

# In Depth Case Study of the Lake Tanganyika Convention<sup>1</sup>

*This case study on the Convention on the Sustainable Management of Lake Tanganyika (“Lake Tanganyika Convention”<sup>2</sup>) is one of a series that has been prepared as part of the Global Environment Facility (GEF) Good Practices and Portfolio Learning in GEF Transboundary Freshwater and Marine Legal and Institutional Frameworks Project International Waters Governance project. The objective of these case studies is to provide insight into how these agreements were negotiated and how well they are working. Each case study has been peer reviewed by one or more experts with direct knowledge of the agreement being analyzed.<sup>3</sup>*

## 1. Background

### 1.1. Geographic context

Lake Tanganyika is located in Africa’s Western Great Rift Valley, between the latitudes of 03°20’ and 08°48’ South and the longitudes of 29°03’ and 31°12’ East (Figure 1). The shoreline is divided between Burundi (8% of the shoreline), the Democratic Republic of Congo (“DRC” - 45% of the shoreline), Tanzania (41%), and Zambia (6%).<sup>4</sup> This perimeter is 1, 838 km long in total and shoreline substrates range from sand to rock, and marsh. Both the longest and the second deepest in the world, the lake contains 17% of the world’s free freshwater.<sup>5</sup> In total the lake surface area is 32, 600 km<sup>2</sup> and the corresponding catchment

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<sup>1</sup> This Case Study was prepared by researchers at the Good Practices and Portfolio Learning in GEF Transboundary Freshwater and Marine Legal and Institutional Frameworks Project. We thank Hilary Norris, Henry Mwima, Maaria Curlier, and Theresa Etmanski for their work.

<sup>2</sup> [“The Convention”] Adopted in Dar es Salaam, Tanzania, on 12 June 2003. On 30th July, 2004, the Convention was formally registered with the Commission of the African Union. In September 2005, the Convention entered into force and by the end of November 2007, all the four Contracting States had ratified the Convention. Dr Henry Mwima, personal correspondence 3 March 2011. The Convention text is available at <http://lta.iwlearn.org/documents/the-convention-on-the-sustainable-management-of-lake-tanganyika-eng.pdf/view> (last visited 9 May 2012).

<sup>3</sup> For a detailed description of the provisions of the Lake Tanganyika Convention, please see White & Case, *International Waters: Review of Legal and Institutional Frameworks*, UNDP-GEF INTERNATIONAL WATERS PROJECT, (Apr. 5, 2011) 163, available at <http://iwlearn.net/publications/misc/governing-marine-protected-areas-getting-the-balance-right-main-report-lower-resolution-2mb>.

<sup>4</sup> G. Hanek, E. J. Coenen & P. Kotilainen, *Aerial Frame Survey of Lake Tanganyika Fisheries*, FAO/ FINNIDA RESEARCH FOR THE MANAGEMENT OF THE FISHERIES ON LAKE TANGANYIKA, (1993), available at <ftp://ftp.fao.org/fi/ltr/TD09.PDF>.

<sup>5</sup> Kelly West, *Lake Tanganyika: Results and Experiences of the UNDP/GEF Conservation Initiative RAF/92/G32* in Burundi, D.R. Congo, Tanzania, and Zambia, (Feb. 28 2001) at ¶ 1.1.1.; G.W. Coulter, *Lake Tanganyika*, in K. Martens, B. Goddeeris & G. Coulter (eds.), *Speciation in Ancient Lakes* 44 ARCHIV FUR HYDROBIOLOGIE 13-18 (1994).

area is 223, 000 km<sup>2</sup>.<sup>6</sup>

Geologically, the lake is long-lived, forming as a result of rifting that separated the African continent, and is approximately 12 million years old.<sup>7,8</sup> While 150,000 to 500,000 years ago lake levels were low, and it was divided into three sections with varying hydrology, biology and chemistry, Lake Tanganyika's levels have been relatively stable over the last millennia and current modern annual variation is approximately 1 metre.<sup>9,10</sup>

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<sup>6</sup> L.C. BEADLE, THE INLAND WATERS OF TROPICAL AFRICA: AN INTRODUCTION TO TROPICAL LIMNOLOGY (2nd ed. Longman, 1981).

<sup>7</sup> C.A. Scholz & B.R. Rosendahl, *Low lake stands in Lakes Malawi and Tanganyika, East Africa, delineated with multifold seismic data*, 240 SCIENCE 1645-1648 (1988).

<sup>8</sup> A.S. Cohen, M.J. Soreghan & C.A. Scholz, *Estimating the age of formation of lakes: an example from Lake Tanganyika, East African Rift system*, 21 GEOLOGY 511-514 (1993).

<sup>9</sup> A.S. Cohen, M.R. Talbot, S.M. Awramik, D.L. Dettman & P. Abell, *Lake level and paleoenvironmental history of Lake Tanganyika, Africa, as inferred from late Holocene and modern stromatolites*, 109 GEOLOGICAL SOCIETY OF AMERICA BULLETIN 444-460 (1997).

<sup>10</sup> J.M. Edmond, R.F. Stallard, H. Craig, R.F. Weiss & G.W. Coulter, *Nutrient chemistry of the water column of Lake Tanganyika*, 38 LIMNOLOGY AND OCEANOGRAPHY 725-738 (1993).



**Figure 1. Tanganyika Basin**<sup>11</sup>

While numerous small rivers feed the lake, only the Lukuga River is an outlet, and most water is lost through evaporation.<sup>12,13</sup> Lake Tanganyika is a meromictic lake, meaning that the non-circulating hypolimnion (bottom layer) and circulative epilimnion (upper layer) do not mix. Organisms are limited to the oxygenated zone, which extends from 50 to 250m,<sup>14</sup> and the habitat for benthic organisms (which rely on substrate for part of their life cycle) is limited to a thin fringe.<sup>15</sup>

<sup>11</sup> S.E. Jorgenson, G. Ntakimazi, & S. Kayombo, *Lake Tanganyika: Experience and Lessons Learned Brief*. On file with authors.

<sup>12</sup> *Supra* note 6.

<sup>13</sup> G.W. COULTER, *LAKE TANGANYIKA AND ITS LIFE* (1st ed. Oxford University Press, 1991).

<sup>14</sup> R. H. Lowe-McConnell, *Fish faunas of the African Great Lakes: Origins, diversity and vulnerability* 7 CONSERVATION BIOLOGY 634-43 (1993).

<sup>15</sup> *Supra* note 5.

## 1.2. Biological context

Lake Tanganyika is one of the African lakes famous for their endemic cichlid fishes, which are the largest, and most diverse radiation of vertebrates.<sup>16</sup> However, Lake Tanganyika is unique in its ability to also support non-cichlid fishes and invertebrate organisms, including gastropods, bivalves, ostracods, decapods, copepods, leeches, sponges. With over 1,400 species of plants and animals, it is one of the world's richest freshwater ecosystems. Over 600 of these species are endemic to the Lake Tanganika basin, making it an important contributor to global biodiversity.<sup>17</sup> This vast biodiversity within a limited area has facilitated incredible genetic variation and compelling evolution of species, for example, the 'evolutionary plasticity' of the jaws Tanganyikan cichlids.<sup>18</sup> This makes Lake Tanganyika an important living laboratory for research in evolution and ecology.

## 1.3. Socio-political context

The four nations sharing the Lake Tanganyika basin are among the poorest in the world, and are some of the lowest ranked of the 169 nations in the UNDP Human Development Index (HDI) as shown by the statistics in Table 1. Approximately 10 million people live in the catchment area, representing a diverse ethnic group of predominantly Bantu origins. At a rate of 2 – 3.2% a year, population is growing rapidly in the area.<sup>19</sup> Swahili is an official national language for the DRC and Tanzania, and is common in Burundi/Zambia lake regions. It is the language of commerce and communications throughout Lake Tanganyika.<sup>20</sup> However, Tanzania and Zambia have historically also been anglophone states, and share different legal traditions from the historically francophone Burundi and the DRC.<sup>21</sup> An important source of income for many in the area, Lake Tanganyika is the "highway" that links the towns of the four nations, as most areas lack sufficient infrastructure for land transportation.<sup>22</sup>

Population movements and their repercussions on society due to ongoing civil wars have affected relationships between riparian nations, particularly in the northern region of the basin. Conflict and internal instability in the DRC since 1995, and in Burundi since 1993, have displaced 385,000 who have sought refuge in Tanzania. Most refugees travel via the lake and settle along its shores.<sup>23</sup>

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<sup>16</sup> J. Snoeks, L. Ruber & E. Verheyen, *The Tanganyika problem: comments on the taxonomy and distribution patterns of its cichlid fauna*, in K. Martens, B. Goddeeris & G. Coulter (eds), *Speciation in Ancient Lakes* 44 Archiv fur Hydrobiologie 13-18 (1994).

<sup>17</sup> *Supra* note 4.

<sup>18</sup> R. Takahashi, K. Watanabe, M. Nishida & M. Hori, *Evolution of feeding specialization in Tanganyikan scale-eating cichlids: a molecular phylogenetic approach*, 7 BMC EVOLUTIONARY BIOLOGY, 195 (2007).

<sup>19</sup> World Bank, Country profiles (Burundi, D.R. Congo, Tanzania, Zambia), (1999) available at <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/0,,pagePK:180619~theSitePK:136917,00.html>.

<sup>20</sup> *Supra* note 5.

<sup>21</sup> *Id.* at 102.

<sup>22</sup> J. E. Reynolds, *Lake Tanganyika Framework Fisheries Management Plan*, FAO/NORWAY PROGRAMME OF ASSISTANCE TO DEVELOPING COUNTRIES FOR THE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES (GCP/int/648/NOR) (1999) available at <http://www.fao.org/fi/projects/fishcode/index.htm>.

<sup>23</sup> *Supra* note 5.

**Table 1:** Human development statistics for the Lake Tanganyika basin nations.<sup>24</sup>

Nation	HDI Rank	GNI per capita (\$)	Life Expectancy at Birth (years)	Mean Years of Schooling (of Adults) (years)
Tanzania	148	1, 334.285	56.947	5.110
Zambia	150	1, 358.516	47.309	6.541
Burundi	166	401.574	51.366	2.690
DRC	169	291.232	48.006	3.758

#### 1.4. Environmental context

Pollution is a major threat to Lake Tanganyika's viability. Industrial, municipal, and residential wastewaters are not currently treated before entering the lake, and riparian governments lack legislation to prevent contamination of the lake. Pollutants include heavy metals, fuel and oil from boats, pesticides, and fertilizers.<sup>25</sup> Increased deforestation has caused increased erosion, so that sediment deposition in the littoral zone (the main habitat area for organisms) is also a threat. Turbidity and changes in substrates can alter habitats, disrupting food webs and primary productivity, which reduces species diversity.<sup>26</sup>

Over-fishing also alters biological community structures and food webs, and may have negative socioeconomic implications through job and livelihood loss.<sup>27</sup> Studies show that fish stocks have already been drastically reduced through fishing activities, which range from commercial industrial operations, to artisanal and subsistence fishing.<sup>28,29</sup>

All of these threats relate to anthropogenic sources. Lack of education on conservation of lake resources, rapid population growth, and poverty all contribute to environmental damage and habitat destruction in the basin. Some protected areas, however, which extend 1.6 km into the lake, do exist: Burundi has the Rusizi Natural Reserve (recently downgraded from National Park) and Kigwena Forest; Tanzania has Gombe Stream National Park and Mahale Mountains National Park; and Zambia has, Nsumbu National

<sup>24</sup> United Nations Development Programme, *The Real Wealth of Nations: Pathways to Human Development*, HUMAN DEVELOPMENT REPORT 2010 (Palgrave Macmillan, 2010).

<sup>25</sup> G. Patterson & J. Makin, *The State of Biodiversity in Lake Tanganyika – A Literature Review: Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika* (UNDP/GEF/RAF/92/G32) (Natural Resources Institute, June 1997) available at <http://www.ltbp.org/FTP/EXEC.PDF>.

<sup>26</sup> A.S. Cohen, R. Bills, C.Z. Cocquyt & A.G. Caljon, *The impact of sediment pollution on biodiversity in Lake Tanganyika*, 7 CONSERVATION BIOLOGY 667-677 (1993).

<sup>27</sup> P. Petit & A. Kiyuku, *Changes in the pelagic fisheries of northern Lake Tanganyika during the 1980s*, 443-455, in T.J. PITCHER & HART, P.J.B. (EDS.) *THE IMPACTS OF SPECIES CHANGES IN AFRICAN LAKES* (Chapman and Hall, 1995).

<sup>28</sup> M.J. Pearce, *Effects of exploitation on the pelagic fish community in the south of Lake Tanganyika*, 425-442, in T.J. PITCHER & HART, P.J.B. (EDS.) *THE IMPACTS OF SPECIES CHANGES IN AFRICAN LAKES* (Chapman and Hall, 1995).

<sup>29</sup> *Supra* note 27.

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<sup>30</sup> *Supra* note 5.

## 2. Negotiation of the Convention

### 2.1 Development of the Convention

Conservation and development initiatives in Lake Tanganyika date back to the 1960s, but were small in scale and primarily operated at the national level.<sup>31</sup> None of these projects addressed the needs of the lake as a whole, and lacking a regional institutional framework for co-ordinated management of the lake, inter-country interaction occurred through ad-hoc consultations.<sup>32</sup>

International projects and studies implemented in the 1990s developed a concept of a regional cooperative approach to Lake Tanganyika's management. In 1991 key individuals from the riparian countries, along with scientists, NGOs, and technical experts convened at a conference to discuss the conservation of Lake Tanganyika's rich biodiversity. The workshop identified some of the main threats to the integrity of the Lake, and several conference participants used the findings to create a proposal for a large scale regional conservation initiative (that would be supported by international funding agencies).<sup>33</sup>

The Lake Tanganyika Research Project (LTR), led by the FAO and FINNIDA, sought to expand the scientific knowledge of fish in order to improve fisheries management.<sup>34</sup> The project was fully operational in 1992, and concluded in December 2001.<sup>35</sup> Along with performing a variety of technical studies in order to improve knowledge and understanding of the lake, the LTR project developed a Framework Fisheries Management Plan (FFMP) for Lake Tanganyika, based on the FAO Code of Conduct for Responsible Fisheries.<sup>36</sup> As part of its focus on improving fisheries management, LTR also examined existing legal and institutional provisions for regional management planning, and recommended that they be harmonized and strengthened.<sup>37</sup>

The LTR Project was supported by another international project dedicated to improving management of the lake. The Lake Tanganyika conservation initiative was among the first projects approved by the Global Environment Facility (GEF) during its pilot phase. In 1995, the "Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika" project (Lake Tanganyika Biodiversity Project - LTBP) commenced. A five-year project

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<sup>31</sup> *Lake Tanganyika Research: Background*, FAO (1999), available at <http://www.fao.org/fi/oldsite/ltr/BGRD.HTM> (last visited Apr. 27, 2012).

<sup>32</sup> *Project Document: Pollution Control and Other Measures to Protect Biodiversity of Lake Tanganyika* RAF/192/G32 in Burundi, Tanzania, Zaire and Zambia, UNDP (1994) at 6.

<sup>33</sup> *Id.*

<sup>34</sup> *Lake Tanganyika Research: Lake Tanganyika Research*, FAO (1999), available at <http://www.fao.org/fi/oldsite/ltr/index.htm> (last visited Apr. 27, 2012).

<sup>35</sup> *Lake Tanganyika Research: Implementation*, FAO (1999), available at <http://www.fao.org/fi/oldsite/ltr/IMP.HTM> (last visited Apr. 27, 2012).

<sup>36</sup> Christophe Magnet, J. Eric Reynolds & Hervé Bru, *LAKE TANGANYIKA REGIONAL FISHERIES PROGRAMME (TREFIP): A proposal for implementation of the Lake Tanganyika Framework Fisheries Management Plan*, FAO/NORWAY GOVERNMENT COOPERATIVE PROGRAMME (July 2000) xii available at <ftp://ftp.fao.org/docrep/fao/006/x8507e/x8507e00.pdf>.

<sup>37</sup> *Id.* at xiii; *supra* note 22, at 6.



involving the four riparian states and the UNDP/GEF, the LTBP sought to utilize a regional approach to sustainable conservation and protection of the Lake's rich biodiversity.<sup>38</sup> The LTBP project had three main outputs: a Strategic Action Programme (SAP) for the sustainable management of Lake Tanganyika, a legal Convention to provide a framework within which the four countries could agree to common management principles and procedures, and a Special Studies programme that would improve the knowledge of the lake's status.<sup>39,40</sup> The SAP defined priority actions for the four countries to undertake, and incorporated many of the same environmental principles and values that would underlie the Convention. It also indicated the strong desire of all riparian countries for the adoption of a legal framework for long-term, cooperative management of Lake Tanganyika, and was adopted by all four riparian countries in July 2000.<sup>41,42</sup>

## 2.2 Negotiation process

### *Description of the process leading up to negotiations*

In 1996, international legal consultants conducted a baseline study of existing legislation within the riparian states to determine key issues to be considered throughout the LTMP.<sup>43</sup> The legal baseline study concluded that much of the existing legislation regarding protection of the Lake was outdated and/or inadequate, and that the establishment of a sustainable institutional framework for cooperation amongst the riparian states was crucial for the success of the LTBP as a whole.<sup>44</sup> The legal baseline study also recommended that a single authority that represented the interests of all four states would best guide the legal harmonization process.<sup>45</sup>

In February 1998 a discussion of the legal baseline study provided an opportunity to review some other legal aspects, most notably: a review of the existing legislations of the states, the implementation of new legislation, existing international water laws and the implications of legislation harmonization and implementing a new regulatory regime. As a consequence, the riparian states agreed on the basic features of the new legal framework, and mandated the legal consultants to begin drafting the Convention.<sup>46</sup> The workshop also produced a report that indicated important objectives, guiding principles, and other suggestions that would guide the drafting team.<sup>47</sup>

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<sup>38</sup> Itpb.org – Overview, LAKE TANGANYIKA BIODIVERSITY PROJECT (2002) available at <http://www.itbp.org/OVIEW.HTM> (last visited Apr. 27, 2012).

<sup>39</sup> *The Strategic Action Programme for the Sustainable Management of Lake Tanganyika* (July 2000) 4 available at <http://www.itbp.org/FTP/SAPFINE.PDF> (last visited Apr. 27, 2012).

<sup>40</sup> *Supra* note 5, at 25.

<sup>41</sup> *Supra* note 39.

<sup>42</sup> Itpb.org – Processes – Legal Convention, LAKE TANGANYIKA BIODIVERSITY PROJECT (2002) available at <http://www.itbp.org/LGLCON.HTM>.

<sup>43</sup> *Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika RAF/92/G32*, MRAG (UN) (1996) available at <http://www.itbp.org/FTP/LGLBR.PDF>.

<sup>44</sup> *Id.* at ii.

<sup>45</sup> *Id.* at 91.

<sup>46</sup> *Supra* note 5, at 102.

<sup>47</sup> C. Cullinan & S. Hodgson, *Recommendations of the Legal and Institutional Workshop Concerning the Contents of the Draft Agreement*, (1998) available at <http://www.itbp.org/FTP/LGLREC.PDF>.



### *Description of the negotiation process*

The first draft of the Convention was circulated among environmental lawyers and key project personnel, and regional consultations soon followed after some slight modifications were made. In order to encourage a time-efficient drafting process, the riparian states agreed to divide into sub-groups, based on common language and legal systems.<sup>48</sup> The groups met in mid-1999 to discuss clause-by-clause the first draft of the Convention, and delegates returned to their countries for national consultations. The Project's legal consultants then revised the English and French versions of the Convention. In November of the same year, riparian state policy members met to discuss the amended text.

Another feature of the negotiation process intended to promote efficiency was that delegates to the legal workshops did not formally negotiate on behalf of their respective governments; the initial drafts of the Convention had the status of working documents produced by the LTBP.<sup>49</sup> Instead of formal negotiations, delegates sought to reach agreement on a text that they felt would be acceptable to their governments. It was expected that an unofficial consensus amongst these senior government officials on the content of the draft Convention would accelerate the formal negotiations and signatures.<sup>50</sup> To facilitate the interpretation and negotiation of the Convention further, the legal consultants responsible for drafting the document provided a commentary on the fourth working draft, so that agreement might be reached more quickly.<sup>51</sup>

The fourth draft of the Convention was agreed upon at the workshop held in November 1999, and circulated among the riparian governments and members of the LTBP.<sup>52</sup> However, with the deadline for the LTBP fast approaching in August 2000, there would be no institution to coordinate the finalisation and signing of the Convention.<sup>53</sup> In order to overcome this, the SAP proposed an Interim Lake Management Body to facilitate the signing of the Convention and the implementation of the SAP.<sup>54</sup> The fourth draft was presented to the Project Steering Committee in May 2000, and the Steering Committee recommended the Convention be finalised and signed as soon as possible.<sup>55</sup>

The Convention was finalized between 2000 and 2003 through regional and national planning executed under the GEF (PDF – B) funded Lake Tanganyika Management

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<sup>48</sup> Tanzania and Zambia are Anglophone and share common law traditions, whereas the DRC and Burundi are francophone and have civil law systems: *supra* note 5 at 102.

<sup>49</sup> C. Cullinan & S. Hodgson. *Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika*, (2000) at 1 available at <http://www.ltbp.org/FTP/LGLOE.PDF>.

<sup>50</sup> *Supra* note 5, at 103.

<sup>51</sup> *Commentary on the Draft Convention on the Sustainable Management of Lake Tanganyika*, ENACT INTERNATIONAL LTD. (June 2000) (forward) available at <http://www.ltbp.org/FTP/LGLCBE.PDF> (last visited Apr. 27, 2012).

<sup>52</sup> *Supra* note 49, at 2.

<sup>53</sup> *Id.* at 3.

<sup>54</sup> *Id.* at 3-4.

<sup>55</sup> *Supra* note 5, at 102.

Planning Project.<sup>56</sup> During this time, GEF funding enabled the Interim Lake Tanganyika Authority to be designed and established, so that coordinated management of Lake Tanganyika could commence before the formal ratification of the Convention.<sup>57</sup> The Convention was formally signed by all four riparian states on June 12, 2003.

### *Description of the substance of the negotiations*

As the efficiency with which the Convention was created might imply, the negotiations of the Convention were relatively smooth. The Convention was based on the philosophy that as a shared heritage, the riparian states have a common interest in protecting the Lake and its resources in a regional and integrated manner.<sup>58</sup> The LTBP workshop report noted consensus among the participant countries regarding basic principles concerning transboundary water and environmental protection, with the states party to many of the same international environmental agreements.<sup>59</sup> These agreements indicated a common acceptance of certain environmental principles upon which the Convention was based.

Agreement on the Convention was also facilitated through the development of the Strategic Action Programme (SAP). Created in parallel to the Convention, the SAP outlines the specific actions to be undertaken in order to achieve the objectives of the Convention.<sup>60</sup> Like the Convention itself, the SAP was also based on shared environmental principles, including the precautionary and polluter pays principles, as well as the principles of preventative action, participation, equitable benefit sharing, and gender equality.<sup>61</sup> The SAP also developed in a similar manner to the Convention, through national and regional consultation.<sup>62</sup> As an additional opportunity for cooperation based on similar principles, the creation of the SAP contributed to the political momentum necessary to progress towards a formal Convention.

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<sup>56</sup> *PROJECT DOCUMENT: PART ONE UNOPS COMPONENTS, Partnership Interventions for the Implementation of the Strategic Action Programme for Lake Tanganyika. Governments of Burundi, DRC, Tanzania and Zambia*, GEF. (2 April 2008) 5.

<sup>57</sup> *Id.*

<sup>58</sup> *Supra* note 51, at 2.

<sup>59</sup> *Supra* note 47, at 1.

<sup>60</sup> *Supra* note 41, at 7-8, 11.

<sup>61</sup> *Id.* at 7-8.

<sup>62</sup> *Id.* at 9 &10.

## 3. The Convention

### 3.1 Overview<sup>63</sup>

The overall objective of the Convention is to “ensure the protection and conservation of the biological diversity and the sustainable use of the natural resources of Lake Tanganyika and its Basin by the Contracting States on the basis of integrated and co-operative management.”<sup>64</sup> This extends beyond the goals of the Lake Tanganyika Biodiversity Project, which focussed on pollution prevention and biodiversity conservation.<sup>65</sup> The Convention seeks to promote harmonization of the riparians’ national legislation concerning the Lake environment,<sup>66</sup> outlining obligations in specific areas of strategic management, among them the prevention of sedimentation (from practices such as deforestation and land degradation,<sup>67</sup> protection of biological diversity,<sup>68</sup> sustainable fisheries management,<sup>69</sup> prevention and control of pollution,<sup>70</sup> navigation, protection and utilization of genetic and biochemical resources . The Convention also requires the signatories to prepare and implement the SAP in order to achieve its aims.

#### *Dispute resolution*

The Convention’s dispute resolution mechanism (Article 29) is modelled on Article 27 of the Convention on Biological Diversity. States are to settle disputes by negotiation. Failing an acceptable negotiation outcome, there are several options including:

- i. Seeking mediation by a Contracting party that is not involved in the dispute.
- ii. Calling on the LTA Executive Director to form a fact finding commission composed of one person nominated by each Party involved (but who are not nationals of the Contracting Party) and chaired by an individual appointed by the nominated members.<sup>71</sup> Parties are to consider the recommendations of the fact-finding commission in good faith and are to share the costs of the commission equally.
- iii. Submitting the dispute to arbitration where a tribunal is created of one person appointed by each disputing Party (they may be nationals) and a President who is either agreed upon by the tribunal members or is appointed by the Secretary General of the African Union. The tribunal, once formed, will make a decision within five months, with the possibility of a five month extension. The decision,

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<sup>63</sup> For a detailed description of the provisions of the Lake Tanganyika Convention, please see White & Case, *supra* note 3, at 163.

<sup>64</sup> The Convention, *supra* note 2 at Art 2 Sec 1.

<sup>65</sup> *Supra* note 51, at 2.

<sup>66</sup> *Id.* at Art 5.

<sup>67</sup> *Id.* at Art 9.

<sup>68</sup> *Id.* at Art 10.

<sup>69</sup> *Id.* at Art 7.

<sup>70</sup> *Id.* at Art 8.

<sup>71</sup> *Id.* at Annex III; If the nominated members of the fact-finding commission cannot agree on a chair within three months, any Party may request the Secretary General of the African Union to appoint a chair providing they are not of the nationality of the Contracting Parties.

once made, is binding on all Parties. Costs of the process are born equally by disputing Parties.

This is intended to maximise opportunity for dispute resolution by providing significant flexibility regarding the settlement of disputes.<sup>72</sup>

### *Financing*

The Contracting States are to contribute equal proportions to the budget of the Lake Tanganyika Authority, but the Authority shall also seek operational and project funding from external donors.<sup>73</sup> At the first and second ordinary meetings of the Conference of Ministers held in Dar es Salaam, Tanzania in April, 2007 and Bujumbura, Burundi in April, 2008, the Conference of Ministers passed resolutions calling for collective actions to mobilize financial resources and called on international agency partners to provide support to the LTA. The LTA Secretariat prepared and presented the Fundraising Strategy covering the period: 2011 – 2015 to the fourth ordinary meeting of the Conference of Ministers held in Lusaka, Zambia in November, 2010. The Fundraising Strategy was approved.<sup>74</sup>

The Fundraising Strategy proposed several options for resource mobilization. The primary funding mechanisms are to be established through the creation of the Lake Tanganyika Convention Implementation Fund (LTCIF), which is intended to enhance regional and national financial flows for effective support of the implementation of the Convention, and the establishment of a Lake Tanganyika Endowment Fund (LTEF), which would consist of one-off contributions from riparian states that supporting partners are invited to match. Another potential funding mechanism is the creation of a Lake Tanganyika Friends Trust Fund, an opportunity for individuals to support sustainable development of the Lake through membership in a proposed Lake Tanganyika Friends program. The Fundraising Strategy emphasized the immediate need to establish the first two financial mechanisms (the LTCIF and LTEF), with the long term focus of researching other innovative resource mobilization mechanisms.<sup>75</sup>

The GEF has been the primary donor for projects, and its financial support was, and continues to be crucial for the Convention's success. Contracting parties are to fund those activities related to the implementation of the Convention that are undertaken within its territory or for its exclusive benefit. Nevertheless, the activities of the Secretariat, and Management Committee, as well as projects undertaken as part of the strategic action plan will require sustainable financing mechanisms for continued activities.

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<sup>72</sup> *Id.* at Art 22.

<sup>73</sup> The Convention, *supra* note 2, at Art 28.

<sup>74</sup> Personal Communication with Dr. Henry Mwima, Executive Director Lake Tanganyika Authority (March 9 2011) (on file with authors).

<sup>75</sup> *Draft Fundraising Strategy for the Lake Tanganyika Authority*, LAKE TANGANYIKA AUTHORITY (2010) 7-10.

### *Data and information exchange*

The riparian states indicated that effective information and data exchange measures were crucial for the success of the Convention.<sup>76</sup> Article 19 obligates states to make information on water and environmental quality objectives, the results of monitoring compliance, and reports on environmental impact assessments of proposed activities relating to the Lake Tanganyika Convention, freely available to the public,<sup>77</sup> and thus any other state. This is intended to encourage public involvement in decision making processes by creating a right of public access to relevant information.<sup>78</sup> Information 'that is readily available' is formally exchanged via the Secretariat, and Article 20 allows one Contracting State to request information from another regarding the implementation of the Convention and sustainable management of the lake environment.<sup>79</sup>

With respect to information not readily available, the Convention is consistent with many other data and information exchange mechanisms in requesting states to 'make the best efforts' to comply with requests to provide such information. However, it makes no mention of who should bear the costs associated with obtaining this information. As such, it is probable that unless data is readily available, it is unlikely to be exchanged. A confidentiality clause secures personal data, intellectual property, and information related to national security from being exchanged. Reporting on measures taken to implement the Convention are to be done 'periodically'.<sup>80</sup> This reporting is to include information pertaining to the development of law and policy, as well information regarding the state of the Lake basin.

Another element of note is Article 14 obligating states to notify the LTA secretariat of any development which may have adverse impacts on other littoral states, including hydrocarbon development, building roads and rail linkages, handling and discharging of dangerous substances, mining, operation of large dams, amongst others. This, along with Article 15 on environmental impact assessment legislation indicates the expectation of information exchange regarding national policies and socio-economic development.

### *Flexibility of agreement*

Although one of the goals of the Convention is the harmonization of law and standards,<sup>81</sup> it does not set precise environmental standards, but instead allows Contracting States to develop specific standards through a protocol.<sup>82</sup> This allows for greater flexibility, and this approach to environmental standard setting was considered more appropriate to the context of Lake Tanganyika.<sup>83</sup> The dispute resolution mechanism (Article 29), is modelled on the Convention for Biological Diversity, and is intended to provide flexibility in resolving

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<sup>76</sup> *Supra* note 51, at 4.

<sup>77</sup> The Convention, *supra* note 2, at Art 19.

<sup>78</sup> *Supra* note 51, at 6.19.

<sup>79</sup> *Id.* at 19.

<sup>80</sup> The Convention, *supra* note 2, at Art 22.

<sup>81</sup> *Id.* at Art 2, para 2.a.

<sup>82</sup> *Id.* at Art 8, para 3.

<sup>83</sup> *Supra* note 51, at 4.

disputes. The financial mechanism provides some flexibility by establishing basic principles to guide contributions without making specific financial obligations for the Contracting States. This is intended to reduce disputes over funding at the meetings of the Conferences of the Parties.<sup>84</sup>

Amendments to the Convention or any protocols may be proposed by any of the signatory states.<sup>85</sup> States may also withdraw from the Convention any time three years after the date that it entered into force, with written notification to the Depository.<sup>86</sup>

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<sup>84</sup> Id. at 21.

<sup>85</sup> The Convention, *supra* note 2, at Art. 36.1.

<sup>86</sup> Id. at Art 43.

## 4. Implementation and Monitoring

### 4.1. Steps taken by parties to implement the Convention

The Convention entered into force in 2005, following the second deposition of ratification.<sup>87</sup> The Lake Tanganyika Authority was made operational at the first meeting of the Council of Ministers in April 2007, though the DRC had yet to ratify the Convention.<sup>88</sup> This was done by November of that same year.<sup>89</sup> The LTA was launched in December, 2008, but started operations in January 2009.<sup>90</sup>

Initial implementation steps focussed on administration and organisation of the Convention. The first Committee of Ministers established the headquarters for the LTA to be held in Bujumbura, Burundi,<sup>91</sup> and appointed the Executive Director of the LTA Secretariat.<sup>92</sup> However, a number of issues were not settled by the end of the meeting, and remained unresolved by the time of the second meeting of the Conference of Ministers.<sup>93</sup>

The second meeting of the Conference of Ministers noted a number of delays in obtaining the necessary administrative instruments for the operation of the LTA, among them the formal appointment of the Executive Director, rules of procedure, and financial regulations.<sup>94</sup> Partner organizations noted that delays in achieving full operational status of the LTA & National Coordinating Units had placed the LTRIMP in jeopardy.<sup>95</sup> However, the meeting also established details regarding state contributions, and the concluding resolution stressed the importance of urgent action towards the Convention's implementation.<sup>96</sup>

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<sup>87</sup> *Id.* at Art 40; White & Case, *supra* note 3.

<sup>88</sup> The First Meeting of the Lake Tanganyika Conference of Ministers was convened and hosted by the Government of the United Republic of Tanzania in Dar es Salaam on the 5th of April 2007, LAKE TANGANYIKA AUTHORITY at 2, available at <http://lta.iwlearn.org/documents/1st-lt-com-meeting-report-5-april-2007/view>; Dar Es Salaam Declaration, Annex 14.

<sup>89</sup> *Resolution No. 01/08 of the Lake Tanganyika Conference of Ministers on the Status of the Lake Tanganyika Authority Secretariat and the Regional Programme for the Integrated Management of Lake Tanganyika, 1*, available at <http://tazabuco.files.wordpress.com/2009/05/resolution-com2-2008-01-original.doc> (last visited Dec. 12, 2010).

<sup>90</sup> *About the LTA*, LAKE TANGANYIKA AUTHORITY, available at <http://lta.iwlearn.org/about> (last visited Dec. 12, 2010).

<sup>91</sup> *Supra* note 88, at Annex 7.

<sup>92</sup> *Supra* note 88, at Annex 8.

<sup>93</sup> The Second Meeting of the Lake Tanganyika Conference of Ministers was convened in Bujumbura on 24-25 April 2008, in accordance with article 24, section 1 of the Convention for the Sustainable Management of Lake Tanganyika. The Second Meeting was hosted by the Government of the Republic of Burundi, LAKE TANGANYIKA AUTHORITY at 5, available at <http://lta.iwlearn.org/documents/2008-2nd-com-report/view>.

<sup>94</sup> *Id.*; see notes 18-20 (Agenda item 6).

<sup>95</sup> *Id.* at 7.

<sup>96</sup> *Id.* Resolution No. 01/08 of the Lake Tanganyika Conference of Ministers on the Status of the Lake Tanganyika Authority Secretariat and the Regional Programme for the Integrated Management of Lake Tanganyika.



By 2009, the process of implementation appeared to be somewhat slower than originally intended. While all four riparian states had established National Steering Committees, none were able to undertake fact finding missions by the Third CoM Meeting.<sup>97</sup> The LTA Secretariat's ability to fully implement its own workplan was also hampered by a lack of staff<sup>98</sup> and insufficient funding.<sup>99</sup> As a result, while it had finalised staffing arrangements and many draft rules of procedure, as well as beginning to engage with the public and other international partners, it remained in the initial and preparatory phases for other activities.<sup>100</sup>

The activity of the LTA continued to be constrained throughout 2010; by the end of October, only one riparian country was able to remit full national contributions, while two others submitted partial contributions. This posed considerable challenges for the LTA Secretariat, with LTA and NCU staff going without salaries for several months, and many activities constrained due to lack of funds.<sup>101</sup> In spite of these challenges, however, the LTA has organized and held several preliminary and consultation workshops in preparation for updating the SAP and launching new programs.<sup>102</sup>

## 4.2. Operational Management

The Conference of Ministers is the supreme organ of the LTA. Comprised of one minister from each riparian country, it meets once a year to evaluate the Convention's implementation, and may approve any new protocols, annexes, subsidiary bodies or amendments to the Convention.<sup>103</sup> The Management Committee is the second organ of the LTA, whose purpose is to support, coordinate, and monitor the Convention's implementation, including the supervision of the LTA Secretariat.<sup>104</sup> It is supported by four technical sub-committees, addressing socio-economic conditions, water quality and pollution, biological diversity, and fisheries management.<sup>105</sup> The Secretariat is the executive organ of the Convention, responsible for carrying out tasks assigned to it by the Management Committee, the Conference of Ministers, or any other protocol, among others.<sup>106</sup>

The Convention provides the institutional and legal framework for regional cooperation, and establishes the Lake Tanganyika Authority (LTA), as the institutional management structure that coordinates implementation of the Convention. The SAP was developed to

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<sup>97</sup> The third ordinary meeting of the Lake Tanganyika Conference of Ministers was held at Uvira, Democratic Republic of Congo on August 21, 2009, TANGANYIKA AUTHORITY at 3, *available at* <http://lta.iwlearn.org/documents/2009-3rd-lt-com-meeting-report/view>.

<sup>98</sup> *Id.* at 4.

<sup>99</sup> *Id.* at 5.

<sup>100</sup> *Id.*

<sup>101</sup> *Brief Progress Report of the Lake Tanganyika Authority Secretariat*, MC/4/6.2, LAKE TANGANYIKA AUTHORITY, (January – October 2010), 3-4.

<sup>102</sup> *Id.* at 4.

<sup>103</sup> The Convention, *supra* note 2 at Article 24.

<sup>104</sup> The Convention, *supra* note 2 at Art. 25, 26.

<sup>105</sup> *Id.* at Art. 27 ; *supra* note 2.

<sup>106</sup> *Id.* at Art. 26. For more information, please see White & Case Report, Lake Tanganyika, *supra* note 3.

achieve the objectives of the Convention, and was endorsed by the riparian states in July 2009. The SAP outlines priorities for the LTA, among them development of community infrastructure and stakeholder capacity in sustainable fisheries management, improvements in water treatment, reduced water pollution, and the establishment of an integrated regional monitoring system.<sup>107</sup>

In 2008 the Lake Tanganyika Regional Integrated Management Programme (LTRIMP) was created to facilitate the implementation of both the SAP and the Convention.<sup>108</sup> Its objectives are to achieve sustainable management of Lake Tanganyika through the implementation of the SAP, and to improve general wellbeing through infrastructure development. The LTA Secretariat coordinates regional implementation of the LTRIMP, and the LT Management Committee acts as Steering Committee.<sup>109</sup> National Steering Committees ensure coordination at the national level.<sup>110</sup>

### 4.3. Monitoring mechanisms

Monitoring mechanisms within the Convention are largely self-initiated. The Convention obligates states to monitor the SAP's effectiveness and revise it "as necessary."<sup>111</sup> States must also monitor compliance following environmental impact assessments performed for specific projects and activities.<sup>112</sup> States are also obligated to publish the results of monitoring of activities that may affect the environment of the lake basin.<sup>113</sup>

Within the LTA, the Management Committee is responsible for monitoring the Convention's progress, and may commission assessments and studies for this purpose. It is also to supervise the work of the Secretariat.<sup>114</sup> The Secretariat itself also must monitor its own progress, and must also regularly obtain and disseminate information about the Convention's progress.<sup>115</sup> The LTA Secretariat has one full-time staff member dedicated to monitoring and evaluation.<sup>116</sup>

In 2010, the LTA Secretariat issued two Notifications that made reference to Articles 14 and 20, calling upon riparian states to submit information of activities undertaken towards implementing the Convention to the Secretariat.<sup>117</sup>

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<sup>107</sup> *Supra* note 90.

<sup>108</sup> *Id.*

<sup>109</sup> *Lake Tanganyika Regional Integrated Management Programme*, LAKE TANGANYIKA AUTHORITY, available at <http://lta.iwlearn.org/regional-integrated-management-programme> (last visited Dec. 12, 2010).

<sup>110</sup> *Supra* note 93, at 6.

<sup>111</sup> The Convention, *supra* note 2 at Art. 13.

<sup>112</sup> *Id.* at Art. 15.

<sup>113</sup> *Id.* at Art. 4.

<sup>114</sup> *Id.* at Art. 25.

<sup>115</sup> *Id.* at Art. 26.

<sup>116</sup> *Staff Profiles*, LAKE TANGANYIKA AUTHORITY, available at <http://lta.iwlearn.org/about/LTA%20Team> (last visited Dec. 12, 2010).

<sup>117</sup> Personal Communication with Dr. Henry Mwima, Executive Director Lake Tanganyika Authority (March 9 2011) (on file with the author).

## 5. Assessment

### 5.1. Does the Convention accomplish its objectives?

As indicated by one of the international development partners, who expressed the desire for an escalation in implementing the SAP after the 3rd Conference of Ministers Meeting, implementation of the Convention is, at present, incomplete. However, given that the LTA became operational just over three years ago, it is not surprising that it remains in the initial stages of planning and administrative organization.

National Steering Committees have been established by all four member countries, but are in various stages of development.<sup>118</sup> Thus far, their work has included the approval of annual work plans and budgets, as well as reviewing progress and providing policy guidance in project activity implementation.<sup>119</sup>

The LTA has accomplished a variety of organizational achievements, and has facilitated the signing of the LTA Headquarters Agreement, the development of tools and manuals for development projects, and financial arrangements for the contracting states. They have also finalized numerous draft working documents for the operation of the Convention, made progress towards the updating of the SAP and development of an integrated environmental programme.<sup>120</sup> While the LTA's progress on coordinating the implementation of the SAP has been impeded by problems with financial and staffing resources, it has already made an effort to engage with multiple stakeholders. Along with its interactions with member states, the LTA Secretariat has held a press conference to raise public awareness of the LTA and its activities and has begun working with international partners to monitor Lake Tanganyika's water quality.<sup>121</sup> Furthermore, the Secretariat finalised the LTA/FAO Technical Assistance Agreement in September 2010, which is anticipated to coordinate sustainable and responsible fisheries management and the preservation of aquatic ecosystems in Lake Tanganyika over an eighteen month period of time.<sup>122</sup>

### 5.2. Effectiveness of particular provisions

As implementation of the Convention effectively began only three years ago with the launching of the LTA in December 2008,<sup>123</sup> there has been little opportunity to examine the success of particular provisions. At present, financial sustainability appears to be uncertain, with LTA progress slowed by insufficient funding from member countries.<sup>124</sup> It is still too early to assess other areas of the Convention.

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<sup>118</sup> *Supra* note 97, at 3.

<sup>119</sup> Personal Communication with Dr. Henry Mwima, Executive Director Lake Tanganyika Authority (November 12 2010) (on file with the author).

<sup>120</sup> *Id.*

<sup>121</sup> *Supra* note 97, at 5.

<sup>122</sup> *Matters Arising from the Third Meeting, MC/4/5, LAKE TANGANYIKA AUTHORITY, (November 2010) 3.*

<sup>123</sup> *Supra* note 90.

<sup>124</sup> *Supra* note 93, at 5.

## 6. Concluding Remarks

Though collaborative and cooperative international projects to improve the wellbeing of Lake Tanganyika have been in existence since at least the early 1990s, the Convention on the Sustainable Management of Lake Tanganyika marks the intention by all four riparian countries to continue these commitments into the future. It provides a long-term framework for cooperation that can be self-sustaining and last beyond international projects with limited time frames.

However, given that implementation of the Convention remains in early stages, it remains to be seen to what extent the Convention will effectively encourage the conservation and preservation of Lake Tanganyika's biological resources. Much of the work undertaken to implement the Convention has focussed on organization and institution-building thus far, with progress on the SAP somewhat delayed. Progress made by states in implementing the Convention has also been mixed. This may in part be due to inadequate understanding of the GEF and UN regulations in project management and implementation matters, and the amelioration of this situation has required the LTA to dedicate perhaps more time than anticipated to explain regulations to and garner the support of national partners.<sup>125</sup>

The LTA faces significant challenges in project coordination. The Convention encompasses four countries, three regions (central, southern, and eastern Africa), and two different languages and traditions. In addition to the challenges of working with national stakeholders from a variety of different cultural backgrounds and with different working speeds, the organization of the five-module project, which is under multiple organizational structures, intensifies both the importance and difficulty of project coordination.<sup>126</sup> These delays have, at times, threatened the viability of certain projects under the Convention, and threaten the momentum of implementation of the Convention as a whole.

An important challenge for the LTA in implementing the Convention will be to ensure sufficient funding for its operations and for the activities undertaken to implement the Convention and the SAP. As financial contributions from countries, as well as their own progress in implementing the SAP is varied, it is important that the LTA find a way to ensure sufficient funding while promoting ownership among the member states. The 3rd Conference of Ministers initiated discussions around sustainable finance mechanisms which continued at the 4th Conference. There is a possibility of setting up a joint trust fund, into which riparian states are to provide 'seed money.' However, unless a source of income is established, such as a fishing tax or pollution penalties, there is unlikely to be a financial mechanism to be able to generate sufficient funds to finance projects, and future activities may have to rely on foreign assistance on a project by project basis. Clearly, reducing dependency for support from international partners will be crucial to the Convention's long-term success.

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<sup>125</sup> *Supra* note 101, at 5.

<sup>126</sup> *Id.*