



LAKE TANGANYIKA
FLOATING HEALTH CLINIC

From Curse to Cure

A Special Report on the Impact of Energy Exploration & Production in the Lake Tanganyika Basin

Part One of a Series on Integrated Development in Africa's Great Lakes Region



WAVE

Water Based Aid, Value, Engagement

The work of the Lake Tanganyika Floating Health Clinic



WAVE

Water Based Aid, Value, Engagement

The Lake Tanganyika Floating Health Clinic (LTFHC) has been helping the communities that live around the lake basin for more than half a decade.

In this almost wholly neglected area we:

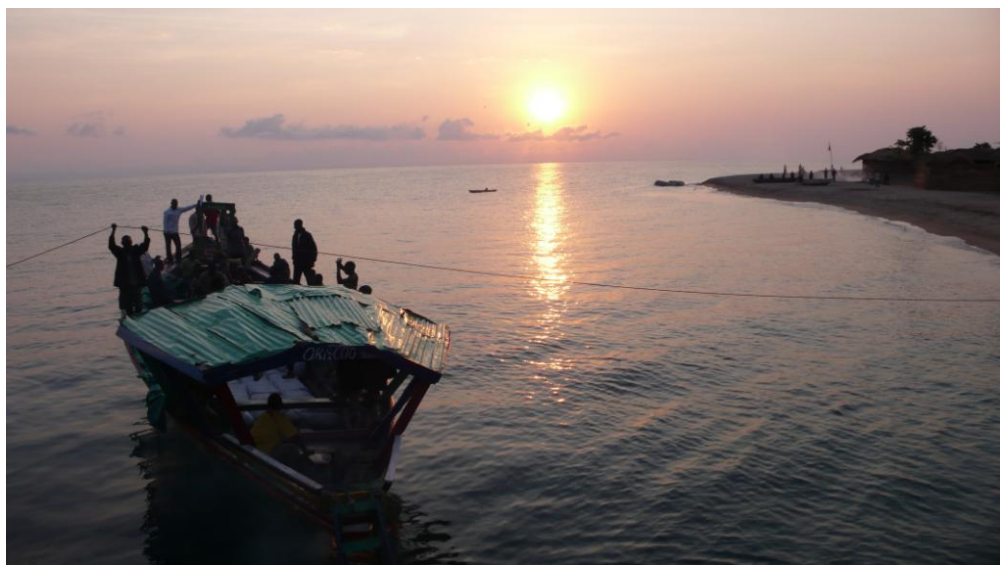
- deliver vital healthcare
- distribute necessary medical supplies
- establish important communication hubs
- gather essential medical data
- build strong relationships with the people and the governments of the region

This conflict ridden, resource rich region has become vital to the well-being and interests of the planet and our work is now recognized as crucial to its stable growth and development.

Describing the volume and variety of the work we undertake is a task in itself, so we have synthesized our activity into three representative words: Aid, Value, Engagement. Because we use the Lake itself as our highway, we call it water based. To make all this easy and convenient to remember, we call the work of the LTFHC...

WAVE

Water Based, Aid, Value, Engagement





Regional cooperation and multiple stakeholder partnerships increase the impact and effectiveness of development in the African Great Lakes region.

Investment in Exploration and Production (E&P) of petro-based sources of energy and rare minerals in the Great Lakes region has boomed over the past two years after several new oil and gas reserves were discovered offshore and inland in East and Central Africa. These new oil and gas finds have boosted current production rates, and have the potential to provide additional sources of income to some of the poorest countries in the world. Yet the risks associated with exploratory drilling for oil and gas may exceed the benefits of that resource wealth. Contributing factors that amplify these risks include poor infrastructure, political interference, uncertain regulatory frameworks, instability in the region, and little to no contingency planning or capacity building initiatives implemented in tandem with E&P activities. Without an integrated development approach, regional cooperation, and risk mitigation practices, the health and livelihood of millions of people in Africa's Great Lakes region will continue to be at risk, as well as the environment and investments pumped into the region.

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The Importance of Africa’s Great Lakes

The Great Lakes of Africa include some of the largest and most ecologically diverse freshwater systems on the planet. Twisting down the two arms of the Great Rift Valley, the lakes are located in nine countries in Central and East Africa. Eight of the 15 lakes in this region are considered "Great Lakes," one of which is Lake Tanganyika - the second largest and second deepest freshwater lake in the world.

Each lake has its own ecosystem and population of unique fish, found nowhere else in the world, and supports tens of millions of people who live in the lakes' catchment basins and rely on fish as their main livelihood and source of food. They share the lakes' resources among multiple countries, many of which are still recovering from conflict and have some of the highest rates of poverty and maternal and child mortality in the world. They also have some of the highest human birth rates in the world averaging around three percent.

This fragile region and its vulnerable populations are already experiencing adverse effects from climate change, pollution, and poor resource management, protracted conflict and under-investment in infrastructure and development in the region. This is further exacerbated by an increased demand for global resources (energy, water, and food) and the spread of conflict in the region from the renewed fighting in the Democratic Republic of the Congo's (DRC) eastern provinces.

The risks increase substantially when considering the negative impact of resource extraction in a region so fragile. A small oil spill – and the inability to deal with one – could kill an entire population's primary source of protein, lowering the health rates in the region, increasing poverty and hunger, and further straining taut relations with neighbors that could easily spark another cross-border conflict over increased demand and competition for food, water, and energy resources.

The entangled, complex issues in the Great Lakes region only magnify these risks and perpetuate the region's vulnerability and volatility. Misappropriated funds focusing predominantly around Goma and Bukavu (DRC) have created a security vacuum in the areas that were truly post-conflict after the Second Congo War ended. This security and development vacuum places Africa's Great Lakes region and its already fragile human populations and ecosystems further at risk and vulnerable to militarizing tribes affiliated with global terrorist networks and antagonistic, ethnic-driven state autocrats in the region.

Mitigating Risks of Energy Extraction in a Region Rife with Conflict

To break this cycle of conflict and risk, WAVE published *From Curse to Cure*, a comprehensive



paper that examines current activities conducted by the E&P industry and mining sector, the costs and benefits of energy extraction, and its impact on the security, environment, health and socio-economic development of the Great Lakes region - in particular the Lake Tanganyika basin. WAVE recognizes E&P activity will only increase in the coming years, including interest in Lake Tanganyika's natural resources, as a result of a new survey conducted by Beach Petroleum that indicates large petroleum deposits lie under her lakebed.

With the inevitable draw of foreign interest in Africa's resources and burgeoning economies, WAVE provides an informative brief on today's complex affairs in the Great Lakes region and lays out a concise blueprint for action to inform policy makers, regional leaders, and multiple stakeholders on how to develop a more effective, cross-sectoral approach for sustainable resource management and development in the Great Lakes region, such as:

- Programs that enhance peacekeeping and good governance initiatives by recognizing indigenous migratory patterns and intermixed populations – factors that can unwittingly contribute to instability in this transboundary region if ignored;
- Transparency initiatives that ensure transparency of revenue and production, and hold ministries accountable to redistribute energy wealth to its underserved communities;
- Collaboration tools to develop and integrate risk mitigation practices into regional socio-economic development programs using a cross-sectoral approach.

These recommendations, among others, enhance the aptitude of the region's vulnerable populations and fragile ecosystems, to absorb the shocks of climate change, political conflict and the potential negative effects of mineral and energy extraction activities.

Why Lake Tanganyika?

The Lake Tanganyika basin, home to over 12 million impoverished people, is the epicenter of major cross-sectoral development concerns, including: water and energy security, climate change, public and women's health, the environment and mismanaged resources, complex geopolitics and post-conflict development. Lake Tanganyika is used as a case study in *From Curse to Cure* to highlight the broader transboundary issues in the African Great Lakes region and the geopolitical dynamics between Lake Tanganyika's Riparian Countries (the DRC, Tanzania, Burundi, and Zambia), influential regional players such as the governments of Rwanda and Uganda, and the many militias scattered along the porous borders of these developing countries.

Transboundary issues covered in this paper include cross-border disputes and uninhibited movement across these porous borders by armed militias increasingly influenced by terrorist networks in East Africa; refugees and internally displaced people (IDPs); isolation of extremely impoverished populations; increasingly vulnerable infrastructure; energy, water, and food security; illicit trade activities; and mismanaged resources and impact on the environment. The latter issue is viewed through the lens of Lake Tanganyika's unique biodiversity and fragile ecosystem, as are the risks and benefits of E&P activity in its catchment basin.

WAVE examines in *From Curse to Cure* the innovative development programming opportunities in a region easily misunderstood by foreign investors and stigmatized from years of protracted conflict and top-down foreign aid development initiatives. A key component highlighted in this paper is regional cooperation through engagement of multiple stakeholder partnerships with a development approach focused on results and local ownership.

From Curse to Cure provides insight from WAVE and its staff of local experts through the Lake Tanganyika Floating Health Clinic to ensure qualitative socio-economic development by the E&P industry and regional stakeholders to support the needs of the lake's population while underscoring the benefits of investing in long-term risk mitigating development programs. This cost-effective measure saves development assistance dollars, builds a stronger economic base for developing countries, and decreases risk factors for the foreign investor, thereby increasing market value and investor profit in Africa's emerging economies.

WAVE introduces a set of policy recommendations and guidelines that use an intermixed



approach of bottom-up and top-down best practices for development in the Lake Tanganyika basin. This includes ways to engage the private sector and collaborate on programs that reduce their environmental impact while catalyzing development programs that the local stakeholder weighed-in on during the decision-making process before project implementation.

WAVE reviews key regional institutional bodies, their responsibilities and limitations, and provides a set of recommendations on how to improve upon their charters to increase their effectiveness as platforms for regional cooperation, and as mediators and enforcers of transboundary agreements, such as the Lake Tanganyika Authority (LTA) and the *Convention for Sustainable Management of Lake Tanganyika*. Many of these recommendations address the ineffective engagement in a region struggling to shed its reputation as a vulnerable population incapable of pulling itself out of poverty.

“WAVE’s policy and development recommendations to stakeholders in the Lake Tanganyika basin and the Great Lakes region is a blueprint designed to be adapted in other energy rich regions of Africa, as well as other water-centric communities across the globe.”

Blueprint for the Great Lakes Region and Beyond

WAVE's policy and development recommendations to stakeholders in the Lake Tanganyika basin and the Great Lakes region is a blueprint designed to be adapted in other energy rich regions of Africa, as well as other water-centric communities across the globe. This blueprint is applicable to multiple stakeholders with intersecting interests in Africa, whether applied to build health infrastructure, nurture emerging economies, extract minerals and energy resources responsibly, streamline production rates, end poverty, lower maternal and child mortality rates, save endangered animals, create sustainable fisheries, protect one of the largest freshwater bodies in the world, or encourage good governance and enforce security along porous borders. All of these intersect one another, yet most development programs address only one or two of these connections, limiting the sustainability and outcomes of regional development initiatives.

The Time to Engage is Now

In reaction to the spread of fighting along the eastern provinces of the DRC in the past year, the international humanitarian community has placed the Great Lakes region at the top of its agenda. The international community and regional leaders have agreed to a new three-pronged approach to end the protracted conflict in the Great Lakes region by supporting political negotiations and reforms, economic packages worth billions of dollars, and through the creation of an additional security force to complement the current UN peacekeeping mission in the DRC.

Through the concerted effort of the UN, the International Conference on the Great Lakes Region, the Southern African Development Community, and the African Union, the *Peace, Security and Cooperation Framework for the DRC and the Region* was signed by 11 countries in February 2013. The comprehensive agreement requires action by the region's leaders, with the support of the international community, to address the underlying causes of the recurring security and development challenges in the region, and includes rigorous oversight mechanisms to ensure that benchmarks are met.

This peace initiative is a new method to address the persistent instability in the Great Lakes region by breaking the cycle of conflict through preventive measures (e.g., economic reforms to increase trade opportunities and invest in infrastructure), rather than manage crisis in the aftermath of fighting, and enhances private-public partnership opportunities to support investment and development in the chronically unstable but resource rich Great Lakes region.

WAVE applauds this new initiative focusing on risk mitigating measures, such as boosting economic opportunities, and looking over the horizon beyond the singular application of a military solution to address the region's political conflict. However, the implementation of this new framework is extremely important. Previous top-down interventions that have shared similar rhetoric in their peace-building framework have failed. Many scholars in peacekeeping initiatives, regional experts, and human rights activists have voiced their concern that UN peacekeeping efforts in the Congo have largely been ineffective, even when given a strong mandate and enormous resources. What makes this *Peace, Security and Cooperation Framework for the DRC and the Region* different?



One important variable to make this *PSC Framework* a success moving forward is through the creation of realistic objectives that are actually achievable and shared by local and regional stakeholders (government officials, military and militia forces, warring mai-mai). Secondly, the international community must hold each party accountable for their actions and to meet each benchmark in the peacekeeping process. A third component in the peace-making process is to create alternatives to current illicit activities through job creation, education and technical training, and increased economic opportunities through infrastructure development programs, all of which should be developed in partnership with local Civil Society Organizations through a bottom-up, integrated, cross-sectoral approach.

For the first time in decades, the Great Lakes region has the chance to silence the fighting, boost trust and trade between neighbors and international partners, build infrastructure that supports health systems and education, empower women, and create economic opportunities that will help the countries forge a path to prosperity, good governance, and lasting stability; but only if mechanisms are carefully crafted using an integrated, cross-sectoral approach to development.

Summary of Points

- The Lake Tanganyika basin is the epicenter of major cross-sector development concerns including water and energy security, climate change, health, the environment, mismanaged resources, complex geopolitics and post-conflict development;
- There are very significant and newly-found deposits of oil, gas and minerals in and near Lake Tanganyika and along Africa's Great Lakes region; this has initiated a new race to extract energy resources without comprehensive Environmental and Social Impact Assessments or regional contingency and intervention plans, further endangering the Great Lakes' fragile ecosystems and vulnerable populations;
- Local leaders, community groups and specialized international organizations often have a better understanding of the region than foreign companies who are new to the region and just beginning to develop relationships with government and local stakeholders, and are crucial to developing local buy-in to (oil and gas) Exploration and Production programs;
- Economic development of the lake - which ignores geopolitical, environmental and water management issues - will cause irreversible ecological damage to the lake, decimate lakeside communities who are lake-dependent and risk igniting resource disputes in the transboundary waters of Lake Tanganyika.

Putting Lake Tanganyika's Global Importance into Perspective

- Lake Tanganyika is the second largest freshwater lake in the world by volume, the second deepest and world's longest freshwater lake, and one of 20 ancient lakes on earth;
- Lake Tanganyika contains 17% of the world's fresh water and is home to over 1,500 species including 600 unique aquatic species not found anywhere else;
- Over 12 million people depend on Lake Tanganyika as a food and economic source, and live in extreme poverty with little access to health care systems;
- Lake Tanganyika's population growth rate is 3%, one of the highest in the world;
- The U.S. State Department estimates that by 2025, 67% of the world's population could be living under 'water-stressed' conditions, where lack of fresh water becomes an impediment to health and peace;
- With the global population estimated to rise from the current 6.85 billion to 8 billion in the next 20 years, demand for food, water and energy resources will soar, creating increased resource vulnerability;
- No UN Millennium Development Goal (MDG) can be met without proper attention to water management, including eradication of poverty.

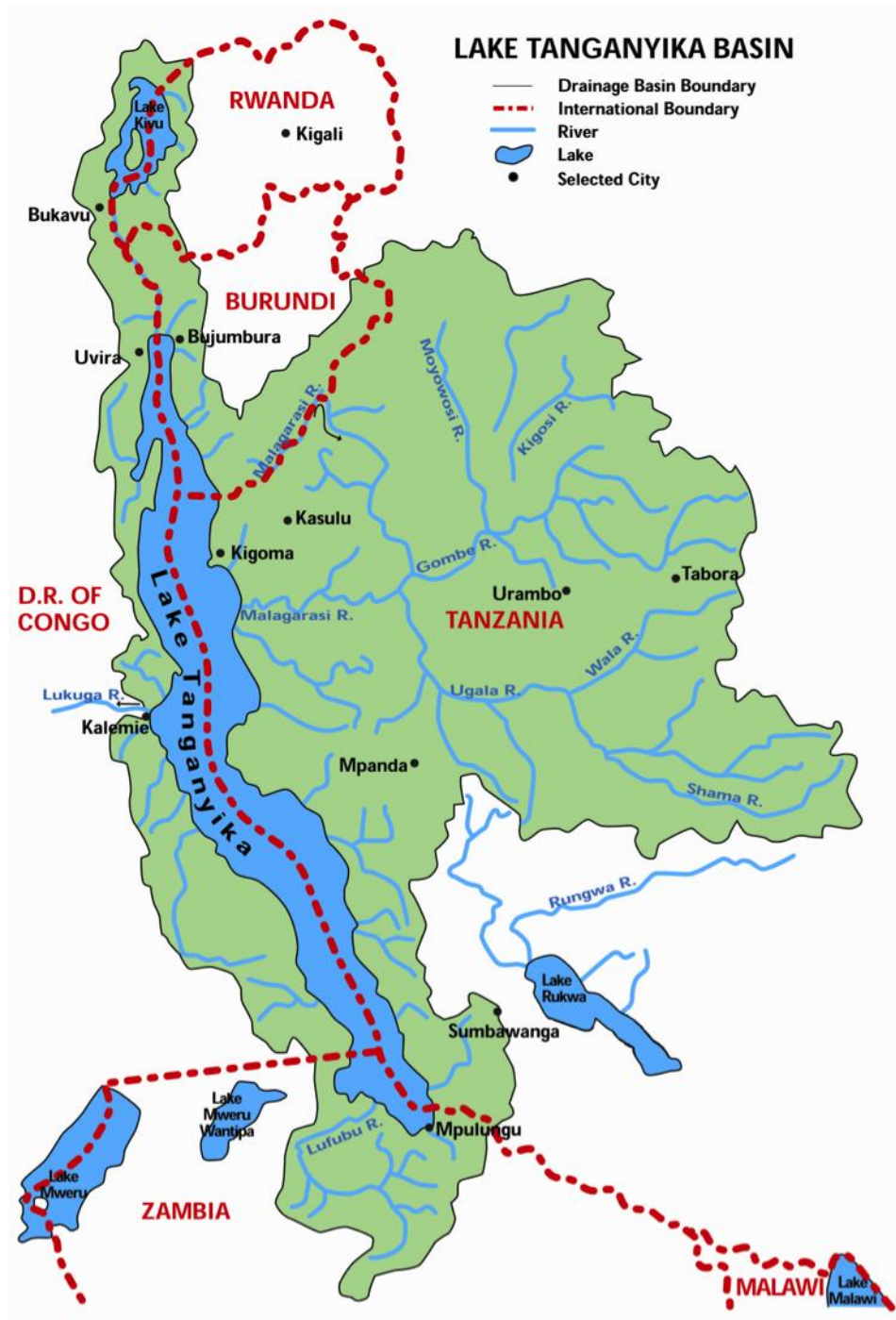


Figure 1. Source: International Lake Environment Committee[i]

[i] www.ilec.or.jp/eg/lbmi/pdf/22_Lake_Tanganyika_27February2006.pdf

About Lake Tanganyika Floating Health Clinic

The Lake Tanganyika Floating Health Clinic (LTFHC) is an international NGO whose goal is to create healthcare infrastructure and provide health services to the 12 million acutely impoverished people living in the Lake Tanganyika Basin, one of the most remote regions in the world.

The LTFHC has a very diverse staff base which enables it to provide medical care and collect unique information from the field in this remote area. Medical and logistical experts work alongside former child soldiers, refugees from multiple backgrounds, tribes, and factions in the Great Lakes region.

Recognizing the complexity of the region, the LTFHC has mobilized itself to engage on policy, legislation and technologies that promote effective development, transparency and ensure the safety of Lake Tanganyika's populations.



Get Involved

The LTFHC is ready to work with organizations that are issue-based or project-based, providing a range of data, knowledge, expertise and the capabilities to help global and local initiatives succeed.

To find out more about our work on Lake Tanganyika, talk to one of our staff or receive our full brochure, please make contact now.

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