

RESOLUTION OF THE AFRICAN GREAT LAKES CONFERENCE: CONSERVATION AND DEVELOPMENT IN A CHANGING CLIMATE (ENTEBBE, UGANDA), 5TH MAY 2017

We the over 300 participants of the African Great Lakes Conference: Conservation and Development in a Changing Climate, organised by The Nature Conservancy in collaboration with the Lake Tanganyika Authority, with support from the MacArthur Foundation, Critical Ecosystem Partnership Fund, and other sponsors, hosted by the Republic of Uganda and attended by regional lake authorities, government leaders and policymakers, development and funding agencies, scientists, community representatives, private sector groups and the media at Imperial Resort Beach Hotel, Entebbe, Uganda from 2nd to 5th May 2017:

- 1) **Are aware** that conservation of ecosystems and biodiversity, and sustainable development are the foundation through which humanity can end poverty and hunger, and promote economic growth;
- 2) **Are conscious** that sustainable development is recognised at the highest level of governance as the means of ending poverty, hunger and promoting economic growth as manifested by various policy statements by Heads of Governments such as that of: "Transforming Our World: The 2030 Agenda for Sustainable Development" of 2016;
- 3) **Are aware** that the seven African Great Lakes (Albert, Edward, Kivu, Malawi/Nyasa/Niassa, Tanganyika, Turkana, and Victoria) and their basins are among the most critical economic growth zones in Africa, rich in ecosystem services and development opportunities such as domestic, urban and industrial water use, irrigation and rain-fed agriculture, fishing, aquaculture, water transport, industrial development, hydropower generation, recreation, mining, oil and gas exploitation, tourism, and climate modulation; the lakes and their basins house endemic biodiversity of global significance; and have religious, cultural and aesthetic values that are critical to livelihoods of the people of the region;
- 4) **Are concerned** that biodiversity and ecosystem services of the lakes and their basins are facing numerous threats including: unsustainable and illegal fishing, invasive species, habitat and environmental degradation, sedimentation, increased turbidity, nutrient and industrial pollution, eutrophication, poor governance, with many of these exacerbated by very rapid increases in human population growth rates;
- 5) **Acknowledge** that climate change has intensified and is expected to magnify many of the threats severely affecting water security and natural resources which are the basis for livelihoods in most communities in the African Great Lakes region where people require healthy ecosystems to sustain their livelihoods;
- 6) **Are aware** that all the seven African Great Lake basins are connected both by geographic proximity and common challenges that can either act as sources of cooperation or sources of conflict, and should be a basis for regional integration;
- 7) **Are aware** that the issues and challenges facing the African Great Lakes and their basins can be addressed more effectively and economically by basin stakeholders, practitioners, scientists, managers and policy makers working together;

- 8) **Note** that financial and human resources are limited and collective handling of issues affecting the lakes and their basins through trans-boundary cooperation can promote regional economic growth and attract investment by sustainable development agencies;
- 9) **Recognize** the need for timely information, robust data and continual monitoring, to guide policy for conservation and management of the resources of the African Great Lakes region;
- 10) **Acknowledge** the need to develop mechanisms for mobilizing resources for collective management of the lakes and their basins; and
- 11) **Are determined** to contribute to the goals of the 2030 Agenda for Sustainable Development by addressing the issues facing the African Great Lakes and their basins for the benefit of the present and future generations.
- 12) **The participants agreed that the key issues that need to be addressed include the following:**
 - a) The values of the African Great Lakes ecosystem services not having been adequately identified and evaluated, making it difficult to justify the benefits of their conservation and development;
 - b) Inadequate documentation of the distribution of endemic biodiversity;
 - c) Infestation of the lakes and rivers by invasive aquatic plants such as water hyacinth (*Eichornia crassipes*) and the Kariba weed (*Salvinia molesta*);
 - d) Collapse in stock of most commercially desirable fish species due to intense fishing pressure, illegal, fishing, environmental degradation and limited application of an ecosystem approach to fisheries;
 - e) Increase in utilization of small pelagic fish species that are highly nutritious and relatively inexpensive source of protein, employment and income especially among women but have limited information to guide their development and management;
 - f) Increase in caged aquaculture within lakes which has potential to contribute to the increasing demand for fish, due to declining capture fisheries and the rapidly increasing human population, but has socio-economic and environmental challenges that require policy and guidance;
 - g) Warming of lake waters due to human induced climate change which is affecting the characteristics and productivity of aquatic ecosystems and shifting the diversity of organisms to those that can adapt to or tolerate the changed conditions;
 - h) Changes in hydrologic cycle, climate variability, rainfall patterns and extreme weather events such as droughts and floods which affect human health and food production and can lead to famine and changes in lake and river levels that impact aquatic ecosystem function, water quality and quantity, as well as socioeconomic and social-ecological systems that depend on regimes of the water systems;
 - i) Changes in land use which often accelerate loading of nutrients and contaminants into aquatic systems via lake tributaries and atmospheric deposition;
 - j) The rapid human population growth rates, primarily driven by high birth rates due to unmet family planning needs, and high illiteracy levels which contribute to poor maternal and child health and diminish local capacity to manage natural resources effectively;
 - k) The high prevalence of malaria, bilharzia, cholera and other water-related diseases as well as HIV/AIDS which affects the health of communities, labor, capacity building, productivity and resource utilization;
 - l) Inadequate improved water treatment and sanitation facilities among most rural communities, and limited investment in ecological and environmentally-friendly infrastructure to support supply of clean and healthy water and sanitation;

- m) Unequal access, decision-making power, control, and equity in fisheries roles of fisherfolk, especially for women in fisheries development and management;
- n) Increased construction of hydropower dams which, although providing power for development, are threatening lake and river ecosystems jeopardizing biodiversity and endemic species as well as fish production and environmental services to rural communities;
- o) Discovery of oil and methane in some lakes and their basins which, if not well managed during siting and exploitation, can pose a threat to the environment, human health and biodiversity;
- p) Inadequate good governance and mechanisms to collectively address issues affecting the seven African Great Lakes and their basins, despite many of the issues being common to all or several of them;
- q) Inadequate funding to implement solutions within and across lake basins and insufficient acknowledgment that addressing them collectively would reduce transaction costs;
- r) Existence of considerable information and solutions for addressing the issues affecting the African Great Lakes and their basins but no single place to deposit and openly access information for management and conservation efforts in individual basins and across the basins;
- s) Many of the national and regional institutions are weak and need strengthening; and
- t) Lack of effective and participatory mechanisms for integrating local communities, civil society organizations, and the private sector in conservation and management of natural resources.

13) The participants agreed that the solutions for addressing the issues include the following:

- a) Identify and quantify the values of ecosystem services at basin and/or lake-wide scale to justify the need for their conservation and sustainable development;
- b) Map the distribution of aquatic species, including their endemism and diversity, and determine and address the causes of decline in populations and species;
- c) Determine the occurrence, dynamics and causes of proliferation of major aquatic invasive organisms and put in place mitigation and control measures;
- d) Undertake lake-wide assessments for key fish stocks, determine appropriate fishing capacity and exploitation patterns, control overcapacity, promote an ecosystems approach to fisheries development and management, and where necessary revise fisheries policy;
- e) Generate information on the causes of the apparent increases and persistence in stocks of small pelagic species and develop specific management plans, including their value to nutrition and income of poor communities especially women;
- f) Develop best practices and support implementation of policy for caged aquaculture, and promote use of those practices through coordinated adaptive research, planning, licensing, and compliance
- g) Use the best available science on climate change dynamics and impacts, especially how climate change interacts with other stressors, and put in place adaptation and mitigation measures to increase resilience by communities;
- h) Restore forest and wetland cover, regulate water withdrawal to protect environmental flows, and boost hydro-meteorological and environmental monitoring networks to provide data for early warning on climate and non-climate related hazards;
- i) Establish in each lake basin a network of freshwater and terrestrial protected areas sufficient in size, governance, and design to ensure conservation of the rich heritage of aquatic species and to serve as sources of replenishment;
- j) Promote sustainable agricultural practices that benefit soil fertility and minimize atmospheric and riverine nutrient loading to conserve water quality;

- k) Advocate for environmental, developmental and health policies that recognize population pressure and family planning, reproductive, maternal and child health services as key to addressing population growth and adaptation to climate change impacts;
- l) Promote multi-sectoral community-based development tools such as 'Population, Health, and Environment';
- m) Mainstream HIV/AIDS and water related diseases such as bilharzia, malaria and cholera prevention, treatment, and vaccination in provision of health services with special emphasis on fisherfolk;
- n) Increase women's participation and leadership roles in fisheries management and promote human and fishing rights for women fishers and promote education of girls to enable them to play a meaningful role in basin development and governance;
- o) Create public-private partnerships and water stewardship approaches to bring investment in ecological infrastructure to protect water sources for communities and support downstream water quality;
- p) Assess socioeconomic and environmental trade-offs associated with hydropower dam siting, ensure adequate mitigation measures, and evaluate and promote other renewable power options such as wind and solar to meet energy demands;
- q) Determine potential impacts of oil and methane exploration and exploitation by conducting scientific, evidence-based Environmental and Social Impact Assessments at the site prior to extraction, by monitoring impacts during and after the end of operations, and putting in place appropriate mitigation measures through trans-boundary cooperative efforts to enhance preparedness to oil spill response;
- r) Develop regional policies and management strategies consistent with stakeholder countries, as well as national priorities and objectives, that support collaborative, multi-national actions to ensure sustainability of resources of the African Great Lakes and their basins for each trans-boundary lake basin;
- s) Enhance good governance based on international best practices by promoting sustainable financing, effective decision making, enhanced regulatory compliance and adaptive management;
- t) Establish a 'Network of African Great Lakes Basin Stakeholders' to coordinate action and exchange on priority issues defined by the African Great Lakes Conference and subsequent gatherings supported by the experience of the African Network of Basin Organizations and the International Network of Basin Organizations, as it develops its structure and functions;
- u) Utilize the African Great Lakes Conservation Fund announced at the African Great Lakes Conference to begin addressing common priority issues and mobilize additional funds for that purpose;
- v) Contribute information on projects, issues and solutions to the newly created African Great Lakes Information Platform to create a common and robust internet-based tool that provides access to information for conservation and sustainable development of the African Great Lakes and their basins;
- w) Support publication of findings from the African Great Lakes Conference in at least three international scientific journals for the benefit of the global community;
- x) Meet again as a 'Network of African Great Lakes Basin Stakeholders' in a similar conference within the next five years to report upon the status, trends and values of major ecosystem services and review promising interventions, new science, and priority issues of relevance to the seven lake basins; and
- y) Ensure that future generations of scientists, managers, politicians, and stakeholders have the capacity, knowledge, and ability to address current and future issues of the African Great Lakes.