in the growth of the delta which now spreads across the Ethiopia-Kenya border (see Box 1). Ethiopian Dassanach have migrated south with the growing delta, a source of increasing resource conflict with the Turkana around the border.

A Shrinking Lake, A Growing Delta



Between 1973 and 1989, the Omo Delta (shown in red above) increased by about 380 kilometers[2] due to a drop in the water level. Aquatic vegetation took hold on the emerging delta. Prolonged drought and the damming of three rivers for irrigation near the southern reaches of the lake contributed to the lake's decline.

Source: Campbell, Robert Wellman, ed. 1998. "Lake Turkana, Ethiopia/Kenya: 1973, 1989, 1995." Earthshots: Satellite Images of Environmental Change. U.S. Geological Survey. http://earthshots.usgs.gov/Turkana/Turkana

[3] Ibid., p.15.
[4] Agriconsulting. 2009. "Gibe III Dam Environmental and Social Impact Assessment," p. 174.

The El Molo tribe numbers as few as 200 individuals and is threatened with extinction. They have lost their language and most of their culture through assimilation and intermarriage with influential neighbours, mostly the Samburus, but also Rendille and Turkana. The El Molo mainly fish but keep livestock in small numbers. El Molo live in the villages of Layeni and Komote on the shores of El Molo Bay on Lake Turkana's south eastern shore, near Loiyangalani.

The Gabra, Rendille and Samburu tribes are nomadic and semi-nomadic pastoralists living on the eastern side of Lake Turkana. The Gabra live between the lake and the Chalbi Desert, while the Rendille live between the lake and the Marsabit hills. Samburu can be found in Loyangalani as well as south of the Rendille. Herds of camels, cattle, sheep and goats are kept.

The Turkana are semi-nomadic pastoralists and fishers. They inhabit Turkana District along the west side of Lake Turkana and are estimated at about 340,000. Their neighbors include the Pokot tribe to the south, the Dasanech to the north, and several Sudanese tribes to the west. Turkana near Lake Turkana have increasingly turned to fishing as an alternative livelihood. Goats, camels, donkeys and zebu are the primary herd stock of the Turkana.

3. Lake Turkana Communities Resist Gibe 3 Dam

Communities we visited around Lake Turkana shared a common message. They are opposed to the Gibe 3 Dam. Their communities, they told us, have been passed over for years by the Kenyan government. They have no other options for their livelihoods and often no other water source besides the lake. Reduction of the lake levels, increased temperatures, and increased salinity is affecting the fish population. Reduced fishing incomes mean greater poverty. The last three years have been particularly hard as food levels have reduced, and many are chronically dependent on relief food. They are concerned about the next generation.

Communities provided many colorful metaphors that described their dependency on the lake and the Omo River:

"The lake is my mother, the lake is my father. If the lake is gone, who will be my parents?" - Dassanach resident in Selucho

"The lake is the cow, the river the bull. If you castrate the bull, the lake cannot reproduce." - Dassanach fisherman in Ileret

"The lake is our heart. When the heart stops beating, there is nothing but death."

Communities also expressed how the lake supports them, and the consequences of a disappearing Lake Turkana:

"I've grown up with this lake that fed me."

"We worship the lake, we get school fees from the lake."

"On the other side of the water are our enemies. If the waters are gone, we are finished."

"When we have nothing to feed our children, they will die."

"Our food will go down, conflict will increase."

"We can't eat electricity, we don't benefit from electricity."

"If they close the river people here will really fight"

"When flooding comes, smaller fish disappear, bigger fish come"

"When there's not enough fish, fathers can't pay school fees."

"We don't want the river to be closed."

"From Loyangalani up to where the dam is, they are crying for death."

Communities have participated in several demonstrations against Gibe 3 Dam, organized by Friends of Lake Turkana, in 2009 and 2010. On January 20, 2010, demonstrations were organized in three locations around the lake's northeastern town of Ileret. Demonstrators have called on foreign governments to halt funding for Gibe 3 Dam.

Honorable Etho Ekwee, the Turkana Central Member of the Kenyan Parliament, has been a strong critic of Gibe 3 Dam. In 2008, he raised questions in Parliament about the dam to the Minister of Water. In 2009, he continued to discuss the problems of the dam with other politicians. He has attended two mediation meetings (July 2009 and November 2009) between the African Development Bank and Friends of Lake Turkana.

In the town of Kalakol, nearly 30 residents gathered to tell us how the lake is the basis of their lives. Amongst them, David Ekod Lotiang and Leah Ewoi, two Turkana County councillors, expressed their frustration. According to Lotiang and Ewoi, the County Council discussed Gibe 3 in December 2009, and again in March 2010. Councillors Lotiang and Ewoi told us that all councillors are talking about the dam. "The Turkana County Council is united in its position against the dam. Councillors know that many will be affected."

The Kenyan Dassanach are worried that their Ethiopian cousins in the Omo Delta will soon have "nothing to eat but soil. After the river floods, they grow crops. Grass grows, animals produce. But when the flood has stopped, there is no food." For three years, there has been almost no flood in the delta. One Dassanach elder said he had been visiting family in Omorate, Ethiopia, in 2007 when there had been a government consultation meeting on Gibe 3. "All the local people [Hamar and Dassanach] I saw were against the dam," he recalled.

"When they heard about the dam, we cried to all our government leaders. Leaders may pass but they don't stop and talk about what is happening." During our visit, the villagers had collected their weapons to fight us, later telling us that they thought we were the dam builders. "We are ready to fight, even with bare hands".

Villagers reported that local consultations on Gibe 3 took place in September 2009, three years after construction began. Consultants arrived with surveys and questionnaires, 50 questions, 20 questionnaires per village. The questions were related to the benefits and disadvantages of the lake, and how villagers use the lake. Local youth were recruited to help fill the surveys over two days and reported being paid 1,000 Kenyan Shillings (KSH) per day.

4. Lake Turkana's Natural Resources

4.1 Natural Floods

Lake Turkana is approximately 240 kilometers long and 40 kilometers wide, with an average depth of about 35 meters. The area has experienced a generational change from pastoralism to fishing. Since the 1960s, droughts have become increasingly common. Villagers in Kerio and Kangaki described how the lake has dramatically receded from the edge of their villages since the time of their grandfathers. Now they must walk a half hour to the lakeshore. "For us, the lake has gone already."

Three years of failed rains and prolonged drought (2007 to 2009) across the region resulted in up to 6 million Kenyans and Ethiopians in need of food aid. Livestock died by the thousands and crops withered. The Lake Turkana region was hardest hit. The last drought, in 2005, had already reduced livestock herds that did not have sufficient time to recover before the recent drought began. The area's historical drought cycles, which used to average once every ten years, are now occurring every three or four years. Recent rains in January and March 2010 killed off much of the remaining herd animals that were already in poor health. The livestock deaths are attributed to shock from sharp drops in temperature, overfeeding on new grasses, and spread of disease.

2007 – 2009: Lake Turkana hardest hit by three-year East African drought

The image compares the growth of vegetation between July 21st and October 10, 2009 to the average growth over the same period from 2002-2008. Green areas show better-than-average growth, tan areas reflect average conditions, and brown areas show poorer-than-average growth. Many have said that they believe climate change is causing the more severe and frequent droughts in the region, or in the very least exacerbating the situation.

Source: Hance, Jeremy. November 05, 2009. "NASA satellite image reveals extent of drought in East Africa," mongabay.com. Image courtesy of NASA. http://news.mongabay.com/2009/1105-hance_drought.html

Since 2007, the Omo River has failed to produce its annual flood, which normally floods the delta around September. Especially during 2008 and 2009, observers report that the lake level has dropped and salinity has increased. These last three years of failed flooding of the Omo Delta and the visual receding of the shoreline have underpinned a widespread perception by local communities that the damming of the Omo River has already occurred and is already causing the shrinking of Lake Turkana. While the timeline coincides with the regional drought affecting much of Eastern Africa, the Omo River basin should not have been so dramatically affected. Thus, the cause of the failed floods of the Omo River remains unexplained.

4.2 Fishing

Fishing in Lake Turkana is primarily done by individual fishermen who share hand-crafted, hand-powered boats. Fishing takes place in the first few kilometers of the lake. There are no large fishing vessels in Lake Turkana and very few with engines. Fishing activities are monitored by the local Beach Management Unit (BMU) which operates under the Kenyan Ministry of Fisheries. Fishing used to be primarily for subsistence, but a commercial trade has developed in the past few years. Fishers report a mix of using fish to feed their families as well as to sell to support household expenses.

Lake Turkana's fishing is largely concentrated at Ferguson's Gulf on the southwestern shore. Ferguson's Gulf is the lake's most important fish breeding ground and attracts fishers from the entire western side of Lake Turkana. Tilapia and Nile Perch are amongst the main fish caught.

Since 2006, the Kenya Marine and Fisheries Research Institute (KILOMETERSFRI) has monitored fishing and the ecology of Lake Turkana.[5] Fish rely on the annual flood pulse to trigger spawning activities and to help produce plankton. The last three years have witnessed a

[5] For more information, visit http://www.kilometersfri.co.ke.

dramatic, unexplained drop in the lake level, and subsequent increasing salinity. This could impact the fish food chain, which depends on plankton. In the small village of Kangaki, villagers told us that the fish population has dropped dramatically in the last three years. "Even in all the boats, there are just a few fish," they tell us. "The lake is shrinking every day. We go in the morning to fish. When we come back the shore has dried."

Local demand for dried fish at Kisumu (on the shore of Lake Victoria) has increased, driving a modest commercial fish market from Lake Turkana. Fish are dried and shipped to Kisumu where they are reportedly sold for local consumption. There is also a small number of refrigerated trucks which have begun to transport frozen fish from Lake Turkana to Kisumu. Local fishers reported that consumers in Kisumu find the higher saltiness of the Turkana fish more palatable. Demand may also be due to Kisumu fishers catching and selling higher value fish for export, creating a market for local trade in Turkana fish.

In Ileret, the fish trade is dominated by a small group of traders (four Somalis and one Dassanach local) who buy the fish from local fishermen and sell to Lowerengak (on the northwestern shore) across the lake. They buy each fish for 10 to 15 KSH or up to 20 KSH per kilogram. A bale of fish (1,000 fish) sells for 20,000 KSH. Traders may sell about 20 bales of fish per month. The trader we spoke with had been there for 10 years.

According to one source that monitors fishing rights in Lake Turkana, Ethiopian companies are illegally fishing in the lake. At least two Ethiopian fishing companies are running small fishing fleets including five engine boats and 22 canoes. The Gibe 3 Dam's Environmental Social Impact Assessment confirms that Ethiopian commercial fishing in Lake Turkana is occurring and has been supported by the Ethiopia's Regional Bureau of Agriculture. Fish trading companies operate in Omorate. Prices are mainly fixed by the buyers rather than the fishers, who have virtually no bargaining power.[6] Ethiopian fishing rights in Lake Turkana are not clear, and growing numbers of Ethiopian Dasanech are also engaging in small-scale fishing. Ethiopian Dassanach are following the lake, fighting over fishing/grazing resources because they must now cross into Kenya to reach the receded lake. If the lake recedes even more, it is unclear what will happen.

4.3 Water Quality

Many drink from the lake even though Lake Turkana's salinity is far above the normal levels of drinking water and higher than that of any other large African lake. Lake Turkana has a total dissolved salts (TDS) level of about 2,500 ppm, 25 times greater than the average level for drinking water, and 2.5 times greater than the maximum limit for drinking water.[7] Even water wells frequently become salty due to groundwater systems connected with Lake Turkana. In Kalanget, a water pump installed in a seasonal riverbed had been washed away when heavy rains hit for the first time in three years. When we asked villagers if they really drink lake water, explaining that some villagers on the eastern shore told us they don't drink lake water, one woman cried, "Maybe in their place!" In Kalanget, the lake is now the village's only water source. A ten meter drop in Lake Turkana's level would cause an estimated 33% reduction in water, resulting in a salinity increase of
146%.

[6] Agriconsulting. 2009. "Environmental and Social Impact Assessment," p. 68 – 70.

[7] WWF/The Nature Conservancy. 2008. 'Freshwater Ecoregions of the World: Lake Turkana." Available at: http://www.feow.org/ecoregion_details.php?eco=530.

Type of Water	Total Dissolved Salts (TDS)
Drinking water	100 ppm
Restrictions on drinking water	500 – 1,000 ppm
Lake Turkana	**2,500 ppm**
Brackish water	500 – 30,000 ppm
Sea water	30,000 - 50,000 ppm

4.4 Tourism

Tourism is minimal in the region, though with investments in infrastructure and marketing, it could help diversify the local economy. In 1997, Lake Turkana's Sibiloi and Central Island national parks (157,585 hectares total) were added by UNESCO to the list of World Heritage Sites.[8] In 2001, the World Heritage Site was extended to include a third national park (also Lake Turkana's largest island), South Island. All three parks are important breeding grounds for crocodiles and hippopotami. It is a critical migratory stopover for over 200,000 Little Stint and other waterbirds. South Island is one of Kenya's Important Bird Areas as defined by BirdLife International. Lake Turkana waters support 47 species of fish, seven of which are endemic to the lake. South Island is also a part of Mount Kulal Biosphere Reserve, which extends over the southern part of Lake Turkana.

5. Lake Turkana Area's Basic Services

The Lake Turkana area is one of the poorest regions in Kenya and has become chronically food insecure.[9] Today, Oxfam estimates that 95% of the Turkana district is under the poverty level. Frequency of droughts in the area has been increasing since the 1960s. Most communities live in traditional huts built from palm fronds. The few businesses which use electricity must rely on diesel generators. During the rainy season some villages are completely isolated. Except for the town of Lodwar, the area has access to virtually no media sources. Turkana area is served by one church-run radio program and can access shortwave radio. Roads to Lake Turkana region are difficult, and it can take more than a day to reach by bus transport. Lodwar is reachable by one daily flight from Nairobi or chartered flights, which can also reach Loyangalini and Ileret.

Schools, health clinics and other social services provided in the Lake Turkana region remain minimal compared to the high level of need. Resources are mainly provided in three ways: government, church missions, and humanitarian relief implemented by NGOs. Members of Parliament can access funds for local projects through the government's Constituency Development Fund (CDF). However, several communities shared stories of CDF-funded schools and clinics that were built but are not operational due to a lack of staff. Communities report that government-funded teachers and health workers assigned to the area often do not arrive or leave quickly due to the area's challenges of daily living. County councils also receive government funds for their budgets, but new funds can only be received once previous expenses are successfully audited.

Church area services are largely run through the Catholic Church's 123 outstations, although other missions and churches exist in the area. Church missions often run medical clinics, schools, and build water wells. The area's humanitarian relief, namely food aid, has largely been

[8] Sibiloi/Central Island National Parks (Kenya), 1997; and Sibiloi/Central Island National Parks (Kenya) Extension to include South Island National Park, 2001. Available at: http://whc.unesco.org/en/list/801.

[9] For more information, see "Turkana District Long Rains Assessment Report 13th – 17th July, 2009." Available at: http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1115964.

overseen by the international NGO, Oxfam. There are many local NGOs as well. Most people along the lake are food insecure, one international organization told us. In Turkana District, there are 250,000 people receiving food aid. Villagers reported that food is so scarce, they resort to eating desert palm nuts, which are bitter and cause constipation. They bring a piece to each of us. They want us to taste the bitterness of their reality. "Those who close the river should come and eat these palm nuts," they tell us.

In many places, families share the same water source as their livestock, which increases the health risks. A cholera outbreak in March 2010 at Lokitaung killed six and left many more residents hospitalized.[10] An outbreak in late 2009 killed 47 people and infected 1,550 others. Turkana Central MP Ekwe Ethuro has blamed the severity of outbreaks on poor funding of local health facilities and the government's overall lack of commitment to resolving the problem in the Turkana area. Communities in Turkana South were the worst affected. Villages along the lake, including Nakomuse, Lambech, Kalokol and Kerio were also affected. Most residents of Turkana trek an average of 40 kilometers to the nearest hospital.

Lake Turkana communities could be affected by two other large-scale projects. The Africa Oil Corporation, a company listed on the Toronto Stock Exchange, owns several connected blocks in Turkana area and is beginning their exploration for oil.[11] The day before our arrival, a community forum had been held by the company and several community members were wearing new hats and shirts with the company logo. On the eastern side of the lake, the Lake Turkana Wind Power company is planning a 300 MW commercial wind farm on customary grazing lands of Samburu and Rendille tribes.[12] These projects could further test the resource rights of communities around Lake Turkana. There is a need for a cumulative social and environmental impact assessment.

6. Local Conflict, Arms & Peace-Building

Lake Turkana and its surrounding area have a long history of local conflicts that intensify when pasture and water resources are scarce. Conflicts are often due to theft of livestock and fishing equipment, and revenge acts for such thefts. Conflicts are exacerbated by the proliferation of arms and the effects of drought on food security. Local peace-building efforts have experienced waves of support when conflicts reach a crisis but relax in times of fragile peace.

Cattle-raiding has been a long-time form of conflict in the area, a practice sometimes driven by cultural practices but increasingly related to ongoing disputes. In surrounding pastoralist societies, livestock is used for bride-price negotiations and dowries. Cattle-raiding occurs between Turkana and Dassanach, Dassanach and Gabra, Gabra and Rendille, Karamojong and Turkana, Turkana and Pokot. Conflicts between Turkana and Dasanech over stolen fishing equipment are increasingly common, including late-night acts of "piracy" between fishing boats on the lake. However, thefts of fishing equipment are also reported amongst fishers from the same tribe.

Over the last few decades, several intense conflicts have resulted in the death of thousands in what has come to be known as the "killing fields of Tendonyang." These events start as isolated killings of fishermen or cattle herders in the Omo Delta but have almost led to war between the Ethiopian and Kenyan governments.

---

10 Lucheli, Isaiah. 14 March 2010. "Cholera: The new curse in Turkana," *Standard Online.* Available at: http://www.standardmedia.co.ke/InsidePage.php?id=2000005564&cid=442&story=Cholera:%20The%20new%20curse%20in%20Turkana.

11 For more information, see Africa Oil Corporation: http://www.africaoilcorp.com.

12 For more information, see Lake Turkana Wind Power: http://laketurkanawindpower.com.

Between 2006 and 2008, a peace building project between Turkana and Dasanech resulted in a peaceful co-existence and sharing of natural resources between the tribes.[13] Incidents of violent conflicts decreased. After the project ended, however, the fragile peace abruptly deteriorated after a series of violent incidents in late 2008 and early 2009.

In March 2009, one local peace-building organization, Riam Riam, warned of escalating conflict between the Turkana and Dasanech following a series of deadly attacks and counter attacks.[14] Most of the killings looked like revenge executions and mirrored the events that triggered the area's 2004 war and threatened the security of the South Omo Delta and the entire Ilemi Triangle region. Riam Riam predicted that the conflict would intensify without urgent return to dialogue and problem-solving forums.[15]

A Catholic priest residing in the Turkana area wrote how up to 1,000 locals took refuge at the mission compound after violent conflicts killed more than 60 people. "The last year has been a turbulent one in Turkana. As well as coping with the effects of a severe drought, which has killed much of the livestock, leaving many hungry, an armed dispute has broken out between the Turkana and the Dassananch tribes – both of which are parishioners." Limited facilities and overcrowding have resulted in a serious health hazard, including cases of malaria and cholera.

Similar conflicts have occurred in the surrounding region and risk escalating violence. In late February, a Kenyan policeman was killed during an incident at the Kenya-Ethiopia border when Merille tribesmen were refused entry into Kenya to graze their animals.[16] This event is seen as part of an ongoing resource conflict and recurring attacks involving Merille. An incident on the Kenya-Southern Sudan border resulted in the death of two army men and the injury of six others by Toposa militia at the Nadapal region. Kenya has set up security bases in Nadapal, but clashes are still frequent. Between January and April 2009, 70 incidents occurred in Uganda's Karamoja Cluster resulting in 31 deaths and the loss of 5,464 livestock on the Kenyan side. Over 60% of the incidents were cross-border conflicts involving parties from Uganda, Sudan and Ethiopia. A vast wetland near the Kenya-Sudan border known as the Nadapal Triangle, which provides water and pasture for herds, has triggered a border dispute causing rampant insecurity and fighting between the Turkana and Toposa.[17]

The proliferation of small arms in southern Sudan has exacerbated the effects of cattle-raiding and grazing land conflicts between the area's pastoralist groups.[18] Sudan's Eastern Equatorial State borders Kenya's Turkana District as well as Ethiopia and Uganda, and was the center of the country's civil war (1983-2005). It remains one of the most volatile and conflict-prone

---

[13] The Turkana-South Omo Conflict Mitigation Project was funded by Oxfam Great Britain and USAID, and implemented by Riam Riam Turkana (RRT) and Ethiopian Pastoralist Research and Development Association (EPaRDA). For more information, see: http://eastafrica.usaid.gov/(S(pmx5eu3ieiwr1n45ewgkaqqq))/proxy/Document.1027.aspx.

[14] See the March 2009 report, "Conflict Early Warning Alert Turkana North District Turkana-Dasanesh Corridor," which details these incidents: http://www.cewarn.org/reports/Alerts/ken/Turkana-Dassenech%20Corridor.pdf.

[15] Riam Riam noted that in addition to these incidents, peace building efforts had been undermined by relaxed peace efforts by communities, lack of funds to support peace initiatives, lack of commitment from the Ethiopian local authorities, and the abstraction of EPaRDA to continue with peace initiatives in the South Omo area by the Ethiopian government.

[16] Bii, Barnabas. 28 February 2010. "Tension high at Kenya-Ethiopian border," *Daily Nation*. Available at: http://www.nation.co.ke/News/-/1056/870536/-/vr4ddd/-/index.html.

[17] Oywa, John. 21 April 2010. "Living on the crosshair of enemies," *The Standard*. Available at: http://www.standardmedia.co.ke/InsidePage.php?id=2000008124&catid=459&a=1.

[18] Sudan Human Security Baseline Assessment. April 2010. "Symptoms and Causes: The Insecurity and Underdevelopment in Eastern Equatorial," *Sudan Issue Brief* 16. Small Arms Survey on Sudan Human Security Baseline Assessment (HSBA) and Danish Demining Group. Available at: http://www.smallarmssurveysudan.org/pdfs/HSBA-SIB-16-symptoms-causes.pdf.

states in southern Sudan. Since 2005, thousands of small arms have remained in the hands of local pastoralists and are openly being traded along traditional cattle routes on the Ethiopian and Kenyan borders.[19] "The widespread possession of firearms allows relatively small and loosely organized groups to raid large numbers of cattle. The absence of state security and the breakdown of traditional village authority structure has exacerbated the crisis," said the report.

Violent, surprise attacks by gangs of several hundred men armed with small arms are common, and the availability of small arms makes violent struggle an appealing recourse to redress scarcities of natural resources.[20] Research found that traditional grazing areas were increasingly insecure due to armed livestock raids, causing more secure pasture to be badly overgrazed. The use of violence to gain greater access to land and cattle had, therefore, caused the deterioration of the same resources the attacks had intended to secure. The proliferation and use of small arms is creating a climate of insecurity and impunity that is making it increasingly difficult for many pastoralists and fishers to sustain their livelihoods.

The Kenyan government is currently implementing the disarmament of Turkana and West Pokot pastoralists, despite fears of attacks from Ethiopian and Sudanese pastoralists. The Kenyan government has reportedly increased security forces in the area to protect disarmed Kenyans.[21] Further from the lake, Turkana pastoralists who have been living and grazing their cattle in Uganda for almost 30 years have returned to Kenya to avoid a Ugandan disarmament program.[22] Ugandan security forces have been deployed to protect disarmed Ugandan pastoralists from attack by Kenyan and Sudanese pastoralists.

7. Recommendations and the Way Forward

1. Halt construction and financing of Gibe 3 Dam. Communities near Lake Turkana live a fragile and vulnerable existence. Their natural resource base is dwindling, conflict and violence are common, and virtually no safety net exists. The Gibe 3 Dam is the latest threat which would damage the Lake Turkana ecosystem, critically undermining their resource base. Most importantly, Lake Turkana communities and community groups with whom we spoke oppose the Gibe 3 Dam and the impacts it would have on Lake Turkana. Construction of the Gibe 3 Dam should be halted immediately. International development institutions and international financiers should halt any existing or future support for Gibe 3 Dam.

2. Urgently review and evaluate the recent failed Omo River flows (2007 – 2009). Based on interviews and community discussions, it became clear that the last three years have been a critical time affecting the water levels of Lake Turkana. In particular, the annual flooding of the Omo River was reportedly very small or did not occur in 2007, 2008, and 2009. While this coincides with the regional drought, the Omo River Basin was not expected to be so severely affected by the drought, as the flood is generated by rainfall over Ethiopia's western highlands, which was less affected by the drought. In particular, eyewitnesses reported sufficient rains around the Omo's headwaters in early to mid 2009, yet no flood resulted. An urgent and independent review of the recent failed Omo River floods (2007 - 2009), the subsequent impacts on Lake Turkana, and any contributing factors should be undertaken.

---

[19] Ibid.

[20] "Armaments, Environments: Small Arms and the Control of Natural Resources." 2003. African Centre for Technology Studies, Nairobi, Kenya.

[21] Oywa, John. 22 April 2010. "State pledges to protect herders from external attacks," *East African Standard*. Available at: http://www.standardmedia.co.ke/InsidePage.php?id=2000008238&catid=159&a=1.

[22] "Turkana Leave Karamoja to Avoid Disarmament." 27 November 2001. UN Integrated Regional Information Networks. Available at: http://www.hartford-hwp.com/archives/36/522.html.

3. Implement a participatory, Omo-Turkana transboundary management institution. Unilateral decisions by the Ethiopian government over the use of the Omo River could have widespread, disastrous effects for downstream Kenyans who rely on Lake Turkana. As a transboundary watershed, the Omo-Turkana basin lacks a basin-level management system. In particular, the basin would benefit from a basin level management framework. Development of a community-driven, transboundary basin management initiative would be particularly effective in ensuring that those who rely on the resource could participate in and provide inputs about the use of the basin.

4. Promote political empowerment of the area's communities. The people of Lake Turkana have a clear voice about what they need and want for their communities and the future of their peoples. Promoting the political empowerment of the people of Lake Turkana could help them to more effectively interact with their political representatives and the Kenyan political system. Political empowerment could, in the long term, help ensure that the area receives sufficient government investments in infrastructure, social service staff, and the local economy. Political empowerment could help local communities leverage the power of the political system to help protect and strengthen their lives and livelihoods.

5. Promote long-term area peace building. Conflicts among the area's indigenous communities have been a long-term problem that is deeply rooted in resource scarcity and marginalization. Resolving the conflicts will require long-term commitments to peace-building and to strengthening the region's political and economic status. We further support the recommendations of local peace building NGO, Riam Riam:

- Facilitate local meetings to discuss local conflict and ways to reduce it.
- Disseminate the proceedings and resolutions of meetings to both communities to cool down tempers and the cycle of revenge, and instead focus on problem-solving rather than using violence to answer the wrongs that one group has committed against the other.
- Educate communities on modern government judicial systems of practicing restorative justice to curb extra-judicial killing advocated by communities.
- Seek commitments from the Ethiopian government to support local involvement in peace-building.

6. Analyze the greater region's risks for conflict. Lake Turkana is the heart of a tumultuous, isolated frontier where survival is a daily task. Insecurity and conflict are frequent. Climate change, political neglect, and projects like Gibe 3 Dam could destabilize the region, pushing it further toward explosive violence. Comprehensive analysis of the region's conflict risks could prove invaluable to regional and international interests seeking to reduce the risks of a widespread regional conflict, minimize degradation to the area's resource base, strengthen communities and improve flexibility and resilience in their livelihoods.

Appendix 1: List of meetings and interviews during field visit (23 March – 2 April 2010)

	Location	Meeting Description
1	Kerio	Community discussion in Kerio village
2	Ileret	Community discussion in Ileret Town
3	Ileret	Interview of fish trader
4	Ileret	Community discussion in Selucho
5	Ileret	Discussion with fish dryers
6	Kangagat	Community discussion in Kangagat village
7	Kalakol	Discussion with Kenyan Marine and Fisheries Resource Insititute (KILOMETERSFRI) staff
8	Kalakol	Discussion with Kalakol community and leaders
9	Lodwar	Interview with long time missionary
10	Lodwar	Meeting with local community-based organizations
11	Nairobi	MP Ekwe Ethuwu, Kenyan Parliament
12	Nairobi	Meeting with Kenyan NGOs

Appendix 2: Lake Turkana area political administration

Kenya is divided into eight provinces, each administered by a Provincial Commissioner. The provinces are further divided into 46 districts and 262 divisions. Divisions are separated by locations and then sublocations. The Lake Turkana area is overseen by two administrative districts in two neighboring provinces. The western half of the lake falls within Turkana District of the Rift Valley Province, while the eastern half falls within Marsabit District of the Eastern Province.

One Member of Parliament is elected by each of Kenya's 210 constituencies. There are three constituencies in Turkana District and three in Marsabit District, for a total of six Members of Parliament representing the interests of Lake Turkana communities. Turkana District on the lake's western shore has three constituencies: Turkana North (MP John Munyes, PNU); Turkana Central (MP David Ekwe Ethuro, PNU); and Turkana South (MP Josephat Koli Nanok, ODM). Marsabit District on the eastern shore of Lake Turkana has three constituencies: North Horr Constituency (MP Francis Chachu Ganya, ODM); Saku Constituency (MP Hussein Sasura, ODM); and Laisamis Constituency (MP Joseph Lekuton, KANU). Members of Parliament can request funds for local projects from the Constituency Development Fund, overseen by a parliamentary committee.

Rural residents are also served by County Councils, which receive and implement funds for local needs. County Councils (as well as municipalities) are directly overseen by the Ministry of Local Government, which authorizes budgets and approves financial audits of county councils. Constituencies are divided into wards, which are used to select councillors. The Marsabit County Council and the Turkana County Council both serve Lake Turkana area residents. Turkana County Council has 46 councillors. (The town of Lodwar in Turkana District is served by the Lodwar Municipality, not the Turkana County Council.) Local councillors and Members of Parliament are both elected during general elections, which take place every five years. The last general elections were held in 2007.