ADAPTATION FUND

REGIONAL PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Adapting to Climate Change in Lake Victoria Basin
Countries:	Burundi, Kenya, Rwanda, Tanzania and Uganda
Thematic Focal Area[1]:	Transboundary water management
Type of Implementing Entity:	MIE
Implementing Entity:	United Nations Environment Programme (UNEP)
Executing Entities:	Lake Victoria Basin Commission (LVBC)
Amount of Financing Requested:	US$5,000,000

Table of contents

[1] Thematic areas are: i) food security; ii) disaster risk reduction and early warning systems; iii) transboundary water management; and iv) innovation in adaptation finance.

List of abbreviations and acronyms

AAKNet	Africa Adaptation Knowledge Network
AF	Adaptation Fund
CCTWG	Climate Change Technical Working Group
CTA	Chief Technical Advisor
DHI	Danish Hydraulic Institute
EAC	East African Community
EACDS	East African Community Development Strategy
EbA	Ecosystem-based Adaptation
ESMP	Environmental and Social Policy Management Plan
ESP	Environmental and Social Policy of the Adaptation Fund
EWS	Early warning systems
FEWSNET	Famine Early Warning System Network
GAN	Global Adaptation Network
ICPAC	IGAD Climate Prediction and Applications Centre
INDC	Intended Nationally Determined Contributions
LVB	Lake Victoria Basin
LVBC	Lake Victoria Basin Commission
LVDP	Lake Victoria Development Programme
LVEMP II	Lake Victoria Environmental Management Programme Phase II
LVWATSAN	Lake Victoria Region Water and Sanitation Initiative II
M&E	Monitoring and evaluation
MIE	Multilateral Implementing Entity
NAPA	National Adaptation Programmes of Action
NBI	Nile Basin Cooperative Framework
NCCAP	National Climate Change Action Plan
NDA	National Designated Authority
NGO	Non-governmental organisation
NIE	National Implementing Entity
NRB	Nile River Basin
PCU	Project Coordination Unit
PIR	Project Implementation Review
PM	Project Manager
PPR	Annual Project Progress Review
PREPARED	Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development
RCMRD	Regional Centre for Mapping of Resources for Development
RPSC	Regional Policy Steering Committee
SAP	Strategic Actions Plan
SC	Sectoral Council
SDG	Sustainable Development Goals
ToR	Terms of Reference

Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective. Outline the economic social, development and environmental context in which the project would operate in those countries.

Project overview, background and context

Climate change in the Lake Victoria Basin (LVB) – a water catchment that occurs in Burundi, Kenya, Rwanda, Tanzania and Uganda – has resulted in increased mean annual temperatures and increased variability in rainfall patterns. Climate change projections predict that mean annual temperatures will continue to increase and that variability in rainfall patterns will be exacerbated. Projected climate change will result in a number of negative effects within the LVB, including a decrease in water quality and availability[2] for a number of uses, including *inter alia:* i) domestic; ii) agricultural; iii) industrial and commercial; and iv) cultural. The negative effects of climate change disproportionately affect marginalised and rural communities within the LVB by reducing the productivity of agriculture and wetlands and the abundance of fish in Lake Victoria and its tributaries. In addition, the projected effects of climate change are likely to negatively impact economic sectors within the LVB that depend on water resources, such as hydropower facilities and commercial fisheries. Therefore, to reduce the impact of climate change on local communities and water-dependent economic sectors within the LVB, the project will increase climate resilience in the LVB at both a regional and local level. The project objective will be achieved through five outcomes, namely: i) strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management; ii) Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities; iii) climate change adaptation technologies, including water harvesting techniques, climate-smart agriculture and Ecosystem-based Adaptation (EbA), transferred to communities to reduce their vulnerability to climate change; iv) regional resilience to climate change promoted through innovative, community-based projects; and v) improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.

Geographical context

The LVB is contained within the southern section of the Nile River Basin (NRB), between the Eastern and Western Rift Valleys. The LVB catchment area is ~195,000 km^2 and contains Lake Victoria, the world's second largest freshwater lake, which has a surface area of ~69,000 km^2, a mean depth of ~40 m and contains ~2,750 km^3 of water[3]. Lake Victoria extends into three countries, namely Kenya, Tanzania and Uganda, while the LVB extends further to include Burundi and Rwanda (Figure 1).

[2] Collaborative research between the Lake Victoria Basin Commission (LVBC) and the USAID EA-funded PREPARED project – i.e. Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development (PEPARED) – found that climate change is affecting both aquatic and terrestrial water resources within the LVB.

[3] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.

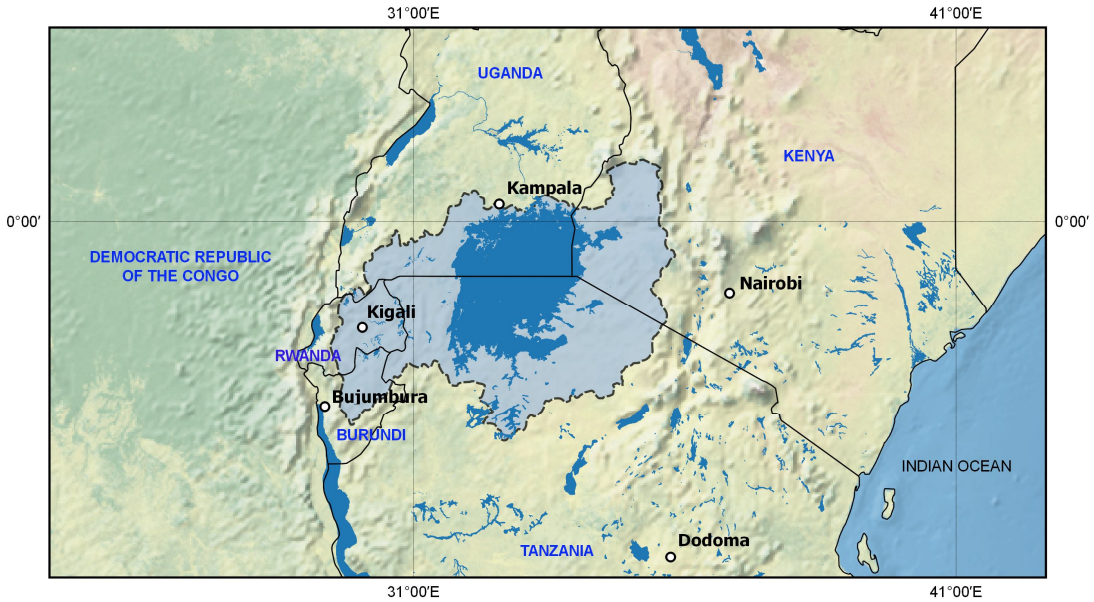

Figure 1. Map of the Lake Victoria Basin (light blue with dashed outline), which contains Lake Victoria (dark blue) and overlaps with Burundi, Kenya, Rwanda, Tanzania and Uganda. The capital city of each LVB country is indicated with a white circle.

Approximately 20% of Lake Victoria's water inflow is contributed by rivers in 17 sub-basin catchments, with the remaining ~80% of water inflow being provided by rainfall. The two largest sub-basins in the LVB – Kagera and Nzoia – provide ~48% of total water inflow from sub-basin catchments[4]. A number of smaller tributaries – from Uganda in particular – enter the lake through swamps or wetlands. The combined area of swamps and wetlands in the LVB is ~2,600 km^2[2,5]. Large rivers within the LVB include *inter alia*: i) Bukora and Katonga (originating in Uganda); ii) Nzoia, Sio, Mara, Yala, Awach, Gucha, Migori and Sondu (originating in Kenya); and iii) Mori, Simiyu, Grumeti, Mbalageti and Magogo-Moame (originating in Tanzania).

The LVB contains three broad ecoregions, namely the: i) Victorian Basin Forest-Savanna Mosaic in the north and west; ii) Southern Acacia Commiphora bushlands and thickets in the east and southeast; and iii) Central Zambezian Miombo Woodlands in the southwest[6]. There is considerable variation in rainfall volumes in the LVB, from approximately 1,200 mm/year in the north to 2,000 mm/year in the southwest to 3,000 mm/year in the Rwenzori Mountains in the west[7].

[4] Of the total water inflow to Lake Victoria from sub-basin catchments, Nzoia provides ~33% and Kagera provides ~15%: Brown, E. & Sutcliffe, J.V. 2013. The water balance of Lake Kyoga, Uganda. Hydrological Sciences 58: 342–353.
[5] Brown, S., Brinson, M.M. & Lugo, A.E. 1979. Structure and function of riparian wetlands. *General technical report, WO-US Department of Agriculture, Forest Service*.
[6] Saundry, P. & Fund, W. 2012. Lake Victoria. The Encyclopaedia of Earth. Available at: http://www.eoearth.org/view/article/154134/.
[7] Abtew, W. & Melesse, A.M. 2014. The Nile River Basin. In: A.M. Melesse et al. (eds.), The Nile River Basin. Springer, Basel.

Table 1. Size and percentage values of the LVB countries' overlap with Lake Victoria's surface area, Lake Victoria's shoreline and the Lake Victoria Basin's surface area[8,9].

Country	Lake Victoria surface area		Lave Victoria shoreline		Lake Victoria Basin surface area	
	km^2	%	km	%	km^2	%
Burundi	0	0	0	0	13,060	7
Kenya	4,113	6	550	17	38,910	22
Rwanda	0	0	0	0	20,550	11
Tanzania	33,756	49	1,150	33	79,570	44
Uganda	31,001	45	1,750	50	28,850	16
Total	**68,870**		**3,450**		**180,940**	

Socioeconomic context

The combined population of the LVB is ~30 million people, with an average population density of ~165 people/km^2 and a maximum population density of ~1,200 people/km^2 (in Kenya)[10]. The population is growing at ~3% annually[11], with an average life expectancy of ~45 for men and ~48 for women[12]. Livelihood activities undertaken in the LVB, include *inter alia*: i) fishing[13]; ii) farming; iii) bee-keeping; iii) trading; and iv) mining[14,15]. Agriculture in the LVB is comprised of both small-scale and commercial farming and includes both subsistence[16] and cash crops[17].

Livelihoods in the LVB are largely underpinned by natural resources. For example, between 1988 and 2002, the sudden increase in the Nile perch population correlated to localised increases of the human population by as much as 150% in Mwanza and Shinyanga (Tanzania)[18]. At national levels, the exploitation of the LVB's natural resources contributes a considerable proportion of national GDPs. In Kenya, for example, ~22% of GDP is attributed to the economic activities supported by natural resources[19]. Regionally, the fisheries sector[20] supports the livelihoods of ~3 million people[21], with annual catch yields of ~500,000–

[8] Shepherd, K., Walsh, M., Mugo, F., Ong, C., Hansen, T.S., Swallow, B., Awiti, A., Hai, M., Nyantika, D., Ombao, D., Grunder, M., Mbote, F. & Mungai, D., 2000. Improved land management in the Lake Victoria Basin: linking land and lake, research and extension, catchment and lake basin. International Centre for Research in Agroforestry, Nairobi.
[9] "Lake Victoria existing adaptation initiatives and linkages to this proposed project" presentation by Fredrick Mhina Mngube, July 2016.
[10] Oekstra, D. & Corbett, J. 1995. Sustainable agricultural growth for highlands of East and Central Africa: prospects to 2020. Paper presented at: The Ecoregions of the Developing World: a Lens for Assessing Food, Agriculture and the Environment to the Year 2020.
[11] Awange, J. & Ong'ang'a, O. 2006. Lake Victoria: Ecology, Resources, Environment. Springer, Berlin.
[12] Lake Victoria Basin Commission. 2007. Regional transboundary diagnostic analysis of the Lake Victoria Basin. East African Community, Kisumu.
[13] Fishing is the primary livelihood activity ~3 million people within the LVB.
[14] Mining activities predominantly target sand and gold, although a number of other minerals are mined across the LVB.
[15] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.
[16] For example, maize, bananas, cassava, sorghum, millet, rice and sweet potatoes.
[17] For example, coffee, cotton and sugar cane.
[18] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.
[19] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.
[20] This includes both commercial fishing, artisanal fishing and fish processing.
[21] Njiru, M., Sitoki, L., Nyamweya, C., Jembe, T., Aura, C., Waithaka, E. & Masese, F. 2012. Habitat degradation in Lake Victoria fisheries. Advances in Environmental Research: 27, 1–34.

750,000 tonnes – an equivalent of ~US$300–400 million, of which ~US$250 million represents export values[22,23].

Lake Victoria facilitates regional transportation with major transport routes connecting the towns of Musoma, Mwanza, Bukoba (Tanzania), Port Bell, Jinja (Uganda) and Kisumu (Kenya)[24]. In addition, Lake Victoria is the primary water source used to generate electricity through hydropower stations in the LVB. All five LVB countries rely on hydropower for a percentage of their total electricity consumption, specifically: i) ~95% in Burundi; ii) ~50% in Kenya; iii) ~5% in Rwanda; iv) ~50% in Tanzania; and v) ~20% in Rwanda[25]. Although growth in the hydropower sector in the LVB has been promising, recent declines in water volume in Lake Victoria, coupled with environmental concerns – such as the negative effect of hydropower dams on papyrus wetlands[26] – have resulted in re-evaluations of the regional potential of hydropower in the LVB[27].

Environmental context

The LVB has a considerable diversity of natural resources, including fertile soils, forests, minerals, fish, wildlife and an extensive network of rivers and wetlands[28]. Selected features of natural resources within the LVB include the following.

- The soils within the LVB are generally fertile and include *inter alia*: i) Ferrasols; ii) Vertisols; iii) Acrisols; iv) Nitosols; and v) Cambisols[29].
- Forests in the LVB provide a range of goods and services, including timber for furniture and building and habitat for a variety of flora and fauna, including elephant (*Loxodonta africana*) and 60 species of frog[30].
- Wetlands produce goods, such as: i) raw material for handicrafts and fuel; ii) support for fisheries, grazing, agriculture and outdoor recreation; and iii) habitat for wildlife[31]. In addition, wetlands within the LVB provide ecosystem services, including buffering the negative effects of excess nutrient loads and sedimentation by absorbing nutrients such as nitrogen and phosphorous.
- LVB has rich mineral deposits including *inter alia* gold and diamonds.

As a result of unsustainable use of natural resources, a number of negative environmental effects have resulted. Specifically:

- Agricultural practices such as clear-cutting of vegetation has resulted in **soil erosion**. As topsoil erodes, rainfall carries it into tributaries and Lake Victoria itself, increasing the

[22] Uganda Coalition for Sustainable Development. 2007. Voicing out Lake Victoria concerns to the CHOGM and CPF. Uganda Coalition for Sustainable Development, Kampala.
[23] East African Community. 2006. Special report on the declining of water levels in Lake Victoria. East African Community, Arusha.
[24] East African Community. 2006. Special report on the declining of water levels in Lake Victoria. East African Community, Arusha.
[25] The World Bank. Energy and mining data. Available at: http://data.worldbank.org/topic/energy-and-mining.
[26] Kiwango, Y.A. & Wolanski, E. 2008. Papyrus wetlands, nutrients balance, fisheries collapse, food security and Lake Victoria level decline in 2000–2006. Wetlands Ecology and Management: 16, 89–96.
[27] Lubovich, K. 2009. Cooperation and competition: managing transboundary water resources in the Lake Victoria Region, Working Paper No. 5. USAID, Washington D.C.
[28] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.
[29] Kulinda, K.A.A. 2006. Social and policy framework: context of people and livelihood. UNEP, Nairobi.
[30] UNEP. 2006. Lake Victoria Basin environment outlook: environment and development. UNEP, Nairobi.
[31] Kulinda, K.A.A. 2006. Social and policy framework: context of people and livelihood. UNEP, Nairobi.

concentration of nutrients in the water[32], nitrogen in particular[33]. As a result of this nutrient runoff into Lake Victoria, the concentration of algae in 2006 was ~400% greater compared to the 1960s[34]. The negative consequences of this algal growth are anoxic water conditions and increased fish mortality.

- Widespread and ongoing **deforestation** has reduced the coverage of forests and the availability of associated goods – such as timber – and services – such as preventing soil erosion and providing habitat for wildlife species – within the LVB[35]. Deforestation is undertaken largely to provide woodfuel and timber. For example, in Lupeta (Tanzania) 97% of households use woodfuel for cooking and 53% of households use woodfuel exclusively for cooking[36].
- Across the LVB, **wetlands have been severely degraded**[37] as a result of *inter alia:* i) intensive cultivation of crops such as sugar cane, sweet potatoes and yams in shallow wetlands[38]; ii) excavation of sand and clay for brickworks; iii) the invasion of water hyacinth; and iv) the disposal of waste and wastewater.
- **Mining and mineral extraction** has resulted in a considerable number of negative environmental effects, including *inter alia*: i) large-scale deforestation to provide mining infrastructure; ii) soil degradation as top soil is covered by gravel and sub-soils during mining operations; and iii) contamination of ground and surface water with heavy metals, such as mercury[39].
- **Fish abundance in the LVB has declined** as a result of: i) intensive fishing efforts; ii) changes in Lake Victoria's hydrology[40]; iii) anthropogenic pollution; and iv) the invasion of exotic species[41]. Indeed, commercial fishing efforts are showing decreased catch yields, despite intensified fishing efforts – indicated by an increased number of fisherpeople, boats, nets and hooks – and improved fisheries' management[42].
- **Water quality** in the LVB has been reduced by the eutrophication associated with the persistent and widespread occurrence of the water hyacinth (*Eichhornia crassipes*)[43]. In addition, the water hyacinth obstructs water transport, decreases oxygen content in the water of the LVB, impairs fishing efforts and reduces fish density. The collective economic losses caused by water hyacinth in the LVB were estimated at ~US$6–10 million in 2000[44]. In addition, water quality is reduced as a result of anthropogenic pollution, both in urban

[32] Machiwa, P.K. 2002. Water quality management and sustainability: The experience of Lake Victoria Environmental Management Project: paper presented at the WaterNet/WAFRSA Symposium, Dar es Salaam.
[33] Kiwango, Y.A. & Wolanski, E. 2008. Papyrus wetlands, nutrients balance, fisheries collapse, food security, and Lake Victoria level decline in 2000–2006. Wetlands Ecology Management, 16: 89–96.
[34] The Global International Waters Assessment. 2006. East African Rift Valley lakes. GIWA Regional Assessment, 47.
[35] Kulinda, K.A.A. 2006. Social and policy framework: context of people and livelihood. UNEP, Nairobi.
[36] Preston, K.M. 2012. Fuelwood collection and consumption: a case study in Lupeta, Tanzania. MSc Thesis, Michigan Technological University.
[37] In Uganda, it is estimated that ~75% of wetlands have been affected by anthropogenic activities and that ~15% of wetlands are severely degraded, see: Kayombo, S. & Jorgensen, S.E. 2006. Lake Victoria: experience and lessons learned brief. International Lake Environment Committee, Kusatsu.
[38] Kayombo, S. & Jorgensen, S.E. 2006. Lake Victoria: experience and lessons learned brief. International Lake Environment Committee, Kusatsu.
[39] Kulinda, K.A.A. 2006. Social and policy framework: context of people and livelihood. UNEP, Nairobi.
[40] As a result of both reduced water volumes and the invasion of the water hyacinth.
[41] Lake Victoria Fisheries Organisation. 2008. State of fish stocks. LVFO, Jinja.
[42] Lake Victoria Fisheries Organisation. 2008. State of fish stocks. LVFO, Jinja.
[43] Eutrophication occurs in lakes and other slow-moving water bodies when excess nutrient loads, especially from nitrogen and phosphorus, stimulate excessive plant growth. As the plants bloom and then eventually die, the decomposing material reduces dissolved oxygen in the water creating anoxic zones that can be fatal to other lake organisms.
[44] The World Bank. 2000. The inspection panel investigation report. Kenya: Lake Victoria Environmental Management Project and The World Bank, Washington D.C.

centres (through the discharge of untreated industrial effluent) and in rural areas (through agricultural activities and human and animal waste[45]).

In addition to reduced water quality, **water abundance** has decreased in the LVB as a result of both anthropogenic and climate-related factors. Specifically, both increasing mean annual temperature – which increases the rate of evapotranspiration over the lake's large surface area – and decreased rainfall volumes have been identified as the primary climate-related factors contributing to reduced water abundance in the LVB[46].

Non-climatic factors

Communities within the LVB face a number of challenges unrelated to climate change. As discussed above, environmental challenges within the LVB include *inter alia:* i) soil erosion; ii) deforestation; iii) wetland degradation; iv) poor water quality; and v) limited water availability. These environmental challenges will have a number of negative impacts on local communities. In particular, as a result of the widespread dependence of farming and fishing livelihoods within the LVB on ecosystem goods and services, the negative environmental effects listed above are expected to increase: i) pressure on subsistence livelihoods and commercial activities; and ii) the risk of food insecurity.

Overall, these threats represent a barrier to achieving sustainable development in the LVB[47]. Priority non-climatic environmental threats can be separated by country.

- Burundi: deforestation, soil erosion, degradation of river banks, mining and wildlife hunting.
- Kenya: deforestation, soil erosion, water pollution, sedimentation, eutrophication, increase in water hyacinth and loss of wetlands.
- Rwanda: deforestation, soil erosion, degradation of river banks, wildlife hunting, overgrazing and desertification.
- Tanzania: deforestation, soil degradation, water pollution, declining water levels, desertification, poaching and shortage of potable water.
- Uganda: deforestation, water pollution, draining of wetlands, encroachment of shorelines and declining water level.

Non-climatic threats can largely be divided into three ecosystem categories: i) wetland; ii) aquatic; and iii) terrestrial.[48]

Threats to wetlands in the LVB are most often as a result of pressure to the shoreline and river bank. Such pressures include *inter alia*: i) road construction; ii) waste dumping; and iii) draining for agriculture. Increasing the destruction of wetland ecosystems can result in increasing vulnerability of local communities to flood hazards. Economic losses associated with flood damage are significant when taking into account destruction of property, importing relief foods and the loss of human life. Furthermore, the loss of vegetation cover leads to poor soil infiltration and has the result of local communities having to travel far distances for access to potable water.

[45] The Agreed Curve states that Uganda may release an amount of water equal to the natural discharge of the lake to the White Nile, which should maintain the natural hydrological balance of the lake system. For further information, see: Kiwango, Y.A. & Wolanski, E. 2008. Papyrus wetlands, nutrients balance, fisheries collapse, food security, and Lake Victoria level decline in 2000–2006. Wetlands Ecology Management, 16: 89–96.
[46] Awange, J.L., Ogalo, L. Bae, K-H., Were, P., Omondi, P., Omute, P. & Omullo, M. 2008. Falling Lake Victoria water levels: Is climate a contributing factor? Climatic Change 89: 281–297.
[47] Lake Victoria Basin Commission Strategic Action Plan 2007.
[48] Lake Victoria Basin Commission Strategic Action Plan 2007.

Threats to aquatic ecosystems have already been addressed, namely the introduction of the Nile perch and the resultant decrease in fish species biodiversity in Lake Victoria. This has affected the communities situated along the lakeshore, which relied on the native fish species for subsistence.

Terrestrial ecosystem threats are primarily within the forest and the overharvesting of indigenous tree species. Moreover, the increasing encroachment of plantations and settlements have resulted in the LVB catchment being dominated by exotic tree species. This loss in forest cover has been experienced across all five LVB countries. The long-term consequences of increased exotic species in the forest include: i) local herbalists – who serve the majority of the communities – can no longer depend on the indigenous tree species; ii) loss of indigenous knowledge that is critical to maintaining sustainable management of forest ecosystems.

In addition to environmental challenges, communities within the LVB experience a number of challenges to their health[49]. For example, the occurrence of HIV/AIDS is greater in the LVB than in neighbouring regions[50], which is attributed to frequent localised migrations within fisher communities. A combination of inadequate toilet facilities within LVB communities and pollution of water resources by agricultural chemicals causes water-related illnesses, such as dysentery and diarrhoea[51]. Despite the health risks to communities within the LVB, medical treatment facilities often experience shortages of both supplies and skilled staff, thereby exacerbating these health risks.

Climate change context

Past and current climate change

Over the last four decades, considerable climatic changes have occurred in the **LVB**. For example, the volume of summer monsoon rainfall declined across much of East Africa[52]. Reduced summer monsoon rainfall volume has corresponded with a decrease in mean annual rainfall[53], an increase in annual temperatures and an increase in the frequency of natural disasters such as floods and droughts[54]. A comparison of temperature data from 1950–2000 with temperature data from 2001–2005 shows that maximum temperatures have increased by an average of 1°C[55]. Country-specific climate changes are detailed below.

[49] Karanja, D.M.S. 2006. Health, diseases, and nutrition in the Lake Victoria Basin. LVEMP Project Report.
[50] Pathfinder International. 2013. Health of people and the environment, Lake Victoria Basin Project: Baseline Study Synthesis Report. Pathfinder International, Watertown.
[51] Muyodi, F.J., Hecky, R.E., Kitamirike, J.M. & Odong, R. 2009. Trends in health risks from water-related diseases and cyanotoxins in Ugandan portion of Lake Victoria Basin. Lakes and Reservoirs Research & Management, 14: 247–257.
[52] IPCC. 2014. Climate change 2014: synthesis report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva.
[53] Donald Anthony Mwiturubani. Monograph 170: Chapter 4. *Climate change and access to water resources in the Lake Victoria Basin.* Available at: http://mercury.ethz.ch/serviceengine/Files/ISN/117761/ichaptersection_singledocument/ee7c3713-e87b-44e8-8d98-6b9492dc1ce1/en/Pages+from+Mono170-5.pdf.
[54] Gotenberg University, School of Economics and Commercial Law. 2007. Environmental Policy brief for the Lake Victoria Basin. Gotenberg University, Gotenberg. Available at: http://www.vub.ac.be/klimostoolkit/sites/default/files/documents/env_policy_brief_lake_victoria.pdf.
[55] ICPAC, Kenya & SEI, United Kingdom. 2009. Economics of climate change: Kenya, Rwanda and Burundi. DFID, London.

In **Burundi**, the mean annual temperature has increased between 0.7 and 0.9°C since 1930. There has been on overall decrease in annual precipitation, with the long wet season ending sooner and the short wet season starting later. However, within this overall decrease in rainfall volume, there is notable variation. For example, rainfall volume in the rainy season (October–May) has increased since 1951 at a rate of 3.3 mm per month, per decade[56] and observations from 1999–2006 show a shortening of the rainy season coupled with an extension of the dry season in north-eastern Burundi[57].

Since the 1960s, the mean annual temperature in **Kenya** has increased by 1°C, at an average rate of 0.21°C per decade – an increase that has been most rapid in March–May (0.29°C per decade) and slowest in June-September (0.19°C per decade)[58]. Although variability in rainfall patterns have been recorded across Kenya, overall trends indicate a neutral or decreasing trend, which reflects the recorded decline in rainfall volume during the long rainy season[59].

Although climate data for **Rwanda** are scarce, some trends have been recorded, for example: i) between 1971 and 2009, the mean annual temperature increased by 1.2°C; ii) mean annual rainfall volumes decreased by 80 mm between and 1961 and 2006; and iii) the length of the rainy seasons (March–May and September–November) decreased[60].

Similar to Kenya and Rwanda, the mean annual temperature in **Tanzania** has increased by ~1°C since 1960, with the largest increases occurring in January and February. While mean annual rainfall in Tanzania has decreased since 1960 by 2.8 mm per month per decade, variation in rainfall patterns has increased, for example a significant increase of 11 mm per decade in the volume of rainfall events of 5 days or less (March–May) [61].

Mean annual temperatures in **Uganda**, between 1951 and 1980, have increased by 0.5–1.2°C for minimum temperatures and 0.6–0.9°C for maximum temperatures. There has been considerable variation in rainfall patterns in Uganda, particularly in the last two decades, for example: i) the onset and cessation of rainfall seasons have become more erratic; ii) rainfall events have produced greater volumes; and iii) the frequency of drought events has increased[62]. Despite this increase in rainfall variation, there has been no significant change in average annual rainfall over the last 60 years[63].

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[56] Burundi dashboard. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=BDI&ThisTab=ClimateBaseline.

[57] ICPAC, Kenya & SEI, United Kingdom. 2009. Economics of climate change: Kenya, Rwanda and Burundi. DFID, London.

[58] Kenya dashboard. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=KEN&ThisTab=ClimateBaseline.

[59] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security. Available at: http://www.ugandacoalition.or.ug/sites/default/files/Lake%20Victoria%20CC%20Readness%20brief%20No.%203%20English_0.pdf.

[60] Rwanda dashboard. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=RWA&ThisTab=ClimateBaseline.

[61] Tanzania dashboard. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=TZA&ThisTab=ClimateBaseline

[62] Uganda experienced seven droughts in a period of ten years from 1991–2000.

[63] USAID. 2013. Uganda climate change vulnerability assessment report. Available at: http://community.eldis.org/.5b9bfce3/ARCC-Uganda%20VA-Report.pdf.

Future climate change

The projected changes in climate in the **LVB** include an increase in mean annual temperature of 0.2–0.5°C per decade in the 21st century. This increase in temperature is expected to cause an increase of 5–20% in the volume of annual rainfall in wet months (December–February) and a decrease of 5–10% in the volume of annual rainfall in the dry months (June–August). Furthermore, changes in rainfall patterns are expected to be largely unpredictable, with prolonged periods of both drought and intense rainfall[64].

In **Burundi**, mean annual rainfall is expected to increase by 3–10%, with increases in rainfall volume in November–March of more than 25% and decreases in rainfall in May–October of 4–16%. The mean annual temperature in Burundi is expected to increase by 0.4°C per decade, with an overall increase of 2.3°C by 2050[65].

By the year 2060, the average annual temperature in **Kenya** is expected to increase by 1–2.8°C. Projections of future rainfall indicate a consistent increase in annual rainfall volume, with the largest predicted increases – 3–49 mm per month – occurring between October and May[66].

In **Rwanda**, climate projections show an increase in mean annual temperature of 1.3–1.9°C by 2050, and an increase of 2.3–3.3°C by 2100. In addition, mean annual rainfall is expected to increase, but with current data limitations, it is not feasible to predict the magnitude of this increase[67].

The mean annual temperature in **Tanzania** is predicted to increase by 1–2.7°C by 2060 and by 1.5–4.5°C by 2090, with an increased occurrence and duration of heatwaves. The mean annual rainfall in Tanzania is predicted to increase, as well as the variation in rainfall patterns. Specifically, an increase in the frequency of both intense rainfall events and drought periods is predicted[68].

In **Uganda**, the mean annual temperature is expected to increase by 1.5°C by 2020 and by up to 4.3°C by 2080. Increased variability in rainfall patterns is expected, but these changes cannot be predicted with certainty. In general, a change in the frequency of extreme climate events, such as heatwaves, droughts, floods and storms is expected. In addition, Uganda's mean annual rainfall is expected to increase, although the distribution of these increases across Uganda will not be uniform and will vary according to the distribution of intense rainfall events[69].

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[64] Mwiturubani, D.A. 2010. Climate change and access to water resources in the Lake Victoria Basin. Institute for Security Studies: Monograph 170. 63–79. Available at: http://mercury.ethz.ch/serviceengine/Files/ISN/117761/ichaptersection_singledocument/ee7c3713-e87b-44e8-8d98-6b9492dc1ce1/en/Pages+from+Mono170-5.pdf.

[65] ICPAC, Kenya & SEI, United Kingdom. 2009. Economics of climate change: Kenya, Rwanda and Burundi. DFID, London.

[66] Kenya risk screening overview: climate change knowledge portal. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=KEN&ThisTab=RiskOverview.

[67] Rwanda Risk screening overview: climate change knowledge portal. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=RWA&ThisTab=RiskOverview.

[68] Tanzania Risk screening overview: climate change knowledge portal. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=TZA&ThisTab=RiskOverview.

[69] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security. Available at: http://www.ugandacoalition.or.ug/sites/default/files/Lake%20Victoria%20CC%20Readness%20brief%20No.%203%20English_0.pdf.

Past and current effects of climate change

While changes in climate have varied at national levels across the LVB, the negative effects associated with these changes in climate have been consistent at a regional level. Specifically, as a result of reduced rainfall volume and increased variation in rainfall patterns, the volume of water in Lake Victoria has decreased[70]. In Burundi, reduced rainfall volume and increased annual temperatures have resulted in a drying trend and desertification in the low-lying, peripheral areas[71]. In Kenya, the increased unpredictability and intensity of rainfall events[72] has increased the frequency of flooding events[73]. Across the LVB, a number of prolonged drought events have occurred, specifically in 1983/1984, 1991/1992, 1995/1996 and 2004/2005, all of which have resulted in famine[74].

Climate change has negatively affected the agricultural sector. Firstly, temporal and spatial variability in rainfall have resulted in a decrease in agricultural productivity in the LVB. This decrease in productivity is widespread[75] as rain-fed agriculture is practiced by 60% of the population in the LVB and contributes ~40% to national GDPs[76]. Secondly, increased annual temperatures have resulted in heat stress in livestock, which reduces growth rates, reproductive rates, milk production, wool production as well as the health and welfare of livestock animals[77]. Therefore, climate change is contributing to food insecurity in the LVB and increasing the vulnerability people whose livelihoods are underpinned by agriculture.

The fisheries sector in the LVB has been adversely affected by the changes in distribution and/or quantity of freshwater resources. While a number of factors have contributed to these changes, reduced rainfall has exacerbated the decline in fish populations. In Uganda, for example, the annual catch of Nile perch has decreased by ~26% during the 2005–2011 period

[70] Mwiturubani, D.A. 2010. Climate change and access to water resources in the Lake Victoria Basin. Institute for Security Studies: Monograph 170. 63–79. Available at: http://mercury.ethz.ch/serviceengine/Files/ISN/117761/ichaptersection_singledocument/ee7c3713-e87b-44e8-8d98-6b9492dc1ce1/en/Pages+from+Mono170-5.pdf.

[71] Netherlands Commission for Environmental Assessment – Dutch Sustainability Unit: Climate Change Profile: Burundi. Available at: http://api.commissiemer.nl/docs/os/i71/i7152/climate_change_profile_burundi.pdf.

[72] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security. Available at: http://www.ugandacoalition.or.ug/sites/default/files/Lake%20Victoria%20CC%20Readness%20brief%20No.%203%20English_0.pdf.

[73] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security. Available at: http://www.ugandacoalition.or.ug/sites/default/files/Lake%20Victoria%20CC%20Readness%20brief%20No.%203%20English_0.pdf.

[74] Awange, J.L., Aluoch, J., Ogallo, L.A., Omulo, M. & Omondi, P. 2007. Frequency and severity of drought in the Lake Victoria region (Kenya) and its effects on food security. Climate Research: 33, 135–142.

[75] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.

[76] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.

[77] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.

(94,903 to 70,061 tonnes). The catch of tilapia is also reported to have decreased by 34% over the same period (29,450 to 19,350 tonnes)[78].

Climate variability has resulted in fluctuations in the volume of water in Lake Victoria. These fluctuations have adversely affected the generating capacity of hydropower facilities and infrastructure within the LVB. For example, in 2002 and 2004, the declining volume of water in Lake Victoria coupled with an increasing demand for electricity led to several power shortages and blackouts in Kampala (Uganda)[79].

Future effects of climate change

As a result of the predicted increase in the frequency of intense rainfall events, flooding is expected to occur, particularly in low-lying areas of the LVB. The frequency of droughts is also predicted to increase, by 40–60% in Burundi, for example[80]. Floods are expected to increase in frequency and magnitude in the low-lying areas. As ~80% of Lake Victoria's water volume is provided by direct rainfall, the predicted spatial variation in rainfall patterns will result in changes in water availability[81].

A predicted decline of 50–150 mm in rainfall volume per season in the LVB, coupled with increased variability in rainfall patterns, is expected to reduce the productivity of farming – for example a ~10% reduction of total grain production in East Africa by 2080[82] is predicted. In addition, the increased frequency and severity of extreme weather events is expected to increase livestock mortality[83]. Therefore, under the future conditions of climate change, regional food insecurity will be exacerbated and vulnerability of local communities within the LVB to climate change will be increased as livelihoods underpinned by agriculture become increasingly marginal.

Because livelihoods and several national sectors within the LVB are reliant on natural resources, climate change may indirectly result in negative socio-economic effects. To illustrate this point, reduced water availability across the LVB may provoke conflict as competition for water increases. Specifically:

- At the household level, water is used in very specific activities such as farming and household chores largely undertaken by women. As the local communities within the LVB adopt a patriarchal system, potential conflicts may lead to women being disproportionately affected by having to walk longer distances daily to access water.

[78] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.
[79] Hepworth, N. & Goulden, M., 2008, Climate Change in Uganda: understanding the implications and appraising the response. LTS International, Edinburgh.
[80] Burundi Risk screening overview: climate change knowledge portal. Available at: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=BDI&ThisTab=RiskOverview.
[81] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.
[82] Mwiturubani, D.A. 2010. Climate change and access to water resources in the Lake Victoria Basin. Institute for Security Studies: Monograph 170. 63–79.
[83] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.

- At the community level, the influx of people from areas of water scarcity to areas of water abundance may lead to conflicts between different communities. Such inter-community conflict may require involvement from district or national-level government institutions.
- At the national/transboundary level, the decisions taken to manage water resources will have upstream and downstream consequences. Decisions taken in self-interest by one country – for example draining Lake Victoria to increase hydropower generation – that is detrimental to a neighbouring country might provoke an international dispute and reduce the likelihood of cooperation in regional resource management initiatives[84].

Problem to be addressed by the project

The problem to be addressed by the project is that climate change is inadequately integrated into regional transboundary water catchment management within the LVB. This is increasing the vulnerability of communities within the LVB. This problem is expected to intensify under the conditions of future climate change, specifically increasing variability in rainfall patterns and increasing mean annual temperatures. To address this problem, the project will focus on overcoming a number of specific challenges listed below.

- Institutional capacity to include climate change adaptation into plans, strategies and policies for transboundary water management and development initiatives is limited.
- The delivery of climate information to policy and decision-makers and communities in the LVB is limited and therefore the effectiveness of long-term planning in transboundary water management is reduced.
- Livelihoods of local communities within the LVB are not climate resilient and therefore these communities are vulnerable to the effects of climate change, particularly to the reduced water quality and availability.
- Technical capacity within local communities to implement activities that promote climate change adaptation is limited.
- Sharing of knowledge within the LVB on climate change adaptation and transboundary water catchment management is limited.

Project/Programme Objectives:

List the main objectives of the project/programme.

The overall objective of this project is to "reduce vulnerability to the negative effects of climate change in the five Lake Victoria Basin countries, namely Burundi, Kenya, Rwanda, Tanzania and Uganda, by building climate resilience". To achieve this objective, five project outcomes are proposed:

1. Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.
2. Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.
3. Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.

[84] Mwiturubani, D.A. 2010. Climate change and access to water resources in the Lake Victoria Basin. Institute for Security Studies: Monograph 170. 63–79.

4. Regional resilience to climate change promoted through innovative, community-based projects.
5. Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.

Project/Programme Components and Financing:

Fill in the table presenting the relationships among project components, outcomes, outputs and countries in which activities would be executed, and the corresponding budgets.

For the case of a programme, individual components are likely to refer to specific sub-sets of stakeholders, regions and/or sectors that can be addressed through a set of well-defined interventions/projects.

Table 2. Logical framework for the proposed AF project, including indicative activities and budget estimates per component.

Project Components	Expected Outcomes	Expected Outputs	Indicative activities	Countries	Amount (US$)
1. Improving regional management of a transboundary water catchment	1. Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.	1.1. Strengthened institutional coordination mechanism to sustain a climate-resilient approach to transboundary water catchment management.	1.1.1. Strengthen – building on the stakeholder engagement strategy prepared by the CCTWG – and sustain the flow of information between the following: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy and decision-makers.	Burundi, Kenya, Rwanda, Tanzania and Uganda	490,000
			1.1.2. Support meetings of the CCTWG to plan and implement climate-resilient approaches to transboundary water catchment management.		

			1.1.3. Undertake regional capacity-building exercises in water catchment management in the context of climate change in organisations such as *inter alia:* i) LVBC; ii) CCTWG; iii) EAC Climate Change Unit; iv) Lake Victoria Region Local Authority Cooperation; and v) Joint Technical Committee of the Mara River Basin.		
		1.2. Training provided to government ministries and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment management.	1.2.1. Develop/revise training material on climate change adaptation and water catchment management.		
			1.2.2. Provide training on climate change adaptation and water catchment management at the regional level to national government representatives from the climate change, environment, water and local government sectors in each of the five Partner States.		
			1.2.3. Provide training on climate change, climate change adaptation and water management at national workshops which will include civil society, NGOs and the private sector.		
2. Climate information dissemination	2. Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.	2.1. Tailored climate information packages to guide both operational and long-term strategic planning.	2.1.1. Train representatives from the national meteorological agencies in each of the five Partner States on downscaling regional climate information to the national level.	Burundi, Kenya, Rwanda, Tanzania and Uganda	450,000
			2.1.2. Develop tailored climate information packages for: i) policy- and decision-makers; and ii) local communities.		
		2.2. Climate information dissemination mechanism strengthened to deliver climate	2.2.1. Identify cost-effective means of strengthening existing climate information dissemination mechanisms, including ICPAC, FEWSNET,		

		information to national policymakers, LVBC technical officers and local communities.	RCMRD and DHI.		
			2.2.2. Strengthen existing climate information dissemination mechanisms – including the LVBC information hub – to develop an LVB-specific platform for climate information.		
			2.2.3. Deliver climate information for long-term strategic planning to policy and decision-makers in regional organisations as well as technical staff in national ministries within the LVB.		
			2.2.4. Pilot innovative information-sharing mechanisms – such as the provision of climate information through mobile networks – to deliver climate information to communities in a locally relevant and accessible format.		
3. Regional approach to climate change adaptation in vulnerable communities.	3. Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.	3.1. Project intervention sites and appropriate adaptation technologies identified.	3.1.1. Apply findings/lessons learned from past and current LVBC programmes (LVWATSAN, LVEMP II, PREPARED Vulnerability Assessment) to identify potential project intervention sites.	Burundi, Kenya, Rwanda, Tanzania and Uganda	1,700,000
			3.1.2. Conduct a stocktake of adaptation interventions detailed in existing national strategies and action plans, recommendations from other regional projects and findings of scientific research in the LVB to identify appropriate adaptation technologies to be implemented regionally.		
		3.2. Extension officers and local communities trained on climate change adaptation technologies	3.2.1. Train extension officers and local community members at selected intervention sites on climate change adaptation technologies including water conservation practices, climate-smart		

		including water conservation practices, climate-smart agricultural techniques and EbA activities.	agricultural techniques and EbA activities.		
			3.2.2. Establish demonstration sites for climate change adaptation technologies at selected intervention sites.		
			3.2.3. Organise information exchange visits where people from communities surrounding the project intervention sites are exposed to the climate change adaptation technologies.		
		3.3. Climate change adaptation technologies demonstrated at selected project intervention sites.	3.3.1. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Burundi.		
			3.3.2. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Kenya.		
			3.3.3. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Rwanda.		
			3.3.4. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Tanzania.		
			3.3.5. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Uganda.		
4. Community-	4. Regional resilience to	4.1. Small-scale projects funded	4.1.1. Host workshops with communities at	Burundi, Kenya,	1,250,000

based approaches to climate change adaptation	climate change promoted through innovative, community-based projects.	to promote innovative approaches to climate change adaptation.	intervention sites selected in Component 3 to identify specific climate change impacts and appropriate community-based adaptation interventions.	Rwanda, Tanzania and Uganda	
			4.1.2. Provide training to local communities or relevant local-level government or NGOs on how to develop a project proposal and the necessary financial, administrative and monitoring procedures for a small-scale project.		
			4.1.3. Review project proposals and select successful project proponents.		
			4.1.4. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Burundi.		
			4.1.5. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Kenya.		
			4.1.6. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Rwanda.		
			4.1.7. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Tanzania.		
			4.1.8. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Uganda.		
			4.1.9. Undertake monitoring and evaluation of small-scale projects to provide information for Outcome 5.		

5. Knowledge management and learning	5. Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.	5.1. A forum established to promote the collaboration of research initiatives across the Lake Victoria Basin, with a focus on adaptation to climate change.	5.1.1. Hold regional workshops with researchers and technical experts to plan interdisciplinary research projects on climate change adaptation and water catchment management.	Burundi, Kenya, Rwanda, Tanzania and Uganda	318,489
			5.1.2. Establish a forum of researchers and technical experts working on climate change adaptation to coordinate climate change research initiatives across the LVB.		
			5.1.3. Promote knowledge sharing through the Global Adaptation Network (GAN), Africa Adaptation Knowledge Network (AAKNet) and Africa Adaptation Initiative.		
		5.2. Awareness-raising campaign to share lessons learned with stakeholders, ranging from policy- and decision-makers to vulnerable communities in the Lake Victoria Basin.	5.2.1. Develop a detailed communications strategy – building on the communication and outreach strategy prepared by the CCTWG – to share lessons learned from the project with relevant national and regional stakeholders through appropriate media.		
			5.2.2. Produce awareness-raising materials on water management and climate change adaptation.		
			5.2.3. Undertake awareness-raising campaigns for vulnerable communities to share lessons on water management and climate change adaptation.		
			5.2.4. Distribute awareness-raising materials – translated into local languages where appropriate – to policy and decision-makers in national ministries and regional organisations to raise awareness on transboundary water management in the		

			context of climate change and lessons learned from adaptation interventions demonstrated through Component 3 and 4.		
			5.2.5. Host exhibitions to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through Component 3 and 4.		
6. Project/Programme Execution cost (9.5%)					399,806
7. Total Project/Programme Cost					4,608,295
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (8.5%)					391,705
Amount of Financing Requested					**5,000,000**

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme.

Table 3. Projected milestone dates for the proposed AF project.

Milestones	Expected dates
Start of Project/Programme Implementation	January 2017
Mid-term Review (if planned)	June 2018
Project/Programme Closing	December 2019
Terminal Evaluation	September 2019

PART II: PROJECT/PROGRAMME JUSTIFICATION

A. Project components

Describe the project/programme components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually. For the case of a programme, show how the combination of individual projects would contribute to the overall increase in resilience.

To achieve its objective, the project will focus both on strengthening regional coordination across the LVB and on implementing concrete on-the-ground adaptation activities in the selected intervention sites. The project will include five components, the details of which are provided below.

Component 1: Improving regional management of a transboundary water catchment

Outcome 1: Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.

Output 1.1: Strengthened institutional coordination mechanism to sustain a climate-resilient approach to water catchment management.

To improve regional coordination in transboundary water catchment management and climate change adaptation, existing transboundary institutional coordination mechanisms will be strengthened. Currently, the Climate Change Technical Working Group (CCTWG) of the East African Community (EAC) serves as a coordination mechanism between regional organisations and projects. As such, the AF project will strengthen the functioning of the CCTWG by supporting meetings of the group to discuss and coordination climate change adaptation in the context of transboundary water catchment management. In addition, the AF project will strengthen coordination between the CCTWG and other relevant stakeholder based on the recommendations of the stakeholder engagement plan prepared by the CCTWG with the support of the PREPARED project. Strengthening the existing institutional coordination mechanisms will ensure the most effective flow of information between *inter alia*: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy- and decision-makers.

Indicative activities to be implemented under Output 1.1 are:

1.1.1. Strengthen – building on the stakeholder engagement strategy prepared by the CCTWG – and sustain the flow of information between the following: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy and decision-makers.

1.1.2. Support meetings of the CCTWG to plan and implement climate-resilient approaches to transboundary water catchment management.

1.1.3. Undertake regional capacity-building exercises in water catchment management in the context of climate change in organisations such as *inter alia:* i) LVBC; ii) CCTWG; iii) East African Community (EAC) Climate Change Unit; iv) Lake Victoria Region Local Authority Cooperation; and the v) Joint Technical Committee of the Mara River Basin.

Output 1.2: Training provided to government ministries and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment management.

The success of the transboundary institutional coordination mechanism developed under Output 1.1 will depend on adequate knowledge and capacity within regional and national institutions within the LVB to undertake transboundary water catchment management and climate change adaptation. Therefore, the focus of Output 1.2 will be on providing training to a range of regional and national organisations within the LVB. This training will include modules on: i) best-practice adaptation practices; ii) integrating climate change into transboundary water catchment management; and iii) gender considerations in climate change adaptation and water management.

Indicative activities to be implemented under Output 1.2 are:

1.2.1. Develop/revise training material on climate change adaptation and water catchment management.

1.2.2. Provide training on climate change adaptation and water catchment management at the regional level to national government representatives from the climate change, environment and water sectors in each of the five Partner States.

1.2.3. Provide training on climate change, climate change adaptation and water management at national workshops which will include civil society, non-governmental organisation (NGOs) and the private sector.

Component 2: Climate information dissemination

Outcome 2: Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.

Output 2.1: Tailored climate information packages to guide both operational and long-term strategic planning.

With the large geographical area of the LVB, there are a number of initiatives at the regional level – for example IGAD Climate Prediction and Application Centre (ICPAC), Famine Early Warning Systems Network (FEWSNET), Regional Centre for Mapping of Resources for Development (RCMRD) and UNEP-Danish Hydraulic Institute (DHI) – that collect climate information. However, this information is not always available to policy-makers, technical officers and local communities in a format that is accessible and able to inform decision-making. Activities in Output 2.1 will focus on developing tailored climate information that will supply relevant information to guide both operational (community-level) and long-term strategic (national-level) planning.

Indicative activities to be implemented under Output 2.1 are:

2.1.1 Train representatives from the national meteorological agencies in each of the five Partner States on downscaling regional climate information on the national level.

2.1.2 Develop tailored climate information packages for: i) policy- and decision-makers; and ii) local communities.

Output 2.2: Climate information dissemination mechanism strengthened to deliver climate information to national policymakers, LVBC technical officers and local communities.

The tailored climate information packages developed under Output 2.1 will be shared through strengthened climate information dissemination mechanisms under Output 2.2. At the regional level, the climate information mechanisms to be strengthened will be determined by existing regional organisations and will likely include the those operated by ICPAC and the LVBC information hub. These regional mechanisms will be used to disseminate tailored climate information packages, specific to the LVB, to policy-makers and technical officers. To share climate information with local communities at the selected project intervention sites, innovative information-sharing mechanisms – such as the provision of climate information through mobile networks[85] – will be piloted.

Indicative activities to be implemented under Output 2.2 are:

2.2.1 Identify cost-effective means of strengthening existing climate information dissemination mechanisms, including ICPAC, FEWSNET, RCMRD and DHI.

2.2.2 Strengthen existing climate information dissemination mechanisms – including the LVBC information hub – to develop an LVB-specific platform for climate information.

2.2.3 Deliver climate information for long-term strategic planning to policy and decision-makers in regional organisations as well as technical staff in national ministries within the LVB.

2.2.4 Pilot innovative information-sharing mechanisms – such as the provision of climate information through mobile networks – to deliver climate information to communities in a locally relevant and accessible format.

Component 3: Regional approach to climate change adaptation in vulnerable communities

Outcome 3: Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.

Output 3.1: Project intervention sites and appropriate adaptation technologies identified.

To ensure that the project's on-the-ground interventions are implemented in accessible sites where local communities are vulnerable to the effects of climate change, project intervention sites will be identified building on the results of a climate change Vulnerability Assessment for the LVB undertaken by PREPARED. The Vulnerability Assessment – which is expected to

[85] Such a mechanism has been trialled by the PREPARED project in Kenya and may be replicated in this project.

completed in September 2016 – will identify priority climate hotspots throughout the LVB[86]. Through a process of stakeholder engagement, specific sites within these hotspots will be identified in each Partner State.

In addition to project intervention sites, appropriate adaptation technologies will be identified. These technologies should be based on best-practice across the LVB and should address regional climate change threats. These technologies will be selected based on the recommendations from existing studies, projects and national strategies, and will include including water conservation practices, climate-smart agricultural techniques and EbA activities.

Indicative activities to be implemented under Output 3.1 are:

3.1.1. Apply findings/lessons learned from past and current LVBC programmes – Lake Victoria Region Water and Sanitation Initiative II (LVWATSAN), Lake Victoria Environmental Management Programme Phase II (LVEMP II) and PREPARED Vulnerability Assessment – to identify potential project intervention sites.

3.1.2 Conduct a stocktake of adaptation interventions detailed in existing national strategies and action plans, recommendations from other regional projects and findings of scientific research in the LVB to identify appropriate adaptation technologies to be implemented regionally.

Output 3.2: Extension officers and local communities trained on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.

To promote local ownership of project interventions and to increase local-level technical capacity, extension officers and local community members – including women and vulnerable groups – will be trained and equipped to undertake: i) water conservation practices; ii) climate-smart agricultural techniques; and iii) EbA activities.

Indicative activities to be implemented under Output 3.2 are:

3.2.1 Train extension officers and local community members at selected intervention sites on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.

3.2.2 Establish demonstration sites for climate change adaptation technologies at selected intervention sites.

3.2.3. Organise information exchange visits where people from communities surrounding the project intervention sites are exposed to the climate change adaptation technologies.

Output 3.3: Climate change adaptation technologies demonstrated at selected project intervention sites.

Once appropriate sites have been identified under Output 3.1 and training has been provided under Output 3.2, on-the-ground adaptation interventions will be implemented, including water

[86] including *inter alia* Rwegura River (Burundi), Chohoha Lake (Burundi and Rwanda), Yala Swamp (Kenya), Mara River Basin (Kenya and Tanzania), Nyabugogo Swamp (Rwanda), Mwanza Gulf (Tanzania), Sango Bay (Tanzania and Uganda) and Lake Nabugabo (Uganda)

conservation practices, climate-smart agricultural techniques and EbA activities. These on-the-ground interventions will reduce the vulnerability of communities within the selected project sites to the negative effects of climate change. Lessons learned from these adaptation interventions will be shared at a regional level under Component 5. In addition, regional and long-term research initiatives promoted under Component 5 will be encouraged to include adaptation interventions in Component 3 as sources of data.

Indicative activities to be implemented under Output 3.3 are:

3.3.1 Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Burundi.

3.3.2 Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Kenya.

3.3.3 Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Rwanda.

3.3.4 Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Tanzania.

3.3.5 Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Uganda.

Component 4: Community-based approaches to climate change adaptation

Outcome 4: Regional resilience to climate change promoted through innovative, community-based projects.

Output 4.1: Small-scale projects funded to promote innovative approaches to climate change adaptation.

To promote innovative and community-based approaches to water management and conservation, a small grants project programme will be implemented. Communities will be encouraged to submit project ideas and plans that focus on addressing community climate-related threats, that are LVB-specific, through the implementation of climate change adaptation technologies and practices, including water conservation practices, climate-smart agricultural techniques and EbA activities. Community grant applicants will be selected using a fair and transparent process. Technical guidance will be provided to project proponents to increase the likelihood of each project's success and to increase the technical capacity of project proponents. As with Component 3, selection criteria of project proponents will prioritise climate hotspots.

Indicative activities to be implemented under Output 4.1 are:

4.1.1 Host workshops with communities at intervention sites selected in Component 3 to identify specific climate change impacts and appropriate community-based adaptation interventions.

4.1.2 Provide training to local communities or relevant local-level government or NGOs on how to develop a project proposal and the necessary financial, administrative and monitoring procedures for a small-scale project.

4.1.3 Review project proposals and select successful project proponents.

4.1.4 Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Burundi.

4.1.5 Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Kenya.

4.1.6 Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Rwanda.

4.1.7 Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Tanzania.

4.1.8 Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Uganda.

4.1.9 Undertake monitoring and evaluation of small-scale projects to provide information for Outcome 5.

Component 5: Knowledge management and learning

Outcome 5: Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.

Output 5.1: A forum established to promote the collaboration of research initiatives across the Lake Victoria Basin, with a focus on adaptation to climate change.

To promote the coordination between researchers, technical experts and policy and decision-makers, a research forum with a focus on transboundary water management and climate change adaptation will be established. This research forum will be established in collaboration with regional institutions including *inter alia* the CCTWG and the Inter-University Council for East Africa. By supporting collaborative research efforts, the project's interventions can increase the evidence base to leverage funds to address climate change adaptation and transboundary water management. Research initiatives promoted through the regional research forum will be encouraged to include adaptation interventions in Component 3 as sources of data.

Indicative activities to be implemented under Output 5.1 are:

5.1.1 Hold regional workshops with researchers and technical experts to plan interdisciplinary research projects on climate change adaptation and water catchment management.

5.1.2 Establish a forum of researchers and technical experts working on climate change adaptation to coordinate climate change research initiatives across the LVB.

5.1.3 Promote knowledge sharing though the Global Adaptation Network (GAN), Africa Adaptation Knowledge Network (AAKnet) and Africa Adaptation Initiative.

Output 5.2: Awareness-raising campaign to share lessons learned with stakeholders, ranging from policy- and decision-makers to vulnerable communities in the LVB.

The sharing of knowledge and project results will be targeted towards vulnerable communities within the LVB as well as policy- and decision-makers in national ministries and regional organisations. The lessons learned and results from on-the-ground adaptation activities under Component 3 will be included to ensure that local-level interventions are shared at a regional level.

Indicative activities to be implemented under Output 5.2 are:

5.2.1 Develop a detailed communications strategy – building on the communication and outreach strategy prepared by the CCTWG – to share lessons learned from the project with relevant national and regional stakeholders through appropriate media.

5.2.2. Produce awareness-raising materials on water management and climate change adaptation.

5.2.3 Undertake awareness-raising campaigns for vulnerable communities to share lessons on water management and climate change adaptation.

5.2.4 Distribute awareness-raising materials – translated into local languages where appropriate – to policy- and decision-makers in national ministries and regional organisations to raise awareness on transboundary water management in the context of climate change and lessons learned from adaptation interventions demonstrated through Component 3 and 4.

5.2.5 Host exhibitions to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through Component 3 and 4.

B. Promotion of new and innovative solutions to climate change adaptation

Describe how the project/programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.

Under Component 3, project site selection will be undertaken based on past and current LVBC programmes, namely: i) LVWATSAN; ii) LVEMP II; and iii) a Vulnerability Assessment currently being developed under PREPARED. Furthermore, the PREPARED Vulnerability Assessment will identify techniques for community engagement. Project sites will include communities that are vulnerable to the effects of climate change, particularly reduced water availability. These target communities will also have limited adaptive capacity as a result of limited access to technology and limited knowledge of climate-resilient practices. Therefore, the implementation of adaptation interventions – including water conservation practices[87], climate-smart agricultural techniques[88] and EbA activities[89] – will be innovative within a local context. By promoting alternative livelihoods based on sustainable natural resource use, EbA in particular will represent an innovative livelihood strategy for local communities.

[87] Examples of water conservation practices include *inter alia*: i) micro-scale water harvesting infrastructure; ii) diversion ditches and cut-off drains; and iii) mulching.
[88] Examples of climate-smart agricultural techniques include *inter alia*: i) including climate forecasts in medium-term planning; and ii) adopting drought-tolerant and early maturing plant varieties and animal breeds.
[89] Examples of EbA activities include *inter alia*: i) homegardens; and ii) agroforestry.

Under Component 4, community-based adaptation will be promoted through a small grants modality through the implementation of innovative adaptation interventions. Specifically, one of the criteria used to select project proponents will be the innovativeness of the proposed project. In addition, the small-scale projects programme is well-suited to foster innovative approaches for three reasons. Firstly, the small-scale projects will be designed to address specific climate change threats in targeted communities drawing on local/indigenous knowledge, thereby promoting innovative local level ideas. Secondly, the local scale and moderate budget (<US$50,000) of small-scale projects under the small grants modality provides a relatively low-risk opportunity to trial new and innovative approaches to adaptation. Thirdly, innovative projects that are successful can be up-scaled, thereby promoting an innovative approach to adaptation at a regional level.

Under Component 5, a research forum will be established by the LVBC in partnership with research institutions active in the LVB. The objective of this research forum is to promote LVB-wide collaboration between research initiatives with a specific focus on adaptation to climate change and water catchment management. Academic institutions as well as technical experts in climate change adaptation will be included as participants. This forum will provide opportunities for researchers to plan interdisciplinary research projects, co-author scientific publications and establish links with policy- and decision-makers. Within the LVB, a research forum focused on climate change adaptation will be innovative. An encouraging proof-of-concept was demonstrated in South Africa[90]. Specifically, a period of intense collaborative research – which illustrated the economic benefit of ecosystem services – resulted in publications[91] that motivated for the leveraging of finance to restoration programmes at a national scale. A similar approach will be followed under Component 5, with the goal of using research outputs to leverage financing for climate change adaptation and the management of transboundary water catchments.

C. Economic, social and environmental benefits

Describe how the project/programme would provide economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.

Economic benefits

Agricultural activities – and the consequent clearing of vegetation – within the LVB are negatively affecting the livelihoods of subsistence fisherfolk. Specifically, runoff from soil erosion increases the concentration of nutrients – for example nitrogen and phosphorous – in Lake Victoria and its tributaries[92]. This increased nutrient load increases the intensity of eutrophication, which has favoured the Nile perch (*Lates niloticus*) to the detriment of a number

[90] For example, the Working for Water Programme. For further information, see: https://www.environment.gov.za/projectsprogrammes/wfw.

[91] The publication of several high-profile scientific articles provided a platform from which ecosystem management initiatives could be implemented. Examples of these scientific articles are:

- van Wilgen, B., Cowling, R.M. & Burgers, C.J. 1996. Valuation of ecosystem services. BioScience: 46, 184–189.
- van Wilgen, B., Le Maitre, D.C. & Cowling, R.M. 1998. Ecosystem services, efficiency, sustainability and equity: South Africa's Working for Water Programme. Trends in Ecology and Evolution: 13, 378.

[92] Machiwa, P.K. 2002. Water quality management and sustainability: The experience of Lake Victoria Environmental Management Project: paper presented at the WaterNet/WAFRSA Symposium, Dar es Salaam.

of tilapia species. Rural communities preferentially eat tilapia and it provides a relatively inexpensive source of protein. Therefore, vegetation clearing for agriculture and the resultant soil erosion is indirectly impacting the livelihoods of rural communities in the LVB. By reducing soil erosion through EbA activities[93] that promote soil stabilisation and ecosystem recovery, the recovery of tilapia populations will be promoted and the livelihoods of rural communities will be strengthened.

Of the total land area of the LVB, ~45% is already under cultivation[94] and subsistence agriculture underpins the livelihoods of ~80% of the region's population[95]. Climate change, specifically increasing mean annual temperatures and the increased frequency and intensity of floods and droughts, is expected to impact negatively on the agricultural sector. These negative impacts of climate change on agriculture include *inter alia*: i) reduced crop yields; ii) reduced reproductive rates in livestock; and ii) reduced wool and milk yields[96]. By training local communities and extension officers (Component 3) in climate-smart agricultural techniques[97] and providing the required equipment, the economic benefits of agriculture under the conditions of climate change will increase in the short term. In addition, as compared to the baseline scenario, the economic benefits of agriculture will be sustainable in the medium to long term.

Water in the LVB underpins a number of economic activities, including transport[98], hydropower[99] and fisheries[100]. Climate change in the LVB – for example, increased variability in rainfall patterns and an increased frequency in floods and droughts – will impact negatively on these economic activities. These negative impacts of climate change will be exacerbated without accurate and complete climate forecasts. By improving the delivery of climate information (Component 2) and promoting regional coordination (Component 1), the project activities will allow economic sectors to undertake medium- and long-term planning and therefore limit the negative impacts of climate change on water resources, as compared to the baseline scenario.

Social benefits

Under Component 1, capacity-building activities undertaken in regional and national organisations will include a module on gender sensitivity[101]. This training will promote the inclusion of gender-sensitive considerations in regional and national policies and strategies.

Women and vulnerable groups will be prioritised in the selection of project sites (Output 3.1) to ensure that benefits accruing from on-the-ground activities are directly accessible. Training activities provided (Output 3.2) to local communities on the implementation of on-the-ground

[93] Examples of EbA activities include *inter alia*: i) homegardens; and ii) agroforestry.
[94] Machiwa, P.K. 2002. Water quality management and sustainability: The experience of Lake Victoria Environmental Management Project Paper presented at the WaterNet/WAFRSA Symposium, Dar es Salaam.
[95] The Global International Waters Assessment. 2006. East African Rift Valley lakes. GIWA Regional Assessment
[96] East African Sustainability Watch Network. 2014. Lake Victoria climate change readiness brief, No.3: progress and level of implantation of the East African Community climate change policy commitments in the Lake Victoria Basin with respect to agriculture, nutrition and food security.
[97] Examples of climate-smart agricultural techniques include *inter alia*: i) including climate forecasts in medium-term planning; and ii) adopting drought-tolerant and early maturing plant varieties and animal breeds.
[98] Lake Victoria facilitates regional transportation with major transport routes connecting the towns of Musoma, Mwanza, Bukoba (Tanzania), Port Bell, Jinja (Uganda) and Kisumu (Kenya).
[99] The World Bank. Energy and mining data. Available at: http://data.worldbank.org/topic/energy-and-mining.
[100] Njiru, M., Sitoki, L., Nyamweya, C., Jembe, T., Aura, C., Waithaka, E. & Masese, F. 2012. Habitat degradation in Lake Victoria fisheries. Advances in Environmental Research: 27, 1–34.
[101] If relevant, considerations of indigenous peoples and vulnerable groups will be included in this training module.

adaptation interventions will target both women and vulnerable groups, to both promote skills development and diversify livelihood opportunities.

Under Component 4, a small-scale project programme based on the small grants modality will be applied to award to projects that are designed and implemented in local communities. By providing access to both resources and technical expertise, the project activities will up-skill members of local communities. In addition, under Component 5, Output 5.2 – the community-based awareness campaign to promote upscaling of successful practices using lessons learned – will provide an opportunity for local communities to expand their projects and generate benefits at a larger scale.

Environmental benefits

Activities included under Component 1 will: i) strengthen the institutional coordination mechanism guiding transboundary water catchment management; and ii) increase regional and national capacity to manage transboundary water catchments, with a particular focus on climate change. Through improved institutional coordination, the project's activities will improve the regional planning and management of transboundary water catchments, resulting in regional environmental benefits, including *inter alia* increased water quality and availability.

Current agricultural practices in the LVB are resulting in a number of negative side-effects. For example, the runoff resulting from soil erosion increases the concentration of nutrients such as nitrogen and phosphorous in Lake Victoria and its tributaries[102]. This increased nutrient load has both reduced water quality and resulted in eutrophication. Under the future conditions of climate change, specifically an increase in the frequency of intense rainfall events, soil erosion will be exacerbated. Through the introduction of climate-smart agriculture techniques and EbA activities, such as agroforestry[103] and homegardens[104] (Component 3), topsoil will be stabilised and conserved. Improved conservation of topsoil will ensure that nutrient runoff is reduced and water quality in Lake Victoria and its tributaries will increase as compared to the baseline scenario.

Future climate change trends are predicted to include: i) an increase in the frequency and intensity of drought events; and ii) an increase in mean annual temperature. Both increased drought and increased temperature will reduce water availability for local communities. Currently, local communities in the LVB do not have adequate equipment and expertise to conserve water. Therefore, under the future conditions of climate change, local communities are likely to draw increasing amounts of water from Lake Victoria and its tributaries to compensate for reduced water availability. Reduced water volume in Lake Victoria and its tributaries will have a number of negative environmental consequences, including reduced habitat availability for aquatic flora and fauna. By providing equipment and training for water conservation practices (Outputs 3.2 and 3.3), the project activities will reduce the need for local communities to draw water from Lake Victoria and its tributaries. Therefore, under the future conditions of climate

[102] Machiwa, P.K. 2002. Water quality management and sustainability: The experience of Lake Victoria Environmental Management Project: paper presented at the WaterNet/WAFRSA Symposium, Dar es Salaam.
[103] Agroforestry is an approach to land-use, in which trees are grown around or among crops. By including a diversity of species, agroforestry can result in increased productivity, increased economic benefits and enhanced ecosystem goods and services, as compared to conventional agriculture.
[104] Homegardens are household-level plantations in which a variety of endemic and agricultural species are maintained to provide economic, cultural and medicinal benefits. Each homegarden is unique and is adapted according to its owners' knowledge and requirements.

change, the negative environmental effects associated from drawing water from Lake Victoria and its tributaries will be reduced as compared to baseline scenario.

For details on how the project will adhere to the Environmental and Social Policy of the Adaptation Fund, please see Section L.

D. Cost-effectiveness analysis

Describe or provide an analysis of the cost-effectiveness of the proposed project/programme and explain how the regional approach would support cost-effectiveness.

The project's activities under Component 1 will promote improved coordination between regional institutions responsible for transboundary water management and climate change adaptation in the LVB, for example: i) LVBC; ii) CCTWG; iii) EAC Climate Change Unit; iv) Lake Victoria Region Local Authority Cooperation; and the v) Joint Technical Committee of the Mara River Basin. Specifically, the project's investment will be used to increase the effectiveness of already-existing institutions in the LVB, for example by i) undertaking capacity-building exercises in water catchment management and climate change adaptation; and ii) developing a strategic coordination mechanism for transboundary water catchment management. Therefore, the benefit of the interventions in Component 1 will be disproportionately large, relative to the project's investment.

The cost-effectiveness of the project's on-the-ground adaptation interventions (Component 3) will be greatly enhanced by the EbA approach. A growing scientific literature suggests that EbA measures result in a greater ratio of benefit:cost compared to the implementation of hard infrastructure. For example, an economic analysis of the restoration and rehabilitation of grasslands and woodlands – from a number of studies occurring across different sites – estimates internal rates of return of 20–60% and benefit:cost ratios of up to 35:1[105] for grasslands. An example of the cost-effectiveness of the EbA approach also emerged from an economic analysis undertaken in Lami, Fiji[106]. This analysis included assessments of the costs and benefits of three approaches to watershed management, namely: i) EbA measures only; ii) hard infrastructure interventions only; and iii) a hybrid approach applying both EbA measures and hard infrastructure interventions. The analysis demonstrated that EbA watershed management options are at least twice as cost-effective as hard infrastructure engineering options, i.e. a benefit:cost ratio of US$19.50:1 for EbA compared to US$9:1 for hard infrastructure. The cost-effectiveness of the EbA approach is expected to benefit the project through the implementation of EbA activities in project sites.

Under Component 5, a forum will be established which will include researchers, academics and technical experts specialising in climate change adaptation and water catchment management. This forum will promote collaborative research and opportunities for knowledge-sharing. In addition, emphasis will be placed on communicating research findings to: i) policy- and decision-makers in the LVB; and ii) stakeholders from economic sectors affected by climate change. By coordinating the efforts of experts already engaged in research and facilitating communication with policy- and decision-makers, the project's investment will accrue a

[105] De Groot, R.S., Blignaut, J., van der Ploeg, S., Aronson, J., Elmqvist, T. & Farley, J. 2013. Benefits of investing in ecosystem restoration. Conservation Biology 27: 1286-1293.
[106] Rao, N.S., Carruthers, T.J.B., Anderson, P., Sivo, L., Saxby, T.A., Durbin, T., Jungblut, V., Hills, T. & Chape, S. 2013. An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands. A technical report by the Secretariat of the Pacific Regional Environment Programme. Apia, Samoa.

disproportionately large benefit for water catchment management in the LVB under the conditions of climate change.

E. Consistency with other strategies

Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.

Selected regional and national plans, strategies and development goals with which the project is aligned are presented in Table 4. Alignment is indicated at component level.

Table 4. The consistency of the proposed AF project with regional and national policies, plans, strategies and development goals.

NATIONAL	
National Adaptation Programmes of Action (NAPA)	
Burundi	**NAPA (2007)** Component 2 of the project is aligned with: • NAPA Priority 1, namely the "improvement of seasonal early warning climate forecasts"; and • NAPA Priority 11, which focuses on climate change education.
Kenya	N/A
Rwanda	**NAPA (2006)** Component 2 of the project is aligned with: • NAPA Priority 2, namely "Mastering hydro "meteorological information and early warning systems to control extreme phenomena due to climate change".
Tanzania	**NAPA (2006)** Components 3 and 4 of the project are aligned with: • NAPA Priority 4, which focuses on climate change adaptation through participatory reforestation and includes awareness on climate change adaptation through community participatory efforts.
Uganda	**NAPA (2007)** Components 1 and 5 of the project are aligned with: • NAPA priority 9, namely "climate change and development planning", under which proposed activities include *inter alia* reviewing existing governing policies to include climate change considerations and awareness-raising on the impacts of climate change with the relevant decision-makers and planners. Component 2 of the project is aligned with: • NAPA priority 3, which focuses on strengthening meteorological services.
National Adaptation Plans	
Kenya	**National Climate Change Action Plan 2013–2017 (NCCAP)**

	Component 1, 3 and 4 of the proposed AF project aligns with: • priority action point 3, which forms one of the six "big wins" of the NCCAP, namely "improved water resource management". Proposed activities for the AF project align with the priority interventions to improve enforcement capacity for efficient water resource management, water monitoring and management, protecting and conserving water catchment areas and campaigns on water harvesting. • the main objective of the NCCAP, which is developing a low-carbon climate resilient pathway as Kenya adapts to climate impacts. The project does this through the development and implementation of transboundary water catchment management practices as detailed in Components 1, 3 and 4. Component 2 and 5 of the proposed AF project aligns with: • a subsidiary objective of the NCCAP, namely encouraging a people-centred development approach, ensuring that climate change actions support Kenya's achievement of development goals.
Intended Nationally Determined Contributions	
Burundi	**Burundi INDC (September 2015)** Component's 1–5 of the proposed AF project are in alignment with: • identified adaptation needs in the INDC, namely to: i) inform, educate and communicate on climate change, climate risks and adaptation technologies; and ii) strengthen the aptitudes of actors in new technical processes. The proposed AF project components will provide training, learning programmes and will provide access to information on the project and adaptation technologies to the communities. Component 1 and 3 of the proposed AF project are aligned with: • a key measure of the INDC, namely the development of access to water while enhancing the efficiency of its use. The project aims to improve regional management of the transboundary water catchment and in doing so will result in more efficient governing practices of water management. Specifically, under Component 3, the project aims to implement climate change adaptation technologies including water conservation practices and climate-smart techniques. Component 2 and 5 of the proposed AF project align with: • another key measure of the INDC, which focuses on developing and disseminating communications on climate risks and adaptation scenarios. The project aligns with this measure through both providing training and specifically developing a communications strategy.
Kenya	**Kenya INDC (July 2015)** Component 3 of the proposed AF project aligns with: • the Medium Term Plan (MTP) priority adaptation action for the science, technology and innovations sector, under which innovation and development of appropriate technologies is supported to promote climate resilient development. The project aims to develop and implement climate change adaptation technologies as well as provide demonstrations and training for their sustainable management. Components 1–5 of the proposed AF project align with: • the MTP priority adaptation action for the: i) environment sector, under which enhancing climate information services and the resilience of ecosystems to climate variability and change are the main objectives; as well as the ii) education and

	training sector which aims to enhance education, training, public awareness and participation and public access to information on climate change adaptation. Through the project components, reviews of existing climate information services will be done, with further development and training being provided. Knowledge management and learning is integrated into each component, involving training with communities, extension officers, public and other sectors. Component 1, 3 and 4 of the proposed AF project aligns with: • the MTP priority adaptation action for the water and irrigation sector, under which the focus is to mainstream climate change adaptation in the water sector. An activity in Component 3 outlines the development and implementation of a strengthening and sustainable strategy for the flow of information between sectors for more efficient management of water catchment areas. Components 3 and 4 address the practical implementation of the climate-smart technologies as well as further training for sustainability.
Rwanda	**Rwanda INDC (November 2015)** Component 3 of the proposed AF project aligns with: • Programme of Action 1, which involves the conservation of water to maximise sustainable food production. The activities of the project involve implementing climate change adaptation technologies in water catchment areas, of which include conservation practices and climate-smart agricultural techniques. Component 1, 3, 4 and 5 of the proposed AF project is aligned with: • Programme of Action 5 of the INDC, under which integrated water resources management and planning is the focus. Through the activities of the project, catchment-wide responsibilities will be established and respective individuals trained to ensure the sustainability of the measures. Component 5 of the project specifically addresses the INDC's aim for important national water datasets to be collected and made available for further development and learning.
Tanzania	**Tanzania INDC (2015)** Component 1, 3 and 4 of the proposed AF project are aligned with: • The intended contributions for the water resources sector as per the INDC, under which promoting integrated water resources development and management practices, and investment in protection and conservation of water catchments are priorities, among others. The project is aligned with these priorities through the development of management strategies and climate change adaptation and conservation technologies specific to water catchment management.
Uganda	**Uganda INDC (October 2015)** Component 3 of the proposed AF project aligns with: • the Priority Adaptation Action for the agriculture sector, under which water conservation practices and climate smart-agriculture techniques are prioritised. Component 1, 3 and 4 of the proposed AF project are aligned with: • the Priority Adaptation Action for the water sector, which prioritises improving water efficiency and water supply, and managing water resource systems to better conserve existing resources. The project activities are aligned with these priorities through developing and implementing climate change adaptation water management and water conservation practices, as well as climate-smart agriculture techniques to better conserve water.
National development goals	

Burundi	N/A
Kenya	**Vision 2030** The Vision focuses on the development of an all-inclusive and cross-sectoral plan to create a globally competitive and prosperous nation with a high quality of life for all citizens by 2030. The vision is implemented in successive five-year plans. In the Vision, the need to improve the national capacity to address climate change is recognised. Therefore, specifically through Components 1 and 2, the project will be strongly aligned with the Vision.
Rwanda	**Vision 2020** The Vision provides a framework for Rwanda's socio-economic development. The objective of the Vision is to transform Rwanda into a middle-income country by 2020. Barriers identified in the vision include *inter alia*: i) diminishing agricultural productivity; and ii) limited institutional capacity. Therefore, the project will be strongly aligned with the Vision under Components 1 and 3.
Tanzania	**Vision 2025** The objective of the Vision is to build a globally-competitive and resilient economy and to increase the quality of life for all citizens. The Vision proposes transforming Tanzania from a LDC to a middle-income country by 2025. Realising the vision will create the enabling environment for socio-economic development in Tanzania. The barriers identified to achieving the Vision's objective include limitation in good governance. Therefore, through Component 1, the interventions of the project are strongly aligned with the Vision.
Uganda	**Vision 2040** The Vision proposes a transition from a predominantly low-income to a competitive upper middle-income country within 30 years. To achieve the Vision, Uganda has to increase its GDP 30 times by 2040. One of the challenges that needs to be overcome before the Vision can be successful is the inadequate management of the environment and the adverse effects of climate change, which has resulted in limited implementation of adaptation and mitigation interventions. As part of the Vision, sectoral and cross-sectoral interventions will be developed and implemented to address the negative effects of climate change. Through Components 1, 2, 3 and 4, the project will be strongly aligned with the Vision.
Poverty reduction strategies	
Burundi	**Poverty Reduction Strategy (2009)** The Poverty Reduction Strategy was developed to promote macro-economic restructuring and growth. Under Component 1, the project will strengthen the capacity of the government institutions to address the effects of climate, in particular those adversely affecting water resources within the LVB. Under Component 3, interventions will be implemented to decrease the vulnerability of local communities to the effects of climate change and in particular, will strengthen local livelihoods under the future conditions of climate change.
Kenya	**Poverty Reduction Strategy (2004)** Under this strategy, economic growth and job creation were prioritised as a means of reducing poverty. The strategy focuses on several thematic areas including economic, social and political. Several means of achieving the goals of the Poverty Reduction

	Strategy have been proposed, including: i) fight poverty and income inequality; ii) set goals of structural transformation of Kenya's economy towards higher productivity; and iii) improve public infrastructure, in particular the transport network and electricity supply. In particular, through Components 1, 2 and 3, the project is aligned with the Poverty Reduction Strategy.
Rwanda	**Poverty Reduction Strategy (2013)** The Poverty Reduction Strategy aims to accelerate Rwanda's economic growth and decrease the incidence of poverty within the country. The Poverty Reduction Strategy includes a strong focus including climate change considerations at a national level and across all sectors to build a green economy and in particular, recognises that climate change adaptation and mitigation measures are to be included in the urbanisation process. The pillars identified to support the effective implementation of the strategy are: i) economic transformation; ii) rural development; iii) productivity and youth employment; iv) accountable governance. Therefore, through Components 1, 3 and 4, the project is aligned with the Poverty Reduction Strategy.
Tanzania	**National Strategy for Growth and Reduction of Poverty (2011)** The objective of the National Strategy for Growth and Reduction of Poverty is to increase the economic growth and productivity to reduce poverty through the: i) efficient use and development of factors of production (including human capital); and ii) strengthening and establishing well-functioning institutions and markets. The National Strategy for Growth and Reduction of Poverty also recognises that to promote food and nutrition security in Tanzania, crops and livestock need to be made resilient to the future effects of climate change. The project is therefore aligned with the National Strategy for Growth and Reduction of Poverty through the interventions of Component 3.
Uganda	**Poverty Reduction Strategy (2010)** The Poverty Reduction Strategy recognises the need to build the capacity of government authorities to identify the vulnerabilities to climate change and thereafter develop appropriate adaptation and mitigation measures. The barriers to reducing poverty include *inter alia*: i) weak public sector management and administration; ii) inadequate financing and financial services; iii) poor human resources; and iv) poor physical infrastructure. Through Component 1 and Component 5, the project is aligned with the Poverty Reduction Strategy.
Country Strategy Papers	
Burundi	**Country Strategy Paper (2012–2016)** The objectives outlined in the Country Strategy Paper are to increase economic growth and decrease the prevalence of poverty. The country's strategic framework comprises the strengthening of state institutions and infrastructure improvement. Through Components 1, 2 and 5, the project will improve institutional coordination and decision-making and is therefore aligned with the Country Strategy Paper.
Kenya	**Country Strategy Paper (2014–2018)** The objective of the Country Strategy Paper is to address Kenya's overarching strategic challenge in achieving economic growth. One of the main weaknesses identified in the Country Strategy Paper is its vulnerability to climate change. Therefore, through Components 1, 3 and 4, the project will be aligned with the Country Strategy Paper.

Rwanda	**Country Strategy Paper (2012–2016)** The Country Strategy Paper aims to enable Rwanda to its development vision for 2020. The pillars of the strategy include infrastructure development, enterprise and institutional development. National weaknesses identified in the Country Strategy Paper include: i) slow structural transformation; ii) limited infrastructure; iii) limited private sector development; and iv) high incidence of poverty and unemployment. In addition, the Country Strategy Paper notes an urgent need for environmental protection including climate-proofing existing infrastructure and sustainable natural resource management. Therefore, through Components 3 and 4, the project is aligned with the Country Strategy Paper.
Tanzania	**Country Strategy Paper (2011–2015)** The Country Strategy Paper promotes the creation of an enabling environment to realise the 2025 national development vision. In collaboration with the Norwegian Government, the Tanzanian Government is developing a climate change adaptation and mitigation plan to address the effects of rising temperatures, recurrent droughts, desertification and reduced water volume in lakes. Therefore, through Components 2, 3 and 4, the project is aligned with Country Strategy Paper.
Uganda	**Country Strategy Paper (2010–2015)** By promoting the achievement of sustainable development goals through economic growth, the Country Strategy Paper outlines an approach to alleviate poverty. The approach outlined in the Country Strategy Paper includes the protection and sustainable use of water resources to avoid any potential conflicts and to reduce vulnerability to climate change. The sustainable use of water resources is to be achieved through the decentralisation of capacities within the government and adequate financing. Therefore, through Components 1, 3 and 4, the project is aligned with the Country Strategy Paper.
REGIONAL	
Sustainable Development Goals (Kenya, Tanzania and Uganda)	The Sustainable Development Goals (SDG) take a broad approach on environmental sustainability and have been adopted by Kenya, Uganda and Tanzania. The project will contribute to the following SDGs: • SDG 5 – Achieve gender equality and empower all women and girls, by promoting gender equity throughout the project and targeting women in specific project activities. • SDG 6 – Ensure availability and sustainable management of water and sanitation for all, by implementing EbA interventions in project sites within the LVB. • SDG 13 – Take urgent action to combat climate change and its impacts, specifically: o 13.1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters through Components 1 and 2; and o 13.2. Integrate climate change measures into national policies, strategies and planning through Components 1 and 2. • SDG 15 – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat

	desertification, and halt and reverse land degradation and halt biodiversity loss through the implementation of EbA and other adaptation practices.
4th East African Community Development Strategy (Burundi, Kenya, Rwanda, Tanzania and Uganda)	The 4th East African Community Development Strategy (EACDS) outlines broad strategic goals of the EAC as well as specific targets to promote infrastructure development and economic growth. Some of the major challenges to achieving the goals of the 4th EACDS include *inter alia:* i) inadequate infrastructure; ii) institutional limitations; iii) inadequate national level capacities to implement regional policies. In addition, the 4th EACDS includes an emphasis on reducing or mitigating the negative effects of climate change on agriculture and food security. Through Outputs 1.1, 2.1, and 3.2 in particular, the project is aligned with the EACDS. That is, the objectives of the 4th EACDS listed above are supported by the following activities: i) a strengthened institutional coordination mechanism between regional policy- and decision-makers; ii) the tailoring and delivery of climate information packages for long-term planning to policy and decision-makers in regional organisations, as well as technical staff in national ministries within the LVB; and iii) the building of capacity and training for relevant organisations ensuring a proper understanding and dissemination of the climate information delivered through the information platform.
Nile Basin Cooperative Framework (Burundi, DRC, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda)	This framework was established under the Nile Basin Initiative (NBI) and is a partnership between ten riparian states including Burundi, DRC, Eqypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda. The framework promotes the sustainable use of natural resources within the Nile River Basin, including under the conditions of future climate change. Therefore, by strengthening the regional coordination of transboundary water management (Component 1), the project is aligned with the NBI.
Strategic Action Plan for the Lake Victoria Basin (Kenya, Uganda, Tanzania, Burundi and Rwanda)	The objective of the Strategic Actions Plan (SAP) for the LVB is to promote integrated management and sustainable development within the LVB. It provides a regional framework with a set of national and regional actions to achieve the objective by the partner states. Several principles underpin the plan, including *inter alia*: i) sustainable development whereby the all activities implemented and decisions made must support the rational utilisation of resources and preserve the rights of future generations to a viable environment; ii) an integrated approach to development and environmental planning. 18 Key Transboundary Issues (KTIs) were identified in the SAP, including *inter alia:* i) climate change and water balance; ii) fisheries; iii) conflicting and inadequate policies, laws, law enforcement and institutional frameworks on natural resource management and utilisation; iii) inefficient and poor land use, exploitation of natural resources and spatial planning; iv) inadequate environmental governance and community involvement; and v) institutional management structures. A strategy has been developed to address each of the KTIs identified in the SAP. Through activities under Components 1, 2, 3 and 4, the project is aligned with the SAP. These activities include: i) strengthening the institutional coordination mechanism and supporting the CCTWG to plan and implement climate-

	resilient approaches to transboundary water catchment management; ii) providing training on climate change, climate change adaptation and water management at national workshops; iii) delivering climate information for long-term planning to policy- and decision-makers in regional organisations as well as technical staff in national ministries within the LVB; and iv) planning and implementing water conservation practices, climate-smart agricultural techniques and EbA activities with local communities.

F. Project alignment with technical standards

Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

The project is aligned with the requirements of the March 2016 Revision of the Environmental and Social Policy (ESP) of the Adaptation Fund (see Section L). In addition to complementing the efforts of the LVBC to improve regional transboundary water catchment management, the project will increase regional resilience to climate change in the LVB. The Adaptation Fund-accredited Implementing Agency, UNEP, together with the LVBC and relevant national partners, will ensure that the project follows procedures outlined in the ESP. This includes the requirement that project activities funded by the Adaptation Fund reflect local circumstances and needs and draw upon national actors and capabilities.

In addition, the project's activities will be validated by national project partners, including *inter alia:*

- Ministry of Water, Environment, Lands and Urban Planning (Burundi);
- Ministry of Environment and Natural Resources (Kenya);
- Ministry of Natural Resources (Rwanda);
- the Vice-President Office (Tanzania); and
- Ministry of Water and Environment (Uganda).

G. Project duplication

Describe if there is duplication of project/programme with other funding sources, if any.

The project will complement current projects within the LVB. In particular, three projects have been identified with which the proposed project will be complementary. Brief outlines of these projects are provided below. Preliminary discussions were held with the teams of current projects during the development of the Concept Note and the Full Proposal. Furthermore, during the development of the full project proposal, the team of the proposed project will work closely with projects listed below – as well as other relevant initiatives – to identify the best possible opportunities for enhancing complementarity. In addition to a brief overview of each project, justification is provided for why the proposed AF project will not be a duplication of the respective projects' efforts.

The **Lake Victoria Region Water and Sanitation Initiative II** (LVWATSAN, 2009–present; total budget of US$29 million) is being implemented by five national agencies under the LVBC and aims to "make a substantial and rapid contribution to the achievement of internationally agreed water and sanitation goals in secondary towns in the Lake Victoria region in East Africa".

Specific objectives of LVWATSAN include: i) promote pro-poor water and sanitation investments in the secondary urban centres in the Lake Victoria Region; ii) facilitate realisation of upstream water sector reforms at the local level in the participating urban centres; and iii) reduce the environmental impact of urbanisation in the LVB. The proposed project will avoid duplication of LVWATSAN's efforts as it will focus specifically on the regional management of water resources (Component 1) and by implementing activities to promote improved water quality and accessibility in rural areas (Component 3). This is in contrast to the LVWATSAN's focus on urban areas. In addition, the proposed project will improve transboundary water management with a specific focus on the current and future effects of climate change – a consideration that is not central to the objectives of LVWATSAN II. Therefore, in addition to avoiding duplication of efforts, the proposed project will share lessons on climate change adaptation with the project team of LVWATSAN II through frequent consultations that are envisioned during the development of the full project proposal.

Lake Victoria Environmental Management Programme II (LVEMP II, 2009–2017; total budget of US$254 million) is being implemented by the five EAC Partner Sates under APL 1 (i.e. Kenya, Tanzania and Uganda) and APL 2 (Burundi and Rwanda). The objectives of LVEMP II are to: i) improve the collaborative management of transboundary natural resources of the LVB among the Partner States; and ii) improve environmental management of targeted pollution hot-spots and selected degraded sub-catchments for the benefit of communities who depend on the natural resources of LVB. While the focus of both the proposed project and LVEMP II is on natural resources, the proposed project has a much clearer focus on water specifically. In addition, LVEMP II includes a focus on point source pollution control and prevention, while the proposed project does not address pollution specifically. Despite noting the importance of managing transboundary resources, LVEMP II does not include an integral focus on current and future climate change. Therefore, the proposed project – through its primary focus on climate change adaptation – will not only avoid duplication of efforts with LVEMP II, but will generate knowledge on how projects such as LVEMP II can include a climate change rationale in their planning. During the development of the full project proposal – and through frequent consultations with the project team of LVEMP II – the proposed project will identify opportunities to build on and complement the mechanisms established by LVEMP II, particularly by promoting improved natural resource management through enhanced regional management of transboundary water catchments.

The **Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development** (PREPARED, 2012–2016; total budget of US$40 million) aims to "strengthen the resilience and sustainability of East Africa economies, transboundary and freshwater ecosystems and communities." One of PREPARED's main objectives is to improve climate change adaptation technical capacity, policy leadership and action readiness of regional institutions. This improved action readiness of regional institutions is underpinned by access to reliable and timely climate information. Through Component 2, the proposed project's activities will both complement PREPARED and support increased effectiveness in regional policy and decision-making. As part of its work, PREPARED is currently developing a comprehensive Vulnerability Impact Assessment for the LVB, with a particular focus on the effects of climate change. To avoid duplication of efforts and enhance complementarity, the proposed project will build on the work of PREPARED by selecting project sites – for both Components 3 and 4 – based on PREPARED's vulnerability assessment. During the development of the full project proposal, close consultation with the PREPARED project will be undertaken to further identify opportunities for complementarity and to ensure that duplication of efforts is avoided.

H. Learning and knowledge management component of the project

If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

The knowledge management for the proposed Adaptation Fund (AF) project will consist of two outputs.

Under Output 5.1, a research forum will be established to promote LVB-wide collaboration between research initiatives, with a specific focus on adaptation to climate change and water catchment management. Academic institutions, including the Inter-University Council for East Africa, as well as technical experts in climate change adaption, will be included as participants. This forum will provide opportunities for researchers to plan interdisciplinary research projects, co-author scientific publications and establish links with policy and decision makers to share the results of their research. Knowledge sharing is also promoted through the Global Adaptation Network (GAN), Africa Adaptation Knowledge Network (AAKnet) and Africa Adaptation Initiative.

Under Output 5.2, awareness raising campaigns will be held to share knowledge on climate change adaptation and transboundary water management with regional and national policy- and decision-makers, as well as local communities within the LVB.

I. Consultative process

Describe the consultative process, including the list of stakeholders consulted, undertaken during project/programme preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

A wide range of stakeholders have been consulted during the preparation of the Concept Note and full Project Proposal for this project.

Importantly, the project's Executing Entity, the LVBC, was consulted through the iterative process of refining the project design. As a regional organisation, the LVBC is comprised of national representatives of the five LVB countries. Therefore, the LVBC is well-positioned to ensure that the project design is tailored to local requirements, benefits vulnerable groups and includes gender considerations.

In addition to the LVBC, representatives from national ministries in each of the five Partner States were consulted on numerous occasions and at various stages of project preparation to ensure that the project design meets the specific national circumstances of each country. These consultations included the National Designated Authority (NDA) in each Partner State, and the National Implementing Entity (NIE) in Kenya and Rwanda. The details of these consultations are further described below.

A regional stakeholder engagement workshop was held in Nairobi on 7–8 June 2016. Representatives from each Partner State, LVBC, UNEP, relevant regional organisations – e.g. IGAD Climate Prediction and Applications Centre (ICPAC) – NGOs and other relevant ongoing projects – e.g. PREPARED – attended the meeting. During the meeting, the overall design of the project was discussed as well as complementarities with ongoing initiatives. In addition, arrangements for the regional implementation of the project were agreed. The results

of these consultations were used to revise and update the logical framework of the AF project. See Annex 1 for a full list of participants and a summary of the discussions.

Following the regional workshop, national consultations were held in each Partner State. For these national consultations, a day-long workshop was convened with representatives from relevant national ministries and NGOs. Representatives from the LVBC and UNEP were also in attendance. These workshops were held on:

- 8 July 2016 – Tanzania;
- 11 July 2016 – Rwanda;
- 12 July 2016 – Burundi;
- 14 July 2016 – Kenya; and
- 15 July 2016 – Uganda.

The results of these consultations were used to further revise and update the logical framework of the AF project. In addition, national arrangements for the implementation of the project were agreed. See Annex 1 for a full list of participants and a summary of the discussions.

A final regional validation workshop was held in Nairobi on 26 July 2016. This workshop was attended by representatives from each Partner State, LVBC and UNEP. During the workshop, the overall design of the project was validated. See Annex 1 for a full list of participants and a summary of the discussions.

J. Funding justification

Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

Component 1: Improving regional management of a transboundary water catchment

Baseline scenario (without AF resources)

The LVBC is mandated to support partnerships between local communities in the LVB with the EAC and development partners. The focal areas of the LVBC relevant to the project include *inter alia:* i) coordination of the policies and laws applicable to Lake Victoria and its catchment area; ii) environmental management of Lake Victoria; iii) management and conservation of aquatic resources; and iv) economic activities, including the development of fishing, industry, agriculture and tourism. To achieve its mandate, the LVBC coordinates activities and shares information with a number of EAC ministries and development organisations. Therefore, the LVBC has established a number of partnerships with governments and development agencies within the EAC[107] as well as undertaken activities including *inter alia*: i) building capacity within the Lake Victoria Development Programme (LVDP, 2001)[108]; and ii) supporting the development of a MoU between the Republics of Burundi and Rwanda and the EAC in 2007. Despite the noteworthy work of the LVBC, climate change considerations have not been thoroughly incorporated into coordinating mechanisms, particularly with regards to transboundary water catchment management. Therefore, the mainstreaming of climate change adaptation in plans, strategies and policies in the LVB has been limited. Without incorporating climate change

[107] For example, the World Bank, WWF, International Union for the Conservation of Nature and the International Centre for Research in Agroforestry.
[108] For further information on the LVDP, see: http://www.eac.int/index.php?option=com_content&id=43&Itemid=120&limitstart=1

considerations into regional frameworks, water resources within the LVB will be increasingly affected by future climate change, including increased mean annual temperatures and increased frequency and intensity of droughts.

Additionality (with AF resources)

AF resources will be used to both: i) strengthen the institutional coordination mechanism guiding transboundary water management; and ii) to increase regional and national capacity to manage transboundary water catchments, with a particular focus on climate change. At a regional level, organisations to be targeted by the project interventions will include the: i) LVBC; ii) CCTWG; iii) EAC Climate Change Unit; iv) Lake Victoria Regional Local Authority Cooperation; and the v) Joint Technical Committee of the Mara River Basin. At a national level, organisations to be addressed by the project will include the: i) Ministry of Water, Environment, Lands and Urban Planning (Burundi); ii) Ministry of Environment, Water and Natural Resources (Kenya); iii) Ministry of Lands, Environment, Forestry, Water and Mines (Rwanda); iv) Office of the Vice President (Tanzania); and v) Aid Liaison Department (Uganda). Through the improved institutional coordination mechanism, AF resources will improve the regional planning and management of transboundary water catchments under the future conditions of climate change.

Component 2: Climate information dissemination

Baseline scenario (without AF resources)

Owing to the influence of rainfall on water volume within the LVB, accessing accurate and timely climate information has been identified[109] as a critical service to: i) improve the safety of the local fishing community[110]; and ii) allow for long-term planning to improve resilience to climate change in sectors such as agriculture, hydropower and water management. Therefore, there are a number of current EWS and climate-monitoring projects and initiatives in the LVB, including *inter alia:* i) Adaptation to Climate Change-induced Water Stress in the Nile Basin (2010)[111]; ii) Developing a Methodology, Using Tools and Decision Support Systems, to Incorporate Floods and Droughts into IWRM in Transboundary Basins (2014)[112]; and iii) the International Strategy for Disaster Reduction: Platform for the Promotion of Early Warning (2006)[113].

While it is encouraging that a number of different climate-monitoring initiatives are active in the LVB, limited coordination between these initiatives limits the opportunities for knowledge sharing. In particular, the assimilation of climate information from different initiatives and the inclusion of this information into regional strategies and policies is currently inadequate. This limited coordination prevents the effective use of climate information to support the local fishing

[109] Climate Modeling Laboratory. 2011. Enhancing safety of navigation and efficient exploitation of natural resources over Lake Victoria and its basin by strengthening meteorological services on the lake. Department of Marine, Earth, and Atmospheric Sciences. Raleigh, USA.
[110] Between 3,000 and 5,000 deaths occur annually on Lake Victoria as a result of navigation incidents caused by strong winds and waves.
[111] For further information on the project Adapting to climate change induced water stress in the Nile River Basin, see: http://www.unep.org/climatechange/adaptation/EbA/NileRiverBasin/tabid/29584/Default.aspx
[112] For further information on the project Developing a Methodology, Using Tools and Decision Support Systems, to Incorporate Floods and Droughts into IWRM in Transboundary Basins, see: http://www.iwa-network.org/project/floods-and-droughts-management-tools
[113] For further information on the International Strategy for Disaster Reduction: Platform for the Promotion of Early Warning, see: http://www.unisdr.org/2006/ppew/

community[114] and important economic sectors – such as agriculture, hydropower and water management – to adapt to climate change.

Additionality (with AF resources)

AF resources will be used to improve the collection and delivery of climate information in the LVB. Specifically, the project's activities will develop a platform for the collection of climate data across the LVB, guided by the CCTWG. This regional climate information will be analysed and tailored to the requirements of end-users in the LVB, including regional and national policy- and decision-makers, technical staff in national ministries and local communities. By improving the accuracy and delivery of climate information, AF resources will be used to improve seasonal and long-term planning for transboundary water catchment management and climate change adaptation in the LVB. Thereby increasing the adaptive capacity of fishing communities and the resilience of important economic sectors such as agriculture, hydropower and water management.

Component 3: Regional approach to climate change adaptation in vulnerable communities

Baseline scenario (without AF resources)

Local communities in the Lake Victoria Basin are vulnerable to climate change, including increased frequency and intensity of droughts and an increased variability in rainfall patterns (see Part I, Project/Programme Background and Context for further details). In particular, vulnerable communities[115] are exposed to several negative effects of climate change, including *inter alia*: i) reduced farming productivity; ii) reduced livestock productivity; and iii) decreased availability of fish. The productivity of livelihoods of local communities within the LVB – particularly those underpinned by fishing and agriculture – will be reduced by these negative effects of climate change. In addition, non climate-related challenges facing vulnerable communities within the LVB include: i) limited water availability; and ii) poor water quality. Both non-climate related challenges and the negative effects of climate change are expected to worsen under the future conditions of climate change.

Additionality (with AF resources)

AF resources will be used to implement on-the-ground activities to promote adaptation to climate change. Specifically, a vulnerability assessment is currently being undertaken through PREPARED to identify project sites in which communities are particularly vulnerable to the effects of climate change. Three distinct categories of adaptation interventions will be implemented at these sites, namely: i) water conservation practices, including rainwater harvesting; ii) climate-smart agriculture; and iii) EbA activities.

Water conservation practices – for example, micro-scale water harvesting infrastructure – will increase water availability to local communities and reduce their vulnerability to future droughts. Climate-smart agriculture – for example, adopting drought-tolerant and early maturing plant varieties – will maintain agricultural productivity under the conditions of increased mean annual

[114] Between 3,000 and 5,000 deaths occur annually on Lake Victoria as a result of navigation incidents caused by strong winds and waves.

[115] In areas including *inter alia* Rwegura River (Burundi), Chohoha Lake (Burundi and Rwanda), Yala Swamp (Kenya), Mara River Basin (Kenya and Tanzania), Nyabugogo Swamp (Rwanda), Mwanza Gulf (Tanzania), Sango Bay (Tanzania and Uganda) and Lake Nabugabo (Uganda).

temperatures and increased frequency and intensity of droughts. EbA activities, for example agroforestry and home gardens, will promote: i) soil stabilisation and ecosystem recovery; and ii) diversified livelihood opportunities. Therefore, through on-the-ground adaptation activities, the AF resources will increase the adaptive capacity of local communities within the LVB, and in particular will strengthen and diversify livelihood options.

Component 4: Community-based approaches to climate change adaptation

Baseline scenario (without AF resources)

Local communities in the LVB are vulnerable to the negative effects of climate change, in particular reduced water availability. In addition, there is limited funding, equipment and technical expertise for local communities to implement water harvesting and conservation practices. Under the future conditions of climate change – specifically increased mean annual temperatures and increased frequency and intensity of droughts – water availability for local communities will be further reduced, thus compromising the livelihoods[116] and well-being of community members.

Additionality (with AF resources)

AF resources will be used to implement a small scale community-based adaptation projects programme through a small grants modality. Criteria for selecting project proponents will focus on each project's efforts to: i) increase water conservation and management; ii) adopt an innovative and gender-sensitive approach to adaptation; and iii) design and implement the project activities within a local community. The AF resources will also support the provision of technical guidance and oversight. In addition to being a cost-effective approach to innovation – see Part II (B) and (D) – the small-scale projects programme will provide benefits that accrue from community-based initiatives, including *inter alia*: i) local ownership of project design and implementation; ii) inclusion of traditional knowledge and techniques; and iii) site-specific knowledge of the environmental and socio-political environment. To promote climate change adaptation at a regional level, successful projects will be upscaled through community organisations and district-level agencies. Therefore, AF resources will promote innovative approaches to climate change adaptation and reduce the vulnerability of local communities within the LVB to the effects of climate change.

Component 5: Knowledge management and learning

Baseline scenario (without AF resources)

Within the LVB, there are currently a number of projects and initiatives that address climate change adaptation and the management of transboundary water catchments. These projects and initiatives generate knowledge, both in the form of quantitative data and qualitative information. Collectively, the knowledge generated from these projects and initiatives represent a valuable resource for: i) technical staff in national government agencies; and ii) regional and national policy- and decision-makers. However, there is currently limited sharing and storage of this knowledge as a result of limited institutional coordination. Therefore, interventions focused on climate change adaptation and transboundary water catchment management are planned using a limited evidence-base. Consequently, the effectiveness of these interventions is compromised.

[116] For example, agriculture,

Additionality (with AF resources)

The AF resources will be used to strengthen knowledge management frameworks at a regional level within the LVB. To ensure that knowledge on climate change adaptation and transboundary water catchment management is shared effectively, the project interventions will promote the coordination of knowledge-generating initiatives across the LVB. By improving knowledge sharing and access, the AF resources will increase the evidence-base available for future initiatives that aim to promote climate change adaptation and improve transboundary water catchment management. By having access to an improved evidence-base, these future initiatives will increase adaptive capacity across the LVB. Furthermore, the AF resources will assist with promoting knowledge sharing through the GAN, AAknet and Africa Adaptation Network.

K. Project sustainability

Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

The project's sustainability will be supported through: i) emphasising the active participation of relevant regional[117], national[118] and community[119] stakeholders in decision-making and implementation of the project's activities; ii) strengthening institutional and technical capacity at regional, national and community levels to ensure that stakeholders have adequate knowledge and skills to maintain the benefits of the project's restoration interventions; and iii) raising the awareness of water conservation practices, climate-smart agricultural techniques and EbA activities at a local level.

Under Component 1, a strategy will be developed and implemented together with the LVBC and the CCTWG to strengthen and sustain the flow of information between climate information platforms, climate data-collecting projects and water catchment management experts. Furthermore, training will be provided to government ministries and agencies, the civil society and other private sector organisations on the management of climate-related challenges in transboundary water catchment management. Through promoting a collaborative approach to developing the strategic framework for transboundary water catchment management, and involving national ministries, the project's activities will ensure that institutional capacity is strengthened according to regional requirements. Therefore, regional support for both the strategic framework will be promoted, thereby increasing the sustainability of the project's activities.

Under Component 4, successful small-scale project proponents will be selected through a fair and transparent process. This transparency will promote community acceptance of the selection process and increase local support for successful applicants. By following a community-based approach, the small-scale projects will be implemented at a local level and benefits will accrue directly to surrounding communities. In addition, the call for project proposals will include an

[117] Regional stakeholders will include *inter alia*: i) CCTWG; ii) EAC Climate Change Unit; and iii) Lake Victoria Region Local Authority Cooperation.
[118] National stakeholders will include *inter alia:* i) the Ministry of Water, Environment, Lands and Urban Planning (Burundi); and ii) the Ministry of Environment, Water and Natural Resources (Kenya).
[119] Community-level stakeholders will include community leaders and participants in the project activities to be implemented under Component 3.

emphasis on the sustainability of the project, i.e. what mechanisms will be used to ensure that the project's activities can be undertaken once the small-scale grant funding has been expended. Mechanisms for this sustainability might include the provision of a service to local communities, the revenue from which can be used for purchasing inputs or maintaining project infrastructure. Similarly, a plan might be included to upscale the project activities as a service-provider to district authorities or private sector initiatives. Through the steps described above, project proponents will be incentivised to maintain small-scale project activities beyond the project implementation period. In addition, by increasing the technical capacity of successful project proponents – through increased access to resources and technical expertise – the small-scale projects programme will enable project proponents to oversee future, related initiatives.

The research forum established under Component 5 will see regional collaboration between research initiatives focused on climate change adaptation and water management. In addition to promoting research outputs, the forum will partner with institutions such as the CCTWG and Inter-University Council for East Africa. By supporting the development of long-term research partnerships and aligning research priorities with established regional institutions, the sustainability project activities under Component 4 will be promoted.

L. Environmental and social impacts and risks

Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

An overview of the environmental and social impacts and risks identified as being relevant to the project are summarised in Part III (C): Environmental and social risk management. Based on the summary table – see Table 7, Part III (C) – the project's expected categorisation is a Category B.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Project arrangements

Describe the arrangements for project/programme management at the regional and national level, including coordination arrangements within countries and among them. Describe how the potential to partner with national institutions, and when possible, national implementing entities (NIEs), has been considered, and included in the management arrangements.

Implementing Entity

As requested by the five Partner States of the LVB, **UNEP** will be the **Multilateral Implementing Entity (MIE)** for the AF project. UNEP has significant experience in implementing projects of this nature, with dedicated groups in Climate Change Adaptation and Terrestrial Ecosystems. UNEP is headquartered in Nairobi, Kenya, which will facilitate regular contact with the Executing Agency – the LVBC – that has its headquarters in Kisumu, Kenya. The following implementation services under the MIE modality will be provided by UNEP for the AF project:

- overall coordination and management of UNEP's MIE functions and responsibilities, and the facilitation of interactions with the AF Board and related stakeholders;
- oversight of portfolio implementation and reporting on budget performance;
- quality assurance and accountability for outputs and deliverables at the project development phase, during implementation and on completion;
- receipt, management and disbursement of AF funds in accordance with the financial standards of the AF;
- information and communication management, including maintaining Information Management Systems and specific project databases to track and monitor progress – financial and substantive – of project implementation;
- oversight and quality assurance of evaluation processes for project performance and ensuring that lessons learned/best practice are incorporated to improve future projects; and
- general administration and support costs including legal services, procurement and supply management, IT and human resource management.

Executing Entity

The **LVBC** will be the **Executing Entity** of the AF project. The LVBC has significant experience coordinating regional development projects, including the LVEMP I and II and LVWATSAN I and II. The LVBC will be responsible for:

- coordinating and managing the overall implementation of project outcomes and activities;
- monitoring and evaluating project outcomes and activities;
- regional knowledge management, communications and awareness raising;
- implementing the regional components of the project;
- disbursing funds to Partner States for the implementation of on-the-ground activities within those countries;
- providing technical oversight to all activities carried out within Partner States;
- managing centralised procurement of goods and services for the project; and

- ensuring the overall quality and timeous delivery of project outputs both regionally and within Partner States.

The LVBC will establish a Project Coordination Unit (PCU), which will be responsible for the day-to-day coordination of the project and for promoting and facilitating stakeholder engagement.

Project Coordination Unit (PCU)

The PCU will be housed within the offices of the LVBC in Kisumu, Kenya. The PCU will be comprised of a full-time Project Manager and a full-time Financial Assistant.

The **Project Manager (PM)** will be responsible for the overall management of the AF project. The PM will ensure that the project is run transparently and effectively in accordance with AF and UNEP guidelines and approved work plans and budgets. The PM will receive project support from a national financial manager as well as additional staff members within LVBC. The key functions of the PM will be:

- facilitating the day-to-day functioning of the project staff;
- managing human and financial resources in consultation with the Regional Policy Steering Committee (RPSC) to achieve results in line with the outputs and activities outlined in the project document;
- leading the preparation and implementation of annual results-based work plans and logical frameworks as endorsed by the management;
- coordinating project activities with related and parallel activities;
- monitoring project activities, including financial matters, and preparing monthly and quarterly progress reports, and organising monthly and quarterly progress reviews;
- supporting the RPSC and CCTWG in organising bi-annual meetings;
- coordinating the distribution of responsibilities amongst team members and organising the monitoring and tracking systems;
- reporting and providing feedback on project strategies, activities, progress and barriers to UNEP, PSC and project partners; and
- managing relationships with project stakeholders including donors, NGOs, government agencies and others as required.

See Annex 2 for abbreviated Terms of Reference (ToRs) for the PM.

Because many of the activities of the project involve procurement and sub-contracting, the recruitment of a dedicated **Financial Assistant** will be necessary in order to ensure that the PMU has the required capacity to manage finances as per UNEP and AF requirements. The financial assistant will be responsible for ensuring that the projects financial and administrative procedures comply with AF and UNEP guidelines. See Annex 1 for abbreviated ToRs for the Financial Assistant.

Climate Change Technical Working Group

An LVB **Climate Change Technical Working Group (CCTWG)**, specific to this project and with expertise in transboundary water catchment management, will be constituted. The LVB CCTWG will be constituted by members of the existing CCTWG with relevant experience and additional technical officers from other relevant ministries in Partner States. Technical officers from the LVBC and UNEP will also be included in the LVB CCTWG, as well as project managers from

ongoing projects in the LVB. The PCU will serve as secretariat to the LVB CCTWG. The LBV CCTWG will be responsible for: i) overseeing the implementation of project activities; ii) ensuring project activities meet the required technical standards and contribute to climate resilience; and iii) providing technical appraisals of project performance to the RPSC and Sectoral Council (SC).

Regional Policy Steering Committee

A **Regional Policy Steering Committee (RPSC)** will be established to oversee the management of the AF project. In addition, the RPSC will: i) undertake project assurance – monitoring and evaluation; ii) ensure performance improvement; and iii) ensure accountability and learning. The RPSC will comprise designated senior representatives – permanent secretaries – from relevant ministries[120] in each of the Partner Countries, as well as representatives from the LVBC. UNEP representatives may also be invited to attend RPSC meetings. The RPSC will approve annual work plans and procurement plans, and review project periodical reports as well as any deviations from the approved plans. The RPSC will meet bi-annually.

Sectoral Council

Sectoral Council (SC) meetings will be convened with high-ranking government officials from each of the five Partner States (ministers) to provide strategic guidance to the AF project. These meetings will also serve to promote political buy-in for the project and a regional approach to adaptation. Wherever possible, SC meetings to discuss the AF project will be coordinated with other SC meetings organized to discuss other matters within the LVB. The SC will meet bi-annually.

National project teams

National project teams will be established in focal ministries in each of the partner states. These focal ministries will be:

- Burundi – Ministry of Water, Environment, Lands and Urban Planning;
- Kenya – Ministry of Environment and Natural Resources;
- Rwanda – Ministry of Natural Resources;
- Tanzania – Vice-President's Office; and
- Uganda – Ministry of Water and Environment.

While coordinated by the focal ministry, the national project teams will include representatives from other relevant ministries, including the Ministry of East African Affairs[121], NDA and NIE where applicable[122]. The national project teams will be responsible for the implementation of on-the-ground interventions – Components 3 and 4 in particular – by local government authorities at project intervention sites within their respective countries. Each national focal team will nominate a national project coordinator. The national project coordinator will:

- coordinate the implementation of project outcomes and activities within her/his country;

[120] These could include the NDA and/or NIE.
[121] The Ministries of East African Affairs in particular will be important members of the national project teams as they are the designated ministry for all EAC communication.
[122] At the time of writing NIEs have been accredited in Kenya and Rwanda. In Kenya, the National Environment Management Authority (NEMA), within the Ministry of Environment and Natural Resources is the NIE. In Rwanda, the Ministry of Natural Resources is the NIE.

- prepare cash advance requests and requisitions for the procurement of goods and services at the national level;
- manage the procurement of goods and services required at the national level – using existing structures within her/his government;
- report on expenditure and progress to the LVBC; and
- monitor and evaluate project interventions at the national level.

A diagrammatic representation of the implementation modality is presented below.

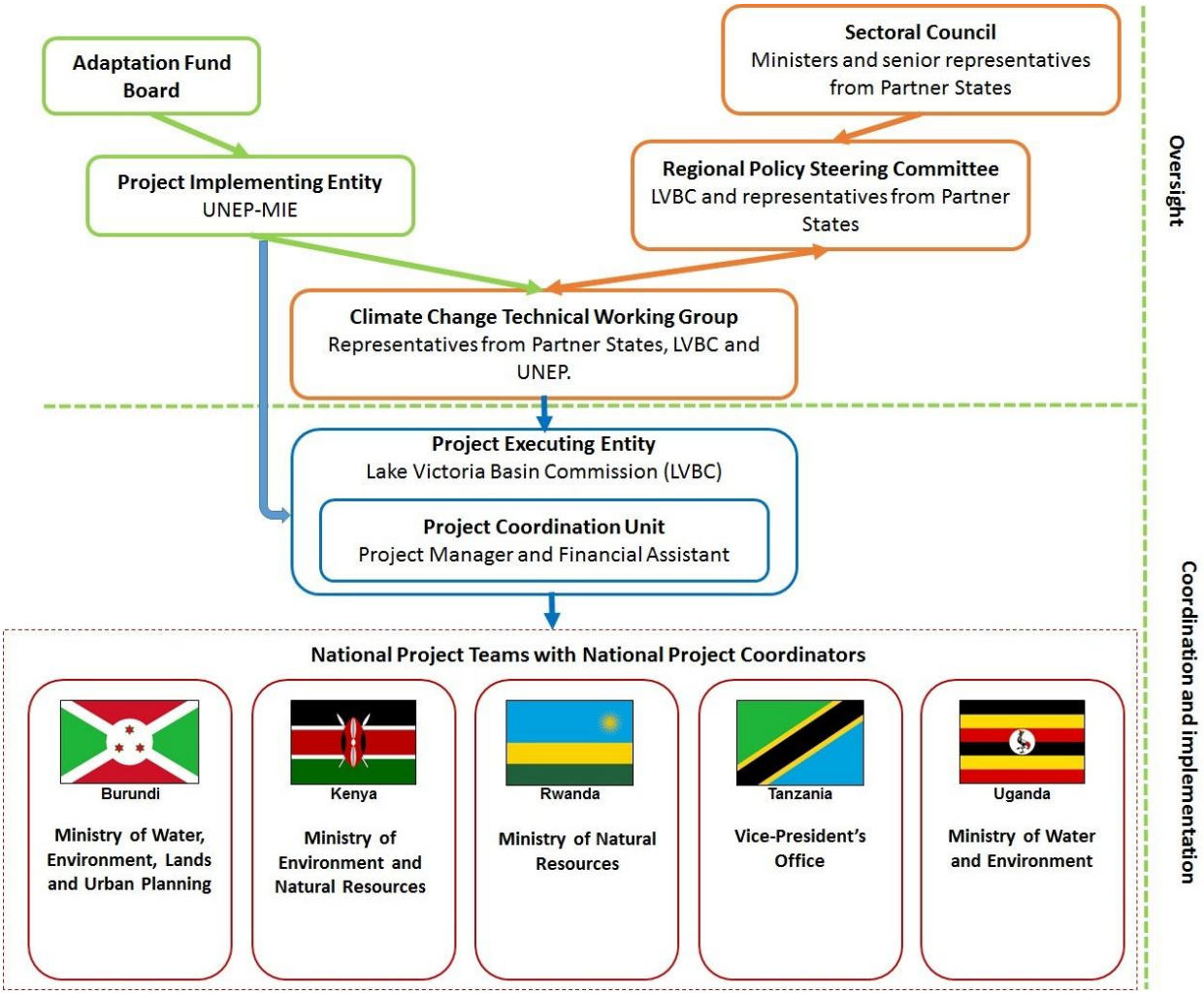

Figure 2. Proposed AF project implementation arrangements.

Anticipated execution costs

The execution costs of this project include standard project management planning and budgeting – see Table 5. This involves the hiring of personnel whose responsibility will be to coordinate and oversee the daily tasks of project implementation.

Table 5. Proposed AF project execution cost.

Execution activity	Role	US$
Project personnel	Project coordinator	133,200
	Financial assistant	72,000
Office supplies		6,145
Communication costs		7,200
Monitoring & Evaluation	Mid-term Evaluation	35,000
	Terminal Evaluation	40,000
	Audits	12,000
Inception and steering meetings	Regional Project Steering Committee meetings (initial meeting serves as Inception Workshop)	86,160
	Sectoral Council Meetings	0
TOTAL		**391,705**

B. Project financial risk management

Describe the measures for financial and project/programme risk management.

Table 6. Financial risk management measures for the proposed AF project, including risk ratings.

Identified risks	Risk rating	Mitigation measures
Current climate and seasonal variability and/or hazard events result in poor restoration results.	Medium	• Current climatic variability will be taken into account in the planning of the restoration process. • Drought- and flood-resilient species will be used. • Techniques to assist plant growth particularly in the seedling/sapling phases and to reduce risk of damage from climate change hazard impacts will be used. • Species will be planted in appropriate seasons to reduce risk of hazard impact. • Diversity in planted crops will reduce this risk.
High turnover of staff members in implementing agencies and within different countries may negatively impact on project deliverables.	Low–medium	• The project will build partnerships between government and non-government agencies to ensure continuity.
Trees planted by the project are cut down by the communities.	Medium	• Community involvement (i.e. 'bottom up' approach) and awareness raising will be undertaken to avoid this risk.
Water infrastructure constructed by the project may not conserve enough water to enable sustainable consumption and recharge.	Medium	• The project will ensure careful monitoring of the project indicators related to water supply.
Disagreement amongst stakeholders with regards to demonstration of site selection.	Low	• Intervention sites will be selected using an agreed upon list of criteria to ensure the selection is transparent and equitable. • There will be a participatory approach to the AF project, particularly with regards to intervention site selection.
Disagreement among stakeholders as regards to roles in the project.	Medium	• Stakeholder roles are detailed clearly in the stakeholder involvement plan. This plan will be presented and confirmed during the Inception Workshop.
Communities may not adopt activities during or after the AF project.	Medium	• The interventions will be institutionalised within LVBC to ensure sustainable delivery post-project implementation. • Capacity building and training of the CPA communities will be undertaken to improve their awareness and understanding of the benefits of the

		activities.
Loss of government support may result in lack of prioritisation of AF project activities.	Low	• Regular stakeholder consultation and involvement will be undertaken to ensure that government maintains its commitment and considers the AF project as a support to its forestry and agriculture programmes.
Institutional capacities and relationships are not sufficient to provide effective solutions to climate problems that are complex and multi-sectoral.	Medium	• Project design will include the development of institutional capacity. This will ultimately lead to the development of an appropriate institutional framework for analysing climate change impacts on food supply, altering policy and implementing interventions.
Capacity constraints of local institutions may limit the ability to undertake the research and interventions.	Medium	• Human resource capacity will be developed as required. • Collaboration and exchange between local institutions and international research institutes will be initiated. • A CTA will work closely with the AF PM to ensure timely delivery of project outputs.
Priority interventions implemented are not found to be cost-effective.	Low	• Cost-effectiveness is a core principle in the implementation of adaptation measures. Detailed information will be recorded regarding cost-effectiveness. This will be widely disseminated and will be of use to future adaptation initiatives in the LVB. • Interventions will be designed to ensure steady flow of water of good quality at reasonable cost, thus encouraging payment by consumers.
Lack of commitment/buy-in from local communities may result in failure of intervention sites.	Medium	• A stakeholder engagement plan will be developed during the inception phase. • Community stakeholders have been consulted during the CPA surveys leading into the Full Project Proposal development to ensure their buy-in into the AF project. • A bottom-up approach integrating the community into the AF project's development and implementation phases will be followed.
Communities may not adopt reforestation activities and other adaptation measures (e.g. rainwater harvesting, rainwater infiltration techniques).	Medium–high	• On-the-ground adaptation measures were selected through consultations with communities and hence are likely to be readily adopted. Throughout the project lifetime, the project will avoid a 'top down' approach and seek to create community ownership of all adaptations measures through participatory planning. • Raising the awareness of communities of the benefits associated with reforestation and adaptation measures is central to the activities piloted by the project. • The project team will build on experiences from other projects undertaking similar activities to promote good practice, and reduce this risk.

C. Environmental and social risk management measures

Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

The conformance and alignment with the ESP will be sought and managed through an ESP management plan (ESMP) throughout all stages of the project, namely: i) development of the full proposal; ii) inception; iii) implementation; and iv) monitoring and evaluation (M&E).

The expected category for the proposed AF project falls under category B. However, given the number of unidentified subprojects, and E&S screening system is necessary for each subproject. An ESMP is required for the proposed AF project.

Specific corrective and preventative actions are summarised according to the ESP principles in the Table 7 below.

Table 7. Summary of specific corrective and preventative actions according to the ESP principles.

Environmental and social principles		**Potential impacts and risks and corrective/preventative actions**
Principle	***Description***	
Compliance with the law	Projects should be in compliance with all applicable domestic and international law.	Risk: **Low** Potential impact: **High** The final project design will be compliant with all relevant regional and national laws. To ensure this, during the development of the full project proposal, both regional and national stakeholders will be consulted to ensure that all relevant legal requirements are met.
Access and equity	Projects should provide fair and equitable access to benefits.	Risk: **Low** Potential impact: **Low** The project design will ensure that project activities will not reduce or prevent communities at project sites from accessing basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions and land rights.
Marginalised and vulnerable groups	Projects should avoid imposing disproportionate adverse impacts on marginalised and vulnerable groups including children, women and girls, elderly, indigenous people, displaced people, refugees, people living with disabilities and people living with HIV/AIDS.	Risk: **Moderate** Potential impact: **Moderate/High** Without extensive consultation with marginal/vulnerable groups at the project sites, it is probable that project activities will exclude these marginal/vulnerable groups, therefore preventing these groups from accessing benefits – both in terms of resources and training. During the development of the full project proposal – wherever possible – marginal/vulnerable groups are will be consulted in the design of on-the-ground activities. Specifically, a transparent selection process will be undertaken which will comprise extensive and thorough consultation with the local communities and national authorities. In addition, the project design will ensure that benefits accruing from the project interventions – including the technology transfer, awareness-raising activities and infrastructure – reach relevant marginalized and vulnerable groups. Therefore, the project will ensure that the adaptive capacity of marginalized and vulnerable groups is enhanced.
Human rights	Projects should respect and where applicable promote international human rights.	Risk: **Low** Potential impact: **Moderate/High** To ensure that project interventions respect and adhere to the requirements of all relevant conventions on human rights, national and regional specialists will be consulted during the development of the full project proposal.
Gender equality and women's empowerment	Projects should be designed and implemented so that women and men: i) have equal	Risk: **Moderate** Potential impact: **Moderate/High** Without extensive consultation with women at the project sites and in planning for training and capacity-building activities, it is probable that

	opportunities to participate as per the AF gender policy; ii) receive comparable social and economic benefits; and iii) do not suffer disproportionate adverse effects during the development process.	the project will inadequately include women in both design and implementation of the project. This inadequate inclusion of women would be compounded as the negative effects are expected to be experienced disproportionately by women compared to men. The project design will therefore ensure that gender considerations are included in all project interventions, with a specific focus on activities on the ground (Components 3 and 4). In particular, all consultative and participatory processes will strive to include a representative sample of the larger community. During the development of the full proposal, gender experts, NGOs and local community organisations will be consulted to ensure that the project follows best practice guidelines.
Core labour rights	Projects should meet the core labour standards as identified by the International Labour Organisation.	Risk: **Low** Potential impact: **Moderate/High** Core labour rights will be respected and considered in the project design and implementation. In particular, national and regional stakeholders will be involved in the design of project activities to ensure that labour legislation is adhered to.
Indigenous peoples	The project should be consistent with the rights and responsibilities set forth in the UN Declaration on the Rights of Indigenous Peoples (and others).	Risk: **Moderate** Potential impact: **Moderate/High** Without extensive consultation with indigenous peoples at the project sites and in planning for training and capacity-building activities, it is probable that the project will inadequately include indigenous peoples in the design and implementation of the project. Therefore, the project's on-the-ground interventions will ensure that indigenous peoples benefit from the project's activities and that, where relevant, they are included in community consultation and participatory planning activities.
Involuntary resettlement	Projects should be designed and implemented in a way that avoids/minimises the need for involuntary resettlement.	Risk: **Low** Potential impact: **High** The project design does not include involuntary resettlement.
Protection of natural habitats	Projects should not involve unjustified conversion or degradation of critical natural habitats, including those that are: i) legally protected; ii) officially proposed for protection; iii) recognised by authoritative sources for their high conservation value, including as critical habitat; or iv) recognised as protected by traditional or indigenous local communities.	Risk: **Low** Potential impact: **High** By implementing water conservation practices, climate-smart techniques and EbA activities, the project will promote improved management of natural habitats. The downstream effects of these activities will include enhanced ecosystem functioning within protected areas.

Conservation of biological diversity	Projects should be designed and implemented in a way that avoids any significant or unjustified reduction or loss of biological diversity or the introduction of known invasive species.	Risk: **Low** Potential impact: **High** Without careful planning and mapping of project sites, on-the-ground adaptation interventions might adversely impact on local biodiversity. Therefore, during the process of site selection, a baseline assessment will be undertaken to assess site-specific risks to biodiversity. Final project sites will then be mapped using a participatory approach – which will include district authorities – to ensure that the project's activities do not result in the significant loss of biological diversity or the introduction of known invasive species.
Climate change	Projects should not result in any significant or unjustified increase in greenhouse gas emissions or other drivers of climate change.	Risk: **Low** Potential impact: **High** The project will contribute to climate change adaptation efforts in the LVB. Through Component 2, the project is designed to improve the delivery of climate information to regional and national policy and decision-makers. Through this improved delivery of information and the enhanced regional coordination included in Component 1, the project will address climate change adaptation planning at a regional level. Through Components 3 and 4, the project is designed to i) transfer technology to promote climate change adaptation to local communities, specifically water conservation practices, climate-smart techniques and EbA activities; and ii) promote the development of innovative, community-based projects to increase resilience to climate change. Therefore, the project will enhance the local-level capacity of local communities to adapt to climate change.
Pollution prevention and resource efficiency	Projects should be designed and implemented in a way that meets applicable international standards for maximising energy efficiency and minimising material resource use, the production of wastes and the release of pollutants.	Risk: **Low** Potential impact: **High** The project activities will result in minimal pollution. Rather, project design will ensure that all applicable international standards are met for maximizing material resource use and minimizing the production of wastes, and the release of pollutants. Where unforeseen risks are identified, regional and national experts will be consulted.
Public health	Projects should be designed and implemented in a way that avoids potentially significant negative impacts on public health.	Risk: **Low** Potential impact: **High** The project design will ensure that public health is not negatively affected by the project's activities. Indeed, through Component 3, reduced nutrient runoff into Lake Victoria and its tributaries will increase water quality and improve public health.

Physical and cultural heritage	Projects should be designed and implemented in a way that avoids the alteration, damage or removal of any physical cultural resources, cultural sites and sites with unique natural values recognised as such at the community, national or international level. Projects/programmes should also not permanently interfere with existing access and use of such physical and cultural resources.	Risk: **Low** Potential impact: **Moderate/High** Without thorough site selection, it is possible that the on the ground project interventions will negatively affect physical and cultural heritage. Through a baseline assessment and participatory mapping – which will include local communities and district level authorities – the likelihood of physical cultural heritage being affected will be minimised. If potential conflicts are identified during the development of the full project proposal, experts in regional and national culture and heritage will be consulted to ensure that the project design adheres to best practice guidelines.
Land and soil conservation	Projects should be designed and implemented in a way that promotes soil conservation and avoids degradation or conversion of productive lands or land that provides valuable ecosystem services.	Risk: **Low** Potential impact: **Moderate/High** The project will promote the conservation of soil and land resources. Specifically, through the implementation of EbA activities in Component 3 – including agroforestry – soil stability will be increased, the runoff of nutrients from topsoil will be reduced and the fertility of soil at project sites will be increased.

D. Monitoring and evaluation

Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

The proposed AF project will comply with formal guidelines, protocols and toolkits issued by the AF and UNEP. UNEP will develop a **Supervision Plan** during the project's inception phase which will be distributed and presented to all stakeholders during the Inception Workshop. The emphasis of the Supervision Plan will be on outcome monitoring, learning and sustainability and financial management. Project risks and assumptions will be regularly monitored by UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of the project's M&E will also be reviewed and rated as part of the PIR. Appropriate financial parameters will be monitored annually to ensure the cost-effective use of financial resources.

The AF project will undergo an independent **Mid-Term Evaluation** at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify corrective actions if needed. It will: i) focus on the effectiveness, efficiency and timeliness of project implementation; ii) highlight issues requiring decisions and actions; and iii) document initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for improved implementation during the final half of the project's term.

An independent **Final Evaluation** will take place three months prior to the project's end date in accordance with UNEP guidance. The Final Evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the Mid-Term Evaluation, if any such correction took place). The Final Evaluation will assess the impact and sustainability of results, including their contribution to capacity development and the achievement of adaptation benefits.

An **Annual Project Progress Review** (PPR) will be prepared to monitor progress made since the project's start and in particular for the previous reporting period. The PPR includes, but is not limited to, reporting on the following:

- progress on the project's objective and outcomes – each with indicators, baseline data and end-of-project targets (cumulative);
- project outputs delivered per project outcome (annual);
- lessons learned/good practice;
- annual Work Plan and expenditure reports; and
- project risk and adaptive management.

Periodic monitoring will be conducted through visits to the intervention sites undertaken by relevant staff from UNEP. Visits will be jointly conducted based on the agreed schedule to assess project progress first hand. A summary of the M&E costs is provided in Table 9:

Table 8. Monitoring and evaluation costs of the AF project. *Note: The costs indicated here do not include the costs associated with UNEP staff. Such costs will be covered by the MIE fee.*

Type of M&E activity	Responsible parties	Budget US$ (excluding project team time)	Time frame
Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance and risk management	Project Manager and Project team; UNEP; External consultants (i.e. evaluation team)	(supported from staff costs included in Project execution, and from MIE fee)	Quarterly, half-yearly and annually and as needed
Evaluations (Mid-term review and Independent terminal evaluations)	Project Manager and Project team; UNEP.	75,000	At midpoint and at end of project implementation
Audit	Project Manager and Project team; UNEP.	12,000	Annually at year end
Inception meeting, field visits and steering committee meetings	Project Manager and Project team; UNEP.	86,160	Inception meeting within first 2 months and bi-annual PB meetings (and sub-committee meetings)
TOTAL indicative cost		US$ 173,160	

E. Results framework

Include a results framework for the project/programme proposal, including milestones, targets and indicators.

Table 9. Results framework with indicators to output level, including baseline, project targets, sources of verification and assumptions.

Expected outcome/outputs	Outcome/output indicator	Baseline	Target	Sources of verification	Assumptions
Outcome 1: Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.	**No. of staff trained to respond to, and mitigate impacts of, climate-related events (gender disaggregated).**	**0**	**By the end of the project, at least 20 staff (of which at least 50% are women) trained on climate change adaptation and water catchment management during regional workshops.** **By the end of the project, at least 100 staff (of which at least 50% are women) trained on climate change adaptation and water catchment management during national workshops.**	**Attendance registers from training workshops. Workshop reports. Interviews with selected staff members of relevant ministries.**	**Training workshops provide staff with the capacity to integrate climate resilience into transboundary water catchment management.**
1.1 Strengthened institutional coordination mechanism to sustain a climate-resilient approach to water catchment management.	Number of meetings of the CCTWG.	2 meetings per year.	2 meetings of the CCTWG are held per year.	Meeting reports, monitoring and evaluation reports; annual workplans, meeting minutes and reports.	Institutions, government ministries and agencies are committed to participating in and addressing the impacts of climate change, with water and water catchment management central to the adaptation pathway for the LVB.

1.2 Training provided to government ministries and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment management.	See Outcome 1 indicator.				
Outcome 2: Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.	**Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis.**	**Policy- and decision-makers in the five Partner States receive regional forecasts from ICPAD, FEWSNET and RCMRD).** **There is limited delivery of climate information to local communities.**	**By the end of the project, policy- and decision-makers in each pilot country receive down-scaled national climate information every quarter.** **By the end of the project, local communities in the project interventions sites receive tailored climate information packages.**	**Climate information packages, interviews with government and local communities.**	**Existing climate information producers are committed to participating in the development and implementation of regional climate information systems specifically relating to transboundary water catchment management.**
2.1 Climate information dissemination mechanism strengthened to deliver climate information to be used in seasonal and long-term planning.	See Outcome 2 indicator				
2.2 Climate information and forecasts delivered to national policymakers, LVBC technical officers and local communities in tailored media/information products to guide both operational and long term strategic planning.	Number of staff members trained on downscaling regional climate information to the national level.	0	At least 25 (5 per Partner State) staff members trained on downscaling regional climate information to the national level.	Attendance registers from training workshops. Workshop reports. Interviews with selected staff members of relevant ministries.	Trainees leave training with improved capacity. Representatives of the national meteorological agencies are committed to a minimum of a two year contract following training and to train new members.
Outcome 3: Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.	**Number of people practicing climate change adaptation technologies.**	**0**	**At least 500 people (100 per intervention site) are practicing climate change adaptation technologies.**	**Registers of project beneficiaries at each site, site visits, community surveys.**	**Community members continue to practice adaptation technologies once they have been trained and provided with the necessary equipment.**

3.1 Project intervention sites and appropriate adaptation technologies identified.	Number of project intervention sites identified.	0	At least 1 intervention site identified in each Partner State.	Project reports; reports on community consultations/trainings and field visits.	All communities surrounding project intervention sites are committed to participating in project activities and taking up/adopting climate resilient techniques and practices.
3.2. Extension officers and local communities trained on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.	Number of community members at project intervention sites in each Partner State trained on climate change adaptation technologies (gender disaggregated).	0	At least 100 community members in each Partner State (of which 50% are women) trained on climate change adaptation technologies (500 people in total).	Project reports; monitoring and evaluation reports per intervention site; reports on community consultations, trainings and surveys; reports on site/field visits.	All communities surrounding project intervention sites are committed to participating in project activities, taking up/adopting climate resilient techniques and practices and providing training to other officers/community members.
3.3 Climate change adaptation technologies demonstrated at selected project intervention sites.	Number of households at project intervention sites in each Partner State benefitting from water conservation practices.	0	At least 100 households in each Partner State benefitting from water conservation practices (500 households in total).	Monitoring and evaluation reports per intervention site; reports on community consultations/trainings and field visits.	All communities surrounding project intervention sites are committed to participating in project activities and taking up/adopting climate resilient techniques and practices.
	Number of hectares of climate-smart agriculture at project intervention sites in each Partner State.	0	At least 200 hectares of climate-smart agriculture at project intervention sites in each Partner State (1000 hectares in total).	Monitoring and evaluation reports per intervention site; reports on community consultations/trainings and field visits, GIS.	All communities surrounding project intervention sites are committed to participating in project activities and taking up/adopting climate resilient techniques and practices.
	Number of hectares of land restored using an EbA approach at project intervention sites in each Partner State.	0	At least 100 hectares of hectares of land restored using an EbA approach at project intervention sites in each Partner State (500 hectares in total).	Monitoring and evaluation reports per intervention site; reports on community consultations/trainings and field visits, GIS.	All communities surrounding project intervention sites are committed to participating in project activities and taking up/adopting climate resilient techniques and practices.
Outcome 4: Regional resilience to climate change promoted through innovative, community-based projects.	**Number of beneficiaries of small-scale community-based projects.**	**0**	**At least 1000 people (200 per intervention site) benefit from small-scale community-based projects.**	**Registers of project beneficiaries at each site, site visits, community surveys.**	**Community members continue to practice adaptation technologies once they have been trained and provided with the necessary equipment.**

4.1 Small-scale projects funded to promote innovative approaches to climate change adaptation.	Number of small-scale projects that promote innovative approaches to climate change sites funded at intervention in each Partner State.	0	At least 4 small-scale projects Number of small-scale projects that promote innovative approaches to climate change sites funded at intervention in each Partner State.	Annual workplans; workshop reports; presentations of selected project proposals to be implemented; monitoring and evaluation reports per small-scale project per country.	All communities surrounding project intervention sites and those with small-scale projects are committed to participating in project activities, taking up/adopting climate resilient techniques and practices and providing training to other community members.
Outcome 5: Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.	No. of news outlets in the local press and media that have covered climate change adaptation in relation to transboundary water catchment management in the LVB.	0	At least 15 news outlets in the local press and media that have covered climate change adaptation in relation to transboundary water catchment management in the LVB.	Reports and training materials; campaign and exhibition reports; monitoring and evaluation reports; newspaper articles, news stories, television reports, radio interviews.	Awareness raising campaigns will recruit more community members for training. Both community members and relevant national and regional stakeholders will be committed to adopting climate-resilient transboundary water catchment management mechanisms. Involvement in the implementation of the project interventions and ongoing communication on the expected benefits of climate-resilient transboundary water catchment management for local communities will result in long-term support of the project and adoption of new knowledge, skills and practices in water management systems.

5.1. A forum established to promote the collaboration of research initiatives across the Lake Victoria Basin, with a focus on adaptation to climate change.	Establishment of a research forum for the LVB.	0 (or limited).	One research forum for the LVB established.	Meeting/workshop reports; minutes from forum meetings.	All representatives in the forum (public institutions, NGOs and resource users etc.) are dedicated to developing, adopting and implementing interdisciplinary approaches to climate resilient techniques and practices. Representatives will be willing to adopt a partnership approach and work collaboratively to plan and implement lclimate-resilient interdisciplinary approaches and interventions in the LVB.
5.2. Awareness-raising campaign to share lessons learned with stakeholders, ranging from policy- and decision-makers to vulnerable communities in the Lake Victoria Basin.	Number of exhibitions to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through the project.	0	At least 2 exhibitions to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through the project.	Exhibition materials, photographs, reports.	International cliamte change events will be organised during the lifespan of the project.

F. Project alignment with AF results framework

Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund.

Table 10. Proposed AF project alignment with the AF Results Framework.

Project Objective(s)[123]	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Reduce vulnerability to the negative effects of climate change in the five Lake Victoria Basin countries, namely Burundi, Kenya, Rwanda, Tanzania and Uganda, by building climate resilience	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	$5,000,000
Project Outcome(s)	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
1. Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.	Output 2.1: Strengthened capacity of national and regional centres and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events	490,000
2. Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.	Outcome 1: Reduced exposure at national level to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	450,000
3. Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.	Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change	1,700,000
4. Regional resilience to climate change promoted through innovative, community-based projects.	Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change	1,250,000
5. Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.	Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.2 No. of news outlets in the local press and media that have covered the topic	318,489

[123] The AF utilised OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

G. Budget

Include a detailed budget with budget notes, broken down by country as applicable, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Table 11. Detailed budget for the proposed AF project, including budget notes.

Expected Outputs	Output budget	Activities	Inputs	Budget notes	Y1	Y2	Y3	Total amount (US$)
Component 1: Improving regional management of a transboundary water catchment								
Outcome 1: Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.								**490 000**
1.1. Strengthened institutional coordination mechanism to sustain a climate resilient approach to transboundary water catchment management.	300000	1.1.1. Strengthen – building on the stakeholder engagement strategy prepared by the CCTWG – and sustain the flow of information between the following: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy and decision makers.	Communication materials	1	5 000	5 000	5 000	15 000
			Communication costs	2	5 000	5 000	5 000	15 000
		1.1.2. Support meetings of the CCTWG to plan and implement climate-resilient approaches to transboundary water catchment management.	Regional meeting	3	80 000	80 000	80 000	240 000

		1.1.3. Undertake regional capacity building exercises in water catchment management in the context of climate change in organisations such as inter alia: i) LVBC; ii) CCTWG; iii) EAC Climate Change Unit; iv) Lake Victoria Region Local Authority Cooperation; and v) Joint Technical Committee of the Mara River Basin.	International capacity-building experts	4	4 000	4 000	4 000	12 000
			Materials and goods	5	6 000	6 000	6 000	18 000
1.2. Training provided to government ministries and agencies, civil society and the private sector to address climate change related challenges in transboundary water catchment management.	190000	1.2.1. Develop/revise training material on climate change adaptation and transboundary water catchment management.	International adaptation experts	6	5 000			5 000
			International water catchment management experts	7	5 000			5 000
		1.2.2. Provide training on climate change adaptation and water catchment management at the regional level to national government representatives from the climate change, environment, and water and local government sectors in each of the five Partner States.	International adaptation experts	6		2 500	2 500	5 000
			International water catchment management experts	7		2 500	2 500	5 000
			Regional workshops	8		40 000	40 000	80 000

		1.2.3. Provide training on climate change, climate change adaptation and water management at national workshops which will include civil society, NGOs and the private sector.	International adaptation experts	6		2 500	2 500	5 000
			International water catchment management experts	7		2 500	2 500	5 000
			National workshops	9		40 000	40 000	80 000
Component 2: Climate information dissemination.								
Outcome 2: Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.								**450 000**
2.1. Tailored climate information packages to guide both operational and long term strategic planning.	200000	2.1.1. Train representatives from the national meteorological agencies in each of the five Partner States on downscaling regional climate information to the national level.	Climate modelling experts	10	20 000	20 000	20 000	60 000
			National training workshops	11	40 000	40 000	40 000	120 000
		2.1.2. Develop tailored climate information packages for: i) policy- and decision-makers; and ii) local communities.	Downscaling software	12	20 000			20 000
2.2. Climate information dissemination mechanism strengthened to deliver climate information to national policymakers, LVBC technical officers and local communities.	250000	2.2.1. Identify cost-effective means of strengthening existing climate information dissemination mechanisms, including ICPAC, FEWSNET, RCMRD and DHI.	Regional workshop	13	40 000			40 000

		2.2.2. Strengthen existing climate information dissemination mechanisms – including the LVBC information hub – to develop an LVB specific platform for climate information.	Materials and goods	14	10 000	10 000	10 000	30 000
			Travel	15	10 000	10 000	10 000	30 000
		2.2.3. Deliver climate information for long term strategic planning to policy and decision makers in regional organisations as well as technical staff in national ministries within the LVB.	Communication costs	16	10 000	10 000	10 000	30 000
		2.2.4. Pilot innovative information-sharing mechanisms – such as the provision of climate information through mobile networks – to deliver climate information to communities in a locally relevant and accessible format.	Community information sharing	17	40 000	40 000	40 000	120 000
Component 3: Regional approach to climate change adaptation in vulnerable communities.								
Outcome 3: Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.								**1 700 000**
3.1. Project intervention sites and appropriate adaptation technologies identified.	55000	3.1.1. Apply findings/lessons learned from past and current LVBC programmes (LVWATSAN, LVEMP II, PREPARED Vulnerability Assessment) to identify potential project intervention sites.	National projects teams	18	10 000			10 000
		3.1.2. Conduct a stocktake of adaptation interventions detailed in existing national strategies and action plans, recommendations from other regional projects and findings of scientific research in the LVB to identify appropriate adaptation technologies to be implemented regionally.	Chief Technical Advisor	19	15 000	15 000	15 000	45 000

3.2. Extension officers and local communities trained on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.	145000	3.2.1. Train extension officers and local community members at selected intervention sites on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.	Adaptation training experts	20	20 000			20 000
			National community training workshops	21	50 000			50 000
		3.2.2. Establish demonstration sites for climate change adaptation technologies at selected intervention sites.	Demonstration sites	22		50 000		50 000
		3.2.3. Organise information exchange visits where people from communities surrounding the project intervention sites are exposed to the climate change adaptation technologies.	Exchange visits	23		25 000		25 000
3.3. Climate change adaptation technologies demonstrated at selected project intervention sites.	1500000	3.3.1. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Burundi.	Climate change adaptation technologies - Burundi	24	100 000	100 000	100 000	300 000
		3.3.2. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Kenya.	Climate change adaptation technologies - Kenya	25	100 000	100 000	100 000	300 000
		3.3.3. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Rwanda.	Climate change adaptation technologies - Rwanda	26	100 000	100 000	100 000	300 000

		3.3.4. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Tanzania.	Climate change adaptation technologies - Tanzania	27	100 000	100 000	100 000	300 000
		3.3.5. Implement climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA at the selected intervention sites in Uganda.	Climate change adaptation technologies - Uganda	28	100 000	100 000	100 000	300 000
Component 4: Community-based approaches to climate change adaptation.								
Outcome 4: Regional resilience to climate change promoted through innovative, community based projects.								**1 250 000**
4.1. Small-scale projects funded to promote innovative approaches to climate change adaptation.	1250000	4.1.1. Host workshops with communities at intervention sites selected in Component 3 to identify specific climate change impacts and appropriate community-based adaptation interventions.	Community workshops	29	50 000			50 000
		4.1.2. Provide training to local communities or relevant local-level government or NGOs on how to develop a project proposal and the necessary financial, administrative and monitoring procedures for a small-scale project.	Community training	30	50 000			50 000
		4.1.3. Review project proposals and select successful project proponents.	Chief Technical Advisor	31	15 000	15 000	15 000	45 000
		4.1.4. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Burundi.	Small grants Burundi	32		100 000	100 000	200 000
		4.1.5. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Kenya.	Small grants Kenya	33		100 000	100 000	200 000
		4.1.6. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Rwanda.	Small grants Rwanda	34		100 000	100 000	200 000

		4.1.7. Provide small grants to project proponents to implement small-scale, community-based adaptation projects in Tanzania.	Small grants Tanzania	35		100 000	100 000	200 000
		4.1.8. Provide small grants project proponents to implement small-scale, community-based adaptation projects in Uganda.	Small grants Uganda	36		100 000	100 000	200 000
		4.1.9. Undertake monitoring and evaluation of small scale projects to provide information for Outcome 5.	Travel	37	35 000	35 000	35 000	105 000
Component 5: Knowledge management and learning.								
Outcome 5: Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.								**318 489**
5.1. A forum established to promote the collaboration of research initiatives across the Lake Victoria Basin, with a focus on adaptation to climate change.	105000	5.1.1. Hold regional workshops with researchers and technical experts to plan interdisciplinary research projects on climate change adaptation and water catchment management.	Regional researcher workshop	38	30 000			30 000
		5.1.2. Establish a forum of researchers and technical experts working on climate change adaptation to coordinate climate change research initiatives across the LVB.	Communication costs	39	10 000	10 000	10 000	30 000
		5.1.3. Promote knowledge sharing through the Global Adaptation Network (GAN), Africa Adaptation Knowledge Network (AAKnet) and Africa Adaptation Initiative.	Materials and goods	40	15 000	15 000	15 000	45 000

5.2. Awareness raising campaign to share lessons learned with stakeholders, ranging from policy- and decision-makers to vulnerable communities in the Lake Victoria Basin.	213489	5.2.1. Develop a detailed communications strategy – building on the communication and outreach strategy prepared by the CCTWG – to share lessons learned from the project with relevant national and regional stakeholders through appropriate media.	Communication expert	41	15 000			15 000
		5.2.2. Produce awareness raising materials on water management and climate change adaptation.	Communication expert	41	10 000	10 000	10 000	30 000
			Materials and goods	42	10 000	10 000	10 000	30 000
		5.2.3. Undertake awareness raising campaigns for vulnerable communities to share lessons on water management and climate change adaptation.	Awareness-raising campaign	43	16 000	17 000	17 000	50 000
		5.2.4. Distribute awareness raising materials – translated into local languages where appropriate – to policy and decision-makers in national ministries and regional organisations to raise awareness on transboundary water management in the context of climate change and lessons learned from adaptation interventions demonstrated through Component 3 and 4.	Awareness-raising campaign	43	16 000	16 000	16 489	48 489
		5.2.5 Host exhibitions to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through Component 3 and 4.	Exhibitions	44		20 000	20 000	40 000
			TOTAL		**1 167 000**	**1 558 000**	**1 483 489**	**4 208 489**

Table 12: Budget notes

#	Description	Budget notes
1	Communication materials	Cost of communication materials, such as brochures, pamphlets and policy briefs, to sustain the flow of information between the following: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy and decision makers.
2	Communication costs	Cost of communication and meetings.
3	Regional meeting	Cost of LVB CCTWG meetings: $40,000 per meeting Flights: 20 x $700 = $14,000 DSA: 20 participants x $350 x 3 days = $21,000 Venue Hire: $5,000 Total cost: $40,000 x 2 per year x 3 years = $240,000
4	International capacity-building experts	International consultants to provide capacity-building services to regional institutions
5	Materials and goods	Materials and goods, such as computer hardware and software, required to strengthen the capacity of regional organisations to integrate climate change into transboundary water management.
6	International adaptation experts	International consultants to i) develop training material on climate change adaptation; and ii) deliver this training at both regional and national training workshops. Costs include travel and DSA.
7	International water catchment management experts	International consultants to i) develop training material on transboundary water catchment management; and ii) deliver this training at both regional and national training workshops. Costs include travel and DSA.
8	Regional workshops	Cost of regional training workshop: $40,000 per workshop (see budget note 3). Two training workshops, one in Year 2 and one in Year 3 will be organised. Total cost $80,000.
9	National workshops	Cost of a national training workshop: $8,000 per workshop. There will be one national workshop in each of the 5 Partner States during Year 2, and another workshop in each of the Partner States in Year 3. Total cost = $8,000 x countries x 2 years = $80,000.
10	Climate modelling experts	Regional climate modelling experts to provide training on downscaling regional climate information to the national level. Costs include professional fees, travel and DSA.
11	National training workshops	Cost of national training workshop: $8,000. Cost includes venue hire, printing costs and facilitator fees. One national training workshop in each pf the Partner States per year = $40,000 per year.
12	Downscaling software	Cost of software to perform the downscaling of regional climate information. For example, Geoclima.
13	Regional workshop	Cost of regional workshop: $40,000 per workshop Flights: 20 x $700 = $14,000 DSA: 20 participants x $350 x 3 days = $21,000 Venue Hire: $5,000 Workshop to bring together regional producers of climate information to identify cost-effective means of strengthening existing climate information dissemination mechanisms.
14	Materials and goods	Materials and goods required to strengthen existing climate information dissemination mechanisms.

15	Travel	Travel costs for project staff to provide technical assistance to strengthen existing climate information dissemination mechanisms. See also budget note 37.
16	Communication costs	Costs of printing and disseminating climate information to policy- and decision-makers.
17	Community information sharing	Cost to pilot innovative information-sharing mechanisms with local communities. For example, sending text notifications via mobile platforms.
18	National projects teams	$2000 per national project team ($10,000 total) to convene expert meetings and apply lessons learned to select project sites and interventions.
19	Chief Technical Advisor	Consultancy for an international consultant to perform the role of Chief Technical Advisor for the entire implementation of the project. In Component 3 the CTA will be responsible for undertaking a stocktake of regional and national assessment/strategies to identify the best-practice adaptation technologies to be applied throughout the LVB. See also budget note 31.
20	Adaptation training experts	Consultancy for adaptation experts to develop and deliver training on climate change adaptation technologies to local communities.
21	National community training workshops	Training workshops within targeted communities on adaptation interventions. $10,000 per country to run these workshops.
22	Demonstration sites	Costs of establishing demonstration sites within targeted communities for selected adaptation interventions. $10,000 per country.
23	Exchange visits	Cost of organising visits for neighbouring communities to the adaptation intervention demonstration sites. $5,000 per country.
24	Climate change adaptation technologies - Burundi	Cost of implementing water conservation practices, climate smart agricultural techniques and EbA at selected intervention sites in Burundi. Costs in include equipment, labour and maintenance of interventions. Cost estimated at:: $500 per household-scale water conservation technology (e.g. rainwater harvesting tank); $500 per hectare of climate-smart agriculture; and $1,000 per hectare of EbA/restoration.
25	Climate change adaptation technologies - Kenya	Cost of implementing water conservation practices, climate smart agricultural techniques and EbA at selected intervention sites in Kenya. Costs in include equipment, labour and maintenance of interventions. Cost estimated at: $500 per household-scale water conservation technology (e.g. rainwater harvesting tank); $500 per hectare of climate-smart agriculture; and $1,000 per hectare of EbA/restoration.
26	Climate change adaptation technologies - Rwanda	Cost of implementing water conservation practices, climate smart agricultural techniques and EbA at selected intervention sites in Rwanda. Costs in include equipment, labour and maintenance of interventions. Cost estimated at:: $500 per household-scale water conservation technology (e.g. rainwater harvesting tank); $500 per hectare of climate-smart agriculture; and $1,000 per hectare of EbA/restoration.
27	Climate change adaptation technologies - Tanzania	Cost of implementing water conservation practices, climate smart agricultural techniques and EbA at selected intervention sites in Tanzania. Costs in include equipment, labour and maintenance of interventions. Cost estimated at:: $500 per household-scale water conservation technology (e.g. rainwater harvesting tank); $500 per hectare of climate-smart agriculture; and $1,000 per hectare of EbA/restoration.

28	Climate change adaptation technologies - Uganda	Cost of implementing water conservation practices, climate smart agricultural techniques and EbA at selected intervention sites in Uganda. Costs in include equipment, labour and maintenance of interventions. Cost estimated at:: $500 per household-scale water conservation technology (e.g. rainwater harvesting tank); $500 per hectare of climate-smart agriculture; and $1,000 per hectare of EbA/restoration.
29	Community workshops	$10,000 per country to host community consultations to identify specific climate change impacts and appropriate community-based adaptation interventions.
30	Community training	$10,000 per country to train local communities and NGOs to develop small grant project proposals and manage small grant resources.
31	Chief Technical Advisor	Consultancy for an international consultant to perform the role of Chief Technical Advisor for the entire implementation of the project. In Component 4 the CTA will be responsible for: i) providing technical reviews of small grant adaptation project proposals; and ii) monitoring and evaluation of small grant projects. See also budget note 19.
32	Small grants Burundi	Provision of small grants to successful community-based adaption project proponents in Burundi. Estimated cost at $50,000 per small grant project.
33	Small grants Kenya	Provision of small grants to successful community-based adaption project proponents in Kenya. Estimated cost at $50,000 per small grant project.
34	Small grants Rwanda	Provision of small grants to successful community-based adaption project proponents in Rwanda. Estimated cost at $50,000 per small grant project.
35	Small grants Tanzania	Provision of small grants to successful community-based adaption project proponents in Tanzania. Estimated cost at $50,000 per small grant project.
36	Small grants Uganda	Provision of small grants to successful community-based adaption project proponents in Uganda. Estimated cost at $50,000 per small grant project.
37	Travel	Costs of travel for project staff to undertake monitoring and evaluation of small grant projects in each of the countries. See also budget note 15.
38	Regional researcher workshop	Cost of a regional workshop for climate change adaptation researchers.
39	Communication costs	Costs of communication for the research forum.
40	Materials and goods	Costs of producing knowledge products that will be distributed through regional networks.
41	Communication expert	Consultancy to: i) develop a communications strategy for the project; and ii) produce appropriate communication materials to be distributed through the awareness-raising campaign.
42	Materials and goods	Cost of communication materials for the awareness raising campaign, such as booklets, brochures, and posters.
43	Awareness-raising campaign	Cost of implementing the awareness-raising campaign, including translation of knowledge products into appropriate local languages.
44	Exhibitions	Cost of hosting exhibitions at international climate change events to showcase lessons learned through the project.

Table 13. Executing fee breakdown.

Execution activity	Role	US$	Note
Project personnel	Project coordinator	133200	a
	Financial assistant	72000	b

Office supplies		6145	c
Communication costs		7200	d
Monitoring & Evaluation	Mid-term Evaluation	35000	e
	Terminal Evaluation	40000	f
	Audits	12000	g
Inception and steering meetings	Regional Project Steering Committee meetings (initial meeting serves as Inception Workshop)	86160	h
	Sectoral Council Meetings	0	i
TOTAL		**391705**	

Table 14. Executing fee budget notes.

a	Salary for Project Coordinator (P3): $4,000 per month x 12 months = $48,000 x 3 years = $144,000
b	Salary for Financial assistant: $2,000 per month x 12 months = $24,000 x 3 years = $72,000
c	General office supplies = $170 per month x 12 months = $2,040 x 3 years = $6,120
d	Communication costs, including telephone, printing and internet: $200 per month x 12 months = $2,400 x 3 years = $7,200
e	Mid-term evaluation: $35,000
f	Terminal evaluation: $40,000
g	Audits: $4,000 per year x 3 years = $12,000
h	Cost of Regional project steering committee meetings: Participant flights: 10 permanent secretaries (2 per Partner State) x $600 per flight = $6,000 DSA: 10 Permanent Secretaries x $400 = $4,000 LVBC/EAC flights: 4 participants x $600 = $2,400 LVBC/EAC DSA: 4 participants x $350 = $4,200 Conference facility: 14 participants x $40 per day = $560 Total cost per meeting: $14,360 x 6 = $86,160
i	Costs covered by Partner States.

Table 15. Implementing Entity Fee.

Description	**Total**
Overall coordination and management	79 562
Oversight and management of project development and project implementation	100 333
Financial management, including accounting, treasury, grant and trust fund management	60 542
Information and communication management	21 741
Quality assurance including internal and external audits (Note 1)	38 812
Overall administration and support costs	90 715
Total	**391 705**

H. Disbursement schedule

Include a disbursement schedule with time-bound milestones.

Table 16. Disbursement schedule including milestones.

	Upon Agreement signature (US$)	**After Year 1 (US$)**	**After Year 2 (US$)**
Scheduled date (tentative)	January 2017	January 2018	January 2009
Project funds	1,167,000	1,588,000	1,483,489
Implementing Entity fee	108.618	145,011	138,076

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[124]

Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:

See Annex 3 for all endorsement letters.

Table 17. List of endorsements provided for the proposed AF project.

Burundi: *Mr. Anicet Nkurikiye, Adviser to the Minister Ministry of Water, Environment, Lands & Urban Planning*	Date: July, 22nd 2016
Kenya: *Mr. Charles T. Sunkuli, Principal Secretary, Ministry of Environment, Natura Resources & Regional Development Authorities*	Date: July, 28th 2016
Rwanda: *Ms. Fatina Mukarubibi, Permanent Secretary, Ministry of Natural Resources*	Date: July, 27th 2016
Tanzania: *Eng. Ngosi C.X. Mwihava, Deputy Permanent Secretary, Vice President's Office*	Date: July, 26th 2016
Uganda: *Mr. Keith Muhakanizi, Permanent Secretary/Secretary to the Treasury, Ministry of Finance, Planning and Economic Development*	Date: July, 26th 2016

6. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address.

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Mette L. Wilkie Director, Division of Environmental and Policy Implementation (DEPI)	
Date: *August 1 2016*	Tel. and email: +254 20 7624782 Mette.Wilkie@unep.org
Project Contact Person: Barney Dickson	
Tel. And Email: +254 20 762 3545 & Barney.Dickson@unep.org	

Annexes

List of Annexes

Annex 1	Stakeholder consultations
Annex 2	Terms of References (ToRs) for key project members
Annex 3	List of endorsements and endorsement letters

Annex 1: Stakeholder consultations

Annex 2: Terms of References (ToRs) for key project members

Terms of Reference for Project Manager (PM)

Scope of Work

The PM will lead the project team and provide overall operational management for the successful execution and implementation of the project. The PM has the daily responsibility for management, coordination and supervision of the implementation of the project and delivery of the results in accordance with the full project proposal and agreed work plans. The PM will be responsible for financial management and disbursements, with accountability to the government, and UNEP. The PM will report to the Regional Policy Steering Committee (RPSC).

The responsibilities of the PM will include the following.

- Oversee and manage project implementation, monitor work progress, and ensure timely delivery of outputs.
- Report to the LVBC and RPSC regarding project progress.
- Develop and facilitate implementation of a comprehensive monitoring and reporting system.
- Ensure timely preparation of detailed annual work plans and budgets for approval by the RPSC.
- Assist in the identification, selection and recruitment of staff, consultants and other experts as required.
- Supervise, coordinate and facilitate the work of the administrative/technical team (consisting of the assistant coordinator, finance/administration staff and national and international consultants).
- Control expenditures and assure adequate management of resources.
- Establish linkages and networks with on-going activities by other government and nongovernment agencies.
- Provide input to management and technical reports, and other documents as described in the M&E plan for the overall project. Reports should contain assessments of progress in implementing activities, including reasons for delays, if any, and recommendations on necessary improvements.
- Inform the LVBC and RPSC, without delay, of any issue or risk which might jeopardise the success of the project.
- Liaise and coordinate with UNEP on a regular basis.

Qualifications

- Master's degree in environment, natural resources management, agriculture or a closely related field.
- A minimum of 10 years' relevant work experience.
- Demonstrated solid knowledge of environment and ecological restoration, with an emphasis on water resources management.
- Demonstrated solid knowledge of climate change adaptation management techniques, practices and technologies.
- Experience in the public participation development process associated with environmental and sustainable development an asset.
- Experience in working and collaborating within governments an asset.
- Excellent knowledge of English, including writing and communication skills.

Reporting

The PM will be a staff member of LVBC and will report to the LVBC Deputy Executive Secretary. The PM will work closely with the RPSC, CTA and UNEP to ensure the availability of information on progress and performance in the implementation of the project.

Terms of Reference for Chief Technical Advisor (CTA)

Scope of Work

The CTA will develop the restoration and conservation agriculture protocols, as well as provide the PM with technical guidance on the implementation of the AF project. The position of CTA is likely to be filled by an international consultant.

The responsibilities of the CTA will include the following.

- Develop the technical climate change adaptation protocols specific to water catchment management.
- Provide quality assurance and technical review of project outputs.
- Undertake technical review of project outputs (e.g. studies and assessments).
- Assist in the drafting of ToRs for technical consultants.
- Supervise the work of consultants.
- Assist in monitoring the technical quality of project M&E systems (including annual work plans, indicators and targets).
- Conduct the financial administrative reporting and the PIR.
- Provide advice on best suitable approaches and methodologies for achieving project targets and objectives.
- Provide a technical supervisory function to the work carried out by national technical advisors, and consultants hired by the project.
- Assist in knowledge management, communications and awareness-raising.
- Facilitate the development of strategic regional and international partnerships for the exchange of skills and information related to climate change adaptation.

Qualifications

- At least an advanced post-graduate at or above M.Sc. level, in a relevant discipline, including climate change adaptation, botany/forestry/soil science, environmental management, natural resources management, agriculture, water resources or a related discipline.
- A minimum of five years' experience in a senior technical lead position with planning and management of environmental and/or natural resources management programmes in developing countries.
- A minimum of five years in a senior technical position involved in institutional strengthening and capacity building.
- Previous similar experiences in provision of technical support to complex projects.
- Experience working in the East African region would be an advantage.
- Good communication and computer skills.
- Fluent in spoken and written English.

Reporting

The CTA will report to the RPSC. The CTA will cooperate with the PM, Financial Assistant, other LVBC staff and UNEP task manager to ensure the availability of information on progress and performance in the implementation of the project. In the implementation of his/her duties, the CTA will work in close collaboration with the UNEP task manager, specifically in consultation for implementation and decision-making of the project.

Terms of Reference for Financial Assistant

Scope of Work

The responsibilities of the Financial Assistant will include the following.

- Standardise the finance and accounting systems of the project while maintaining compatibility with the government and UNEP financial accounting procedures.
- Prepare budget revisions of the project budgets and assist in the preparation of the annual work plans.
- Comply and verify budget and accounting data by researching files, calculating costs and estimating anticipated expenditures from readily available information sources, in particular partner agencies.
- Prepare status reports, progress reports and other financial reports.
- Process all types of payment requests for settlement purposes, including quarterly advances to the partners upon joint review.
- Prepare periodic accounting records by recording receipts, disbursements – ledgers, cash books, vouchers, etc. – and reconciling data for recurring or financial special reports, and assist in preparation of annual procurement plans.
- Undertake project financial closure formalities, including submission of terminal reports, transfer and disposal of equipment, processing of semi-final revisions and support professional staff in preparing the terminal assessment reports.
- Assist in the timely issuance of contracts and assurance of other eligible entitlements of the project personnel, experts and consultants, by preparing annual recruitment plans.

Reporting

The Financial Assistant will report to PM.

Annex 3: List of endorsements and endorsement letters

DRAFT

Regional Consultation workshop for the development of the Adaptation Fund (AF) Lake Victoria Regional Project Proposal

UN Gigiri Complex, Conference Room 13
7th and 8th June 2016
Nairobi, Kenya

Workshop Proceedings

Introduction

UNEP and the LVBC Secretariat in consultation with and endorsement of Lake Victoria Basin Partner States have developed a Pre-Concept and a Concept proposal for the Adaptation Fund Lake Victoria Basin Climate Change Adaptation project. The Adaptation Fund has cleared both stages of the proposal and requested UNEP to develop the project full proposal to be submitted. The Regional Consultation workshop for the development of the Adaptation Fund (AF) Lake Victoria Regional Project Proposal was held from the 7-8 June 2016 at the UN Gigiri complex in Nairobi, Kenya.

Please see **-** for List of workshop participants.

Workshop objectives

The United Nations Environment Programme (UNEP) and the Lake Victoria Basin Commission (LVBC) are convening this regional consultation workshop to get input from the Lake Victoria Basin countries and key stakeholders on issues related to adaptation gaps in the basin. The workshop will convene senior governments' officials for the governments of Kenya, Tanzania, Burundi, Rwanda and Uganda as well as various stakeholders working on the LVB. The participants are expected to provide input into the Adaptation Fund (AF) Regional Proposal development process for the lake basin. This workshop therefore provides an important opportunity and platform for the stakeholders to shape and provide guidance on planned adaptation activities for the proposed work on climate change

The expected outcomes of this regional consultation workshop will include:

- Agreement on the main components and the expected outcome areas, with indicative activities where possible;
- A draft regional work plan for the project;
- A draft log frame for the proposal.

Workshop Programme

The workshop was held over two days, and conducted in English and was officially opened by Mr. Stephen King'uyu, Representative of the Kenyan Government. The opening was followed by welcome remarks from UNEP and LVBC representatives. The workshop was organized in session formats: a) Presentations from UNEP, LVBC,

USAID and ICPAC project coordinators on the AF LVB Project concept proposal as well presentation and stocktaking of the various existing adaptation initiatives in the LVB and their linkages to the project concept. b) Breakout sessions to discuss the main components and the expected outputs as well as proposing indicative activities c) Plenary discussions on components and discussions on draft log frame and work plan and way forward. The workshop was structured to spend more time on discussing the expected outcomes areas and how the indicative activities should contribute to these outcomes. The workshop agenda enabled participants to engage in a detailed discussion of the project logframe and linkages with existing adaptation initiatives as well as implementation arrangements in the regional context.

Opening session

The workshop was officially opened by Mr. Stephen King'uyu, Climate Coordinator of the Climate Action Plan and representative of the Government of Kenya. Mr. King'uyu reiterated the Kenyan government's commitment and thanked all participants for their contribution and participation in the regional consultation and commended the UNEP team for coordinating the consultations.

Following the opening remarks, Mr. Desta Mebrahtu, UNEP Deputy Director for the Regional office for Africa (UNEP-ROA) explained the need for climate change adaptation initiatives in the region, emphasizing the vulnerabilities that communities in various parts of East Africa have been facing. He further assured the representatives of the Governments and Regional bodies his offices dedication to solving the challenges that the Lake Victoria Basin (LVB) is facing.

Mr. Barney Dickson, Head of the UNEP's Climate Change Adaptation Unit (CCAU) gave an overview of UNEP's Adaptation work and further gave updates on the Adaptation Fund LVB project proposal and thanked the participants for all their inputs at various stages of this proposal. He acknowledged the importance of an exhaustive stakeholder engagement at this stage of the proposal design to maximize the impact of the project in the LVB.

Presentations

Dr. Musonda Mumba (UNEP) gave a presentation on the background and context of the AF LVB Climate Change Adaptation project and highlighted the regional and country challenges it seeks to address. She further explained each component of the project and how these components feed into the overall objective of reducing vulnerability to the negative effects of climate change in the five Lake Victoria Basin countries, namely Burundi, Kenya, Rwanda, Tanzania and Uganda, by building climate resilience (See Annex 2a for presentation).

Presentations from various initiatives in the Lake Victoria Basin followed with organizations presenting their work as well as highlighting the linkages and complementarities to the proposed LVB project.

The Lake Victoria Basin Commission (LVBC) presented on the present state of the LVB and the diverse challenges that it is facing due to climate change. They further elaborated on the various EAC/LVBC (See Annex 2b for presentation).

The IGAD Climate Prediction and Applications Centre (ICPAC) gave an overview of their work on Early Warning in the region as well as their products and services including Decision Support Tools that strengthen the interface between climate information producers and users. (See Annex 2c for presentation)

Representatives from the Prepared Project summarized the project and the VIA approach and how its outputs can be utilized in the proposed Adaptation Fund LVB PROJECT. The PREPARED Project is a five year initiative funded by the United States Agency for International Development (USAID) to strengthen the resilience and sustainability of East Africa economies, trans-boundary and freshwater ecosystems and communities. (See Annex 2d for presentation).

Discussions on the LVB Project Components

The workshop participants analyzed the project components assembled in groups to deliberate on the logframe and discuss any changes that may be required. Below is a summary of the main points from the breakout sessions. (See Annexes 3a, b & c for breakout session suggestions).

Logical Framework:

- It was agreed that the five components stipulated in the concept note were appropriate and should be maintained in the full proposal.

Component 1:

- The component should remain focused on strengthening institutional capacity to integrate climate resilience into transboundary water catchment management in the LVB.
- The project should not establish a new Climate Change Unit in the LVBC. Instead, the project should strengthen existing structures.

Component 2:

- This component will focus on the dissemination of climate information rather than the generation of climate information. Therefore, no additional equipment to be bought, but rather the project will build on ongoing initiatives to share data (e.g. existing information centres) and strengthen existing institutions (e.g. ICPAC and FEWSNET to develop basin-specific products).

- The total budget for this component may be reduced because no equipment is being bought.

Component 3:

- This component will develop on a regional approach to adaptation based on international best-practice to address basin-wide climate threats.
- The adaptation measures identified in this regional approach will be implemented in project sites that have been identified as most vulnerable to climate change within each of the five Partner States. The identification of these most vulnerable sites will build on the work conducted by existing and ongoing initiatives (e.g. vulnerability mapping undertaken through PREPARED).

Component 4:

- This component will provide small grants to innovative and community-specific approaches to adaptation.
- This component should build on indigenous knowledge and encourage communities to define their own interventions.

Component 5:

- It is recognized that knowledge management is necessary and should be maintained in the project design.
- In the full proposal, the number of workshops stipulated in the concept note should be reduced and a greater emphasis should be placed on developing tangible knowledge products.
- It would be beneficial to provide these knowledge products in local languages.

Resources:

- Resources for regional components (e.g. Component 1 and Component 5) should be fairly allocated to ensure a regional approach to adaptation.
- Resources allocated to concrete on-the-ground interventions will be allocated equally to each Partner State, but may be utilized in transboundary activities in a targeted climate change vulnerable system (e.g. Mara area).

Conclusion and Way Forward

To conclude the workshop, a brainstorming session and discussion was held on how to go forward in incorporating the suggestions from the various stakeholders into the design of the project proposal. Discussions on implementation arrangements were held and way forward agreed. The results of this session are summarized in the remarks below:

Implementation arrangements:

- UNEP will be the Implementing Entity
- LVBC will be the Executing Entity.
- A national focal point/team will be identified in each country. This will include the NDA, and the NIE where applicable. It will also include any other relevant ministries (or intuitions) in the country. Each Partner State will decide on the composition of their own focal point/team.

- A multi-stakeholder Project Steering Committee will be established with representatives from all five Partner States.

UNEP, as the implementing entity has requested the various government representatives and other LVB stakeholders for any additional information they feel would improve the quality of the project design. This information includes latest versions of Strategic National Documents guiding climate change adaptation in each country. The documents are likely to include National Development Plans, NAP's or Climate Change Strategy and/or Action Plan.

Further to strategic documents, the implementing team has requested the representatives to flag any gap in the project proposal regarding relevant government ministries and institutions that are involved in climate change adaptation initiatives in the LVB as well as gaps in ongoing government and donor funded projects being implemented in the LVB.

UNEP will communicate as regards to proposed dates for in-country consultations, the costs per country for the consultations and the possibility for a final validation meeting with countries prior to submission to the Adaptation Fund Secretariat on 1st August, 2016.

UNEP also explained the need for Endorsement Letters from the NDAs of each government at each stage of the project proposal once the final draft of the project proposal has been presented to the governments as per the AF guidelines.

****

Annexes:

1. List of Participants

2. a. UNEP Presentation; b. PREPARED Presentation; c. ICPAC Presentation

3. a – c: Group work (1,2 & 3) reports

Lake Victoria Regional Consultation Workshop
Nairobi, Kenya
7 – 8 June 2016

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Adapting to Climate Change in Lake Victoria Basin

The Concept & Components

Regional Consultation workshop of the AF Lake Victoria Regional Project Proposal
UN Gigiri Complex
7 & 8 June, 2016
Nairobi, Kenya

Dr. Musonda Mumba,
Climate Change Adaptation Unit, UNEP

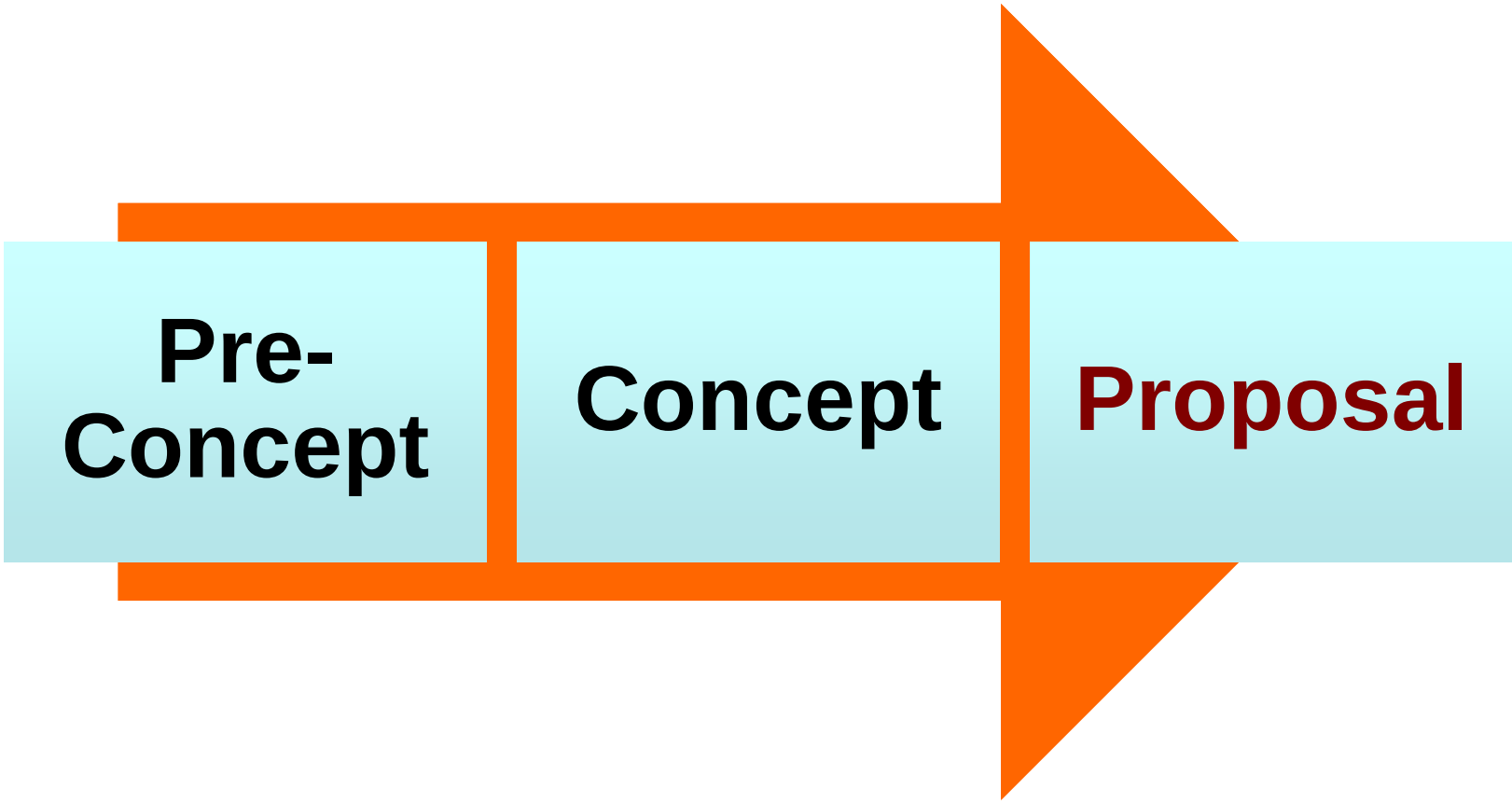
UNEP

WHY Lake Victoria

- The lake system as a whole (region) is vulnerable to the impacts of climate change;
- **Adaptation** to CC impacts is primary to survival of not just the communities but local/regional economies;
- For shared water systems, **transboundary** strategies are necessary at institutional, community & personal levels;
- **Early warning systems** are a necessity for adaptation;
- Build **BRIDGES** with past & on-going work.

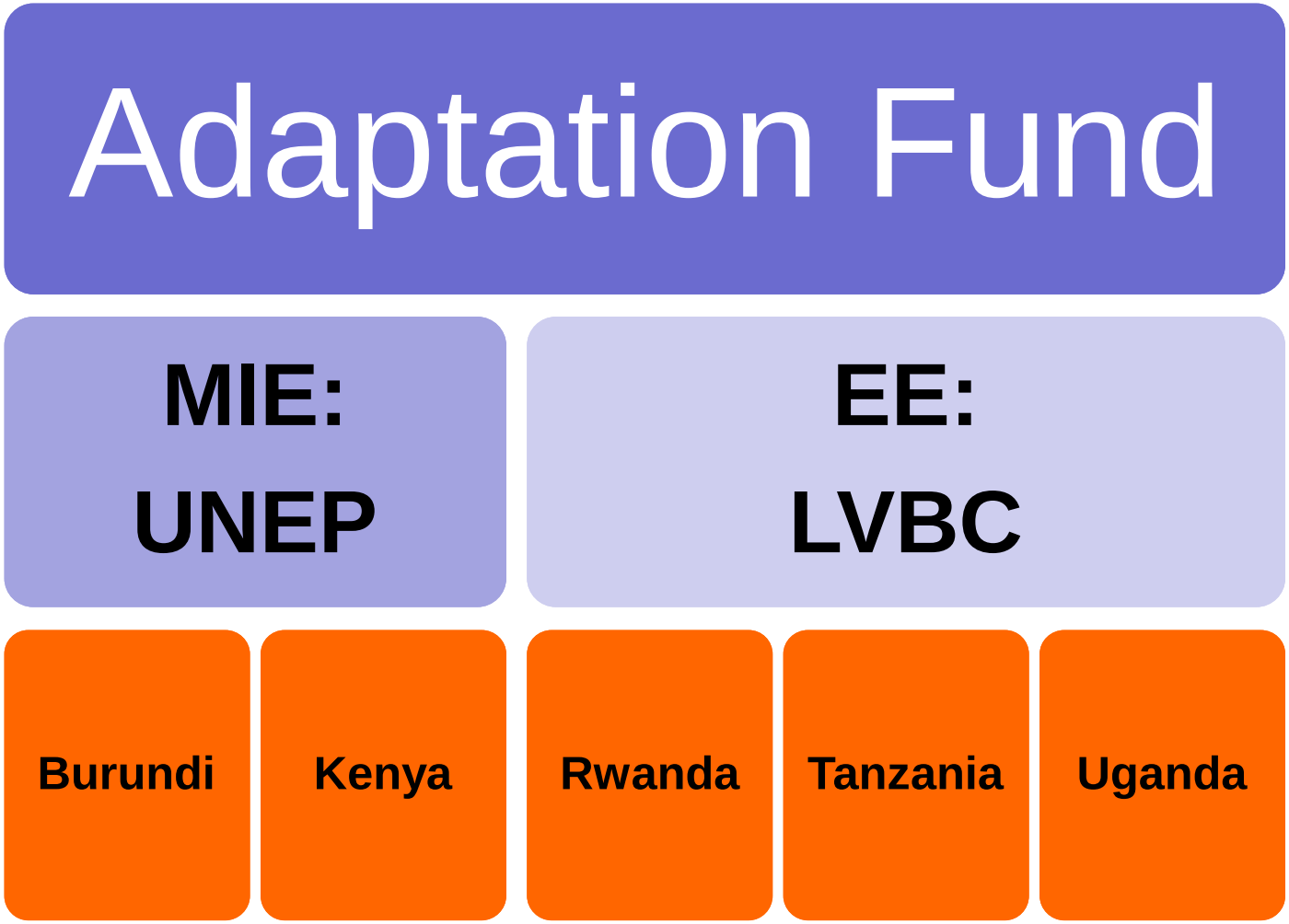
Proposed plan of action

Process

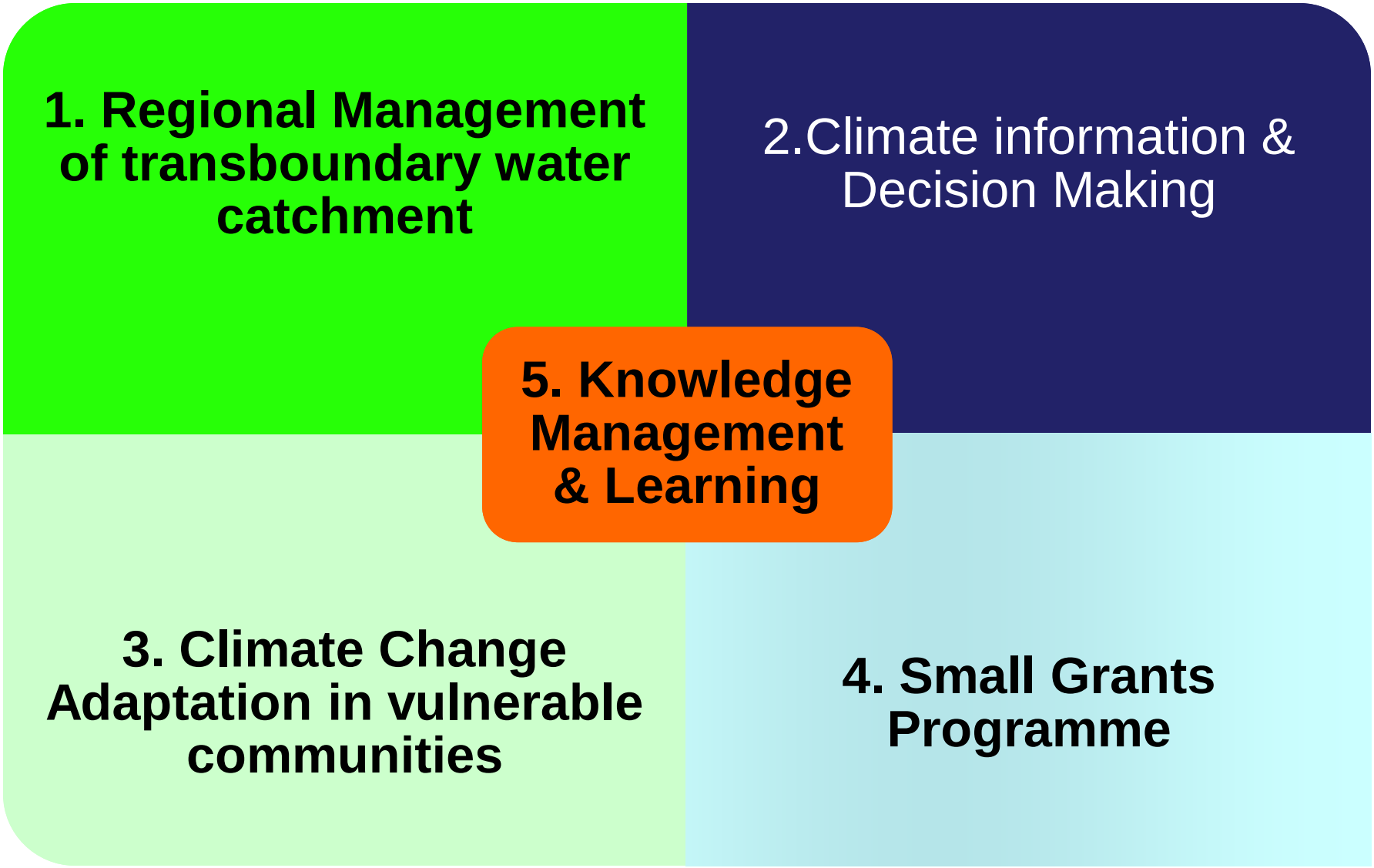


Budget: USD5,000,000

Implementation Modalities



Proposed Components



Project Component & Expected Outcome

- **1. Regional Management of transboundary water catchment**

- **1.0** Strengthened institutional Capacity to integrate climate resilience into transboundary water catchment management;

Project Component & Expected Outcome

- **2.Climate information & Decision Making**

- **2.0** Improved delivery of accurate and timely climate information – with emphasis on transboundary water catchment management – to regional and national policy makers, technical officers & local communities;

Project Component & Expected Outcome

- **3. Climate Change Adaptation in vulnerable communities**

- **3.0** Climate change adaptation technologies transferred to communities to reduce their vulnerabilities to CC;

Project Component & Expected Outcome

- **4. Small Grants Programme**

- **4.0** Regional Resilience to climate change promoted through innovative, community-based projects.

Project Component & Expected Outcome

- **5. Knowledge Management & Learning**

- **5.0** Improved Knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.

....Thank You....

Breakout Groups

KEY Questions

GROUP WORK

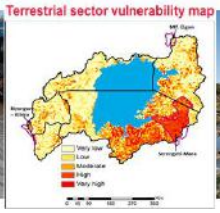
PART 1

- Is there any info that's missing in the **components**?
- How should the **allocation of resources** be at Component level?
- What other elements need to be added/removed under the **Expected Output**s Section of LogFrame?
- Are there any **indicative activities** that are missing or should be removed?

IMPLEMENTATION ARRANGEMENTS
PART 2

- Are there other stakeholders we need to include in this process?
- For the National Implementing Entities (NIEs) Kenya and Rwanda – what role can you play in proposed implementation?.....

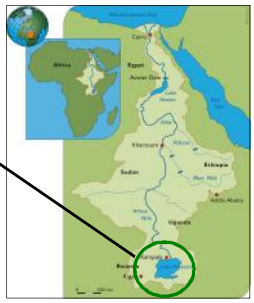
LAKE VICTORIA EXISTING ADAPTATION INITIATIVES & LINKAGES TO THIS PROPOSED PROJECT



By
Fredrick Mhina Mngube
LVBC Environment and natural resources officer

THE LAKE VICTORIA BASIN GLOBAL PERSPECTIVE

- Lake Victoria second largest freshwater Lake in the world,
- surface area of about 68,800 sq. km The Lake Victoria Basin covers 183,000 sq km
- LVB most important shared Ecosystem in EA
- The Basin has vast economic potential
- Estimated GDP of US$30 bn
- Pop 40 million



DESCRIPTION OF LVB

Country	Lake Surface Area		Catchment Area		Lake Shoreline	
	Sq Km	%	Sq Km	%	Km	%
Tanzania	33,756	49	79,570	44	1150	33
Uganda	31,001	45	28,857	15.9	1750	50
Kenya	4,113	6	38,913	21.5	550	17
Rwanda	-		20,550	11.4	-	
Burundi	-		13,060	7.2	-	
Total	68,870		180,950		3,450	

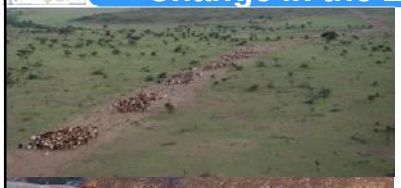
SOCIO-ECONOMIC IMPORTANCE OF LVB

- Inland water fishing sanctuary(400m USD)
- A major inland water transport link
- A source of water for HEP
- Climate modulator
- Rich biodiversity (F&F)
- Socio-economic importance include the vast Natural Resources

Impact of Climate Change in the LVB

- water
- Agriculture

Impact of Climate Change in the LVB



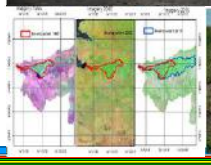
- Livestock
- Wildlife

LVBC

- Forestry
- Fisheries

LVBC

Impact of Climate Change in the LVB



- Habitat
- Wetlands

LVBC

INITIATIVES OF EAC/LVBC

- Developed EAC Climate change Master Plan, Strategy and Policy;
- Established Climate Change unity in EAC Secretariat; and desk in LVBC Secretariat;
- Identify Lake Victoria climate change hotspots;
- Research on the crop varieties that are adaptive to climate change; maize, beans, Cassava among others;
- Develop project that addresses Wetlands, pasture, wildlife, water and habitat management among others;
- Through other Partners Conduct Climate Change VIA; EPA that identified 9 Biologically significant areas that requires immediate measures;

LVBC

Initiatives of EAC/LVBC

- Through other Partners Conduct EPA that identified 9 Biologically significant areas that requires immediate measures;

1. Lake Nabugabo
2. Maasai Mara and Serengeti National Park ecosystem;
3. Mara Swamp & Bay
4. Mwanza Gulf
5. Lake Rweru-Mugesera complex and Northern Aquatic protected landscape (Rwanda and Burundi)
6. Nyungwe–Kibira Forest/National Parks
7. Yala/Nzoia wetlands;
8. Sango Bay/Minziro
9. Mt Elgon Ecosystem

LVBC

Initiatives of EAC/LVBC

- Built capacity on transboundary water users to manage transboundary water resources;
- Facilitate EAC Partner States to develop MOU for transboundary management; lakes Chala, Jipe and Umba river ecosystems; Mara river water resources management; and draft final MoU for Nyungwe—Kibiria
- Prepared Mara River Basin Natural Resources Management Plan;
- Supported and institutionalized annual Mara River Day;
- LVBC and UNEP developing project that will implement LVB Climate change Adaptation strategy and action plan.

LVBC

CLIMATE CHANGE ADAPTIVE CASSAVA VARIETY MUSOMA DISTRICT BY WWF IN 2008

THANKS

AN OVERVIEW OF ICPAC ACTIVITIES ON EARLY WARNING

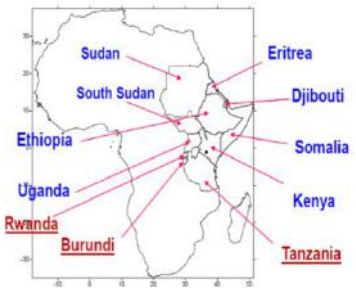
CONSULTATIVE MEETING ON THE
LAKE VICTORIA BASIN REGIONAL CONSULTATION MEETING
7-8 JUNE 2016, NAIROBI, KENYA
UN GIGIRI COMPLEX, CONFERENCE ROOM 13

By: Abebe Tadege & Geoffrey Sabiiti
IGAD Climate Prediction and Application Center (ICPAC)

PRESENTATION OUTLINE

1. Introduction
2. What ICPAC do
3. Products and Services
4. Challenges and gaps
5. Recommendations

1. INTRODUCTION



History of ICPAC

- **1989- DMC (Drought Monitoring Centre) was established**
- **2003- IGAD ratified the decision to absorb DMC as an autonomous specialized Institution of IGAD**
- **2007- ICPAC establishment Protocol signed by IGAD heads of states**

1. INTRODUCTION

Mandate

- ICPAC is charged with the responsibility of coordinating climate related issues in the sub Region including
  - Climate variability
  - Climate Change
  - DRM

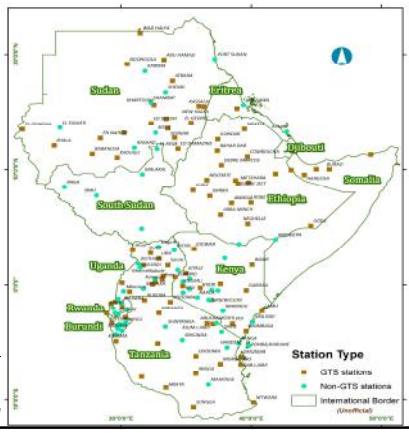
1. INTRODUCTION

Mandate

Operational Activities

- Climate data collection and archiving
- Climate Monitoring
- Climate Prediction and Early Warning
- Climate Application
- Climate Research and modeling
- Climate Change
- Disaster Risk Management (DRM)
- Capacity building

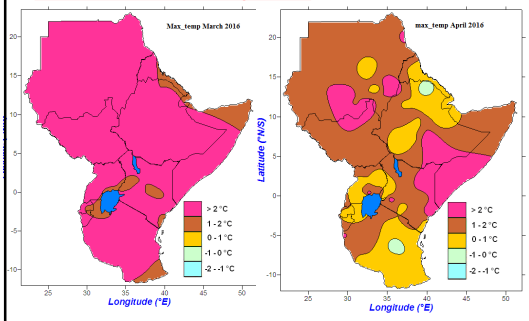
2. PRODUCTS AND SERVICES



- Climate data collection and archiving
- Observed data
- Satellite
- Blended data
- Climate model data

2. PRODUCTS AND SERVES

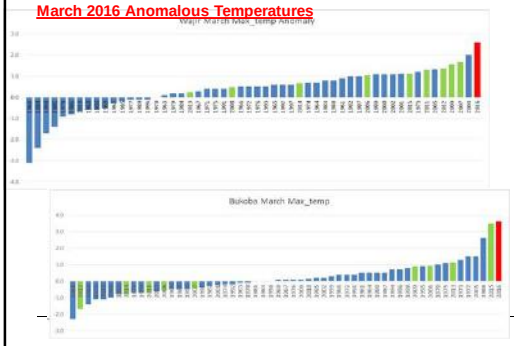
March 2016 Anomalous Temperatures



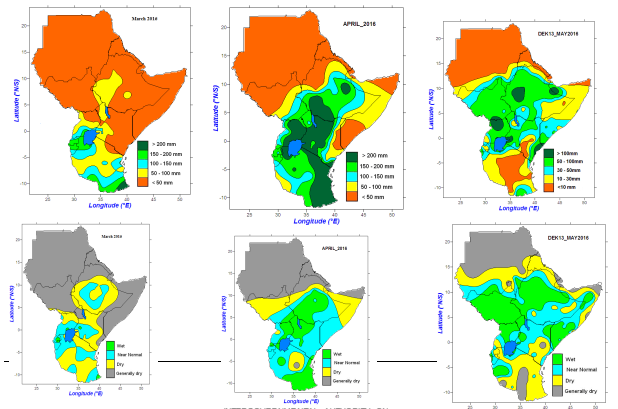
Climate monitoring

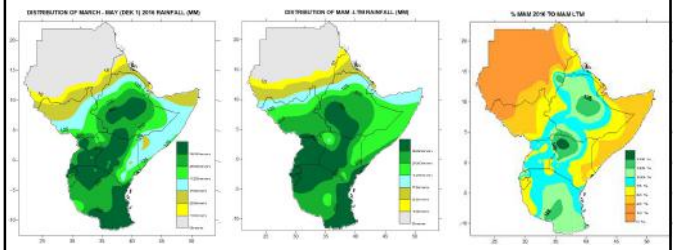
2. PRODUCTS AND SERVICES

March 2016 Anomalous Temperatures



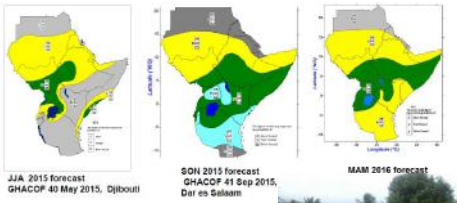
Climate monitoring





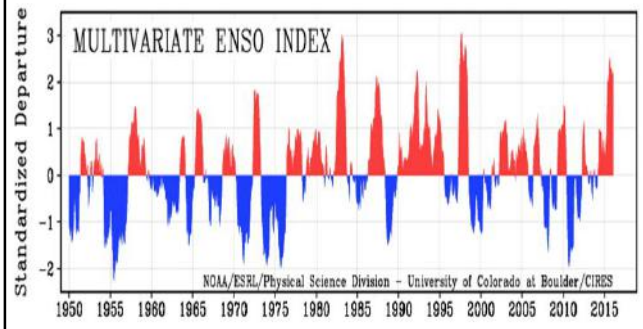
2. PRODUCTS AND SERVES

Climate Prediction

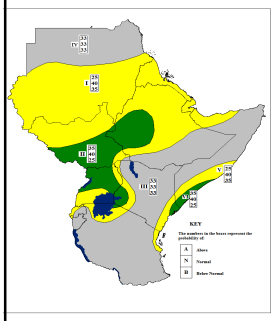


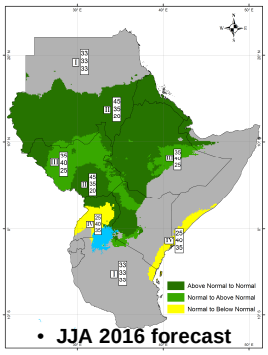
2. PRODUCTS AND SERVICES

ENSO events since 1950



2. PRODUCTS AND SERVICES





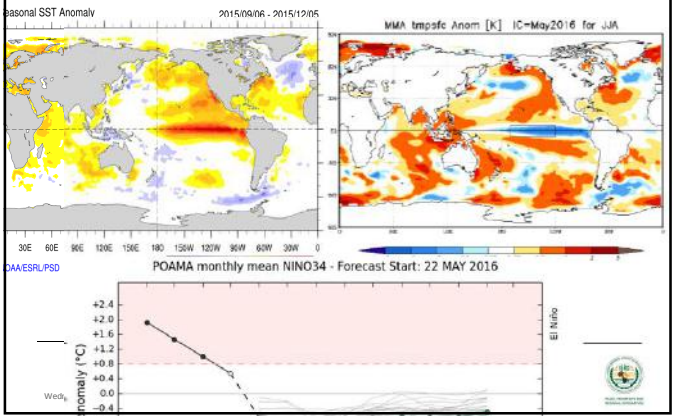
Climate Prediction

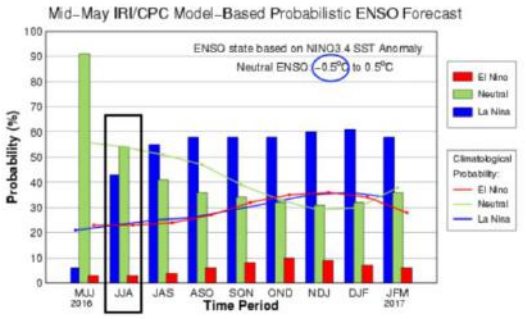
- JJA 2015 forecast
- JJA 2016 forecast

GHACOF 40, Kigali, May 2015

GHACOF 43, Naivasha, May 2016

CURRENT SEASURFACE TEMPERATURE ANOMAIES





2. PRODUCTS AND SERVICES

Strengthening the interface between climate information producers and users

IGAD-ICPAC and Partners convened a regional consultative meeting on El Nino preparedness, 21st October 2015 in Naivasha, Kenya

GHACOF42 : Lemigo Hotel, Kigali [illegible] 2016

2. PRODUCTS AND SERVICES

Climate Change

A draft IGAD regional climate change strategy (IRCCS) has been prepared through the financial support of EU. Objectives and Scope of IRCCS are

- **To promotes low carbon and climate resilient development in the IGAD region**
- **The strategy will address both adaptation and mitigation as well as climate change science**
- **It has identified priority sectors and cross cutting issues of the region including**

- **Next steps are adoption and mobilization of resources to implement the strategy**

2. PRODUCTS AND SERVICES

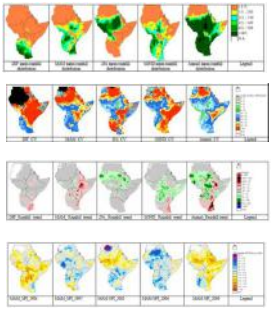
CAPACITY BULDING

Several staff members from national meteorological services and other institutions have been trained on climate data gridding, analysis and climate products generation using the GeoCLM tool and climate change scenario development using dynamical and statistical downscaling techniques

2. PRODUCTS AND SERVICES

Decision Support tools

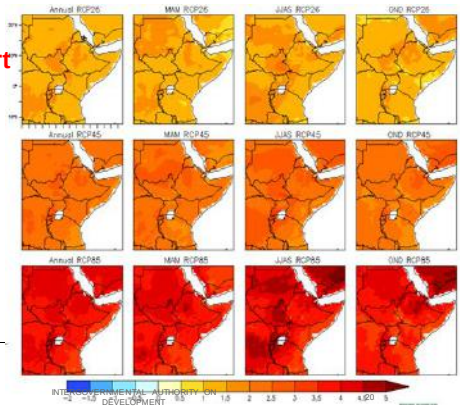
- Generation of mean (baseline) climates
- Coefficient of Rainfall Variability
- Rainfall trends
- Drought monitoring



2. PRODUCTS AND SERVICES

Decision Support tools

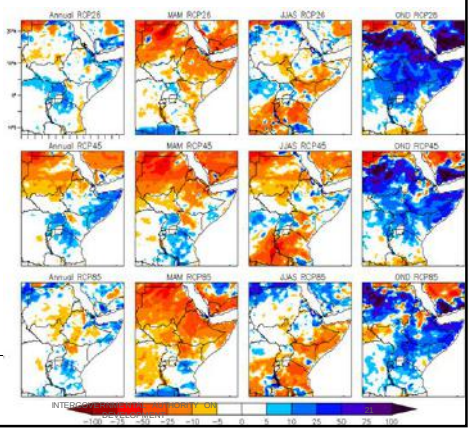
- **Climate change Scenarios in the GHA region**
- **Temperature projections**



2. PRODUCTS AND SERVICES

Decision Support tools

- **Climate change scenarios in the GHA region**
- **Rainfall projections**



3. CHALLENGES & GAPS

- **Capacity**
- **Finance**
- **Knowledge**
- **Data**
- **Awareness**

4 .RECOMMENDATIONS

- Much of Horn of Africa is arid or semi arid with very large inter-annual climate variability;
- Rainfall is the most critical climate element due to high degree of variability and very strong seasonality;
- Risk and vulnerability of the society to climate extremes is increasing due to increasing population & change in land use;
- With climate change, the frequency of extreme climate events is increasing;
- El Niño/Southern Oscillation (ENSO) is the most important coupled ocean-atmosphere phenomenon to cause global climate variability on inter-annual time scales;
- ENSO impacts in Horn of Africa are highly modulated by the local and regional climate systems including Indian Ocean Dipole;
- Hence the need for monitoring and early warning.

THANK YOU VERY MUCH!

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USAID/East Africa
Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED)

Vulnerability, Impacts and Adaptation Assessment (VIA) in the Lake Victoria Basin, UNEP, Nairobi June 7, 2016

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PRESENTATION OBJECTIVES

- Summarize PREPARED and VIA approach
- Present expected outputs for the VIA and connection to the UNEP proposal activity

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PREPARED COMPONENTS

- Climate change adaptation
- Biodiversity conservation
- Water supply, sanitation and hygiene (WASH)

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PREPARED PROGRAM PARTNERS

- **EAC/LVBC** –leadership for networking, facilitating, coordination regionally and with Partner States
- **ICPAC** – building regional, sustainable climate information networks and databases and providing analytical and predictive services
- **FEWSNET** – providing innovative technologies and approaches for building climate databases and capacity to manage and use data
- **RCMRD/SERVIR** – assisting with geospatial systems that can be used to assess vulnerability
- **PREPARED Project** – providing overall technical coordination and program management

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TECHNICAL APPROACH

The core adaptation task in the region is to build the capacity to cope with uncertainty rather than being reactive to a specific climate impact:

- Build resilient and responsive institutions
- Utilize and strengthen existing governance structures
- Use transboundary climate change adaptation as cross-cutting framework for resiliency
- Introduce integrated financing mechanisms – global climate funds
- Develop state-of-the-art scientific tools and models for decision—making and climate information sharing

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Mainstream climate change adaptation strategies – conduct Vulnerability, Impacts and Adaptation Assessment (VIA) in Lake Victoria Basin (LVB)

- The VIA is a an analysis of expected impacts, risks and adaptive capacity of the LVB region to the effects of climate change.
- IPCC definition of vulnerability:
  - ***Exposure*** (rain, temperature, climate hazards)
  - ***Sensitivity*** (malaria stability, soil degradation), and
  - ***Adaptive capacity*** (education, household wealth)

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VIA FOR THE LVB

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Phase 2: Access Current Vulnerabilities

- **Assess current systems' exposure and risks**
  - Challenge because of lack of comprehensive historical temperature and precipitation data
  - To compensate support the development of national gridded data sets in each Partner State & train staff on GeoCLIM → Regional gridded data set
- **Determine adaptive capacity and strategies** - using Vulnerability Index (VI) Mapping, FEWSNET's food insecurity database, identify communities that are most vulnerable to CC and access their adaptive capacity C3A2
- **Analyze current climatic extremes and trends**- identify climatic thresholds – tipping points

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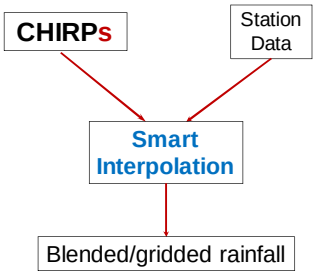
WHAT IS GEOCLIM SOFTWARE?

Climate
Hazards
Infra-
Red
Precipitation
With
stations



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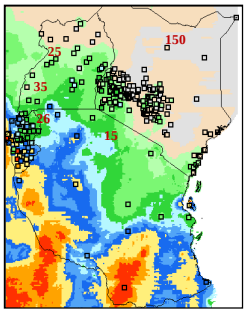
INTRODUCING AND INSTITUTIONALIZING GEOCLIM?



- Trained all 5 Partner States- met services- in GeoCLIM - with ICPAC & FEWSENT
- Contributed station data to build gridded datasets (30 year database)
- Merged regional GeoCLIM gridded dataset built and housed at ICPAC
- Working with Regional WMO office and five NMHS's to standardize GeoCLIM and integrate with CLIMSOFT

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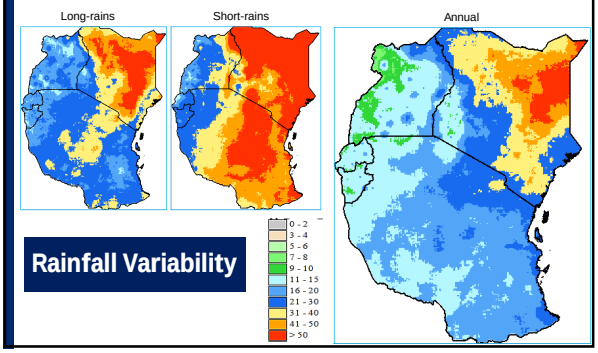

Rainfall Variability

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REGIONAL VULNERABILITY MAP

VULNERABILITY = EXPOSURE + SENSITIVITY + ADAPTIVE CAPACITY

COMPONENT	INDICATOR	GEOSPATIAL DATA LAYER	INCLUDE	TYPE
Exposure	pptav	Average Annual Rainfall Totals	Y	Raster
Exposure	pptcv	Inter-Annual Coefficient of Variation of Rainfall	Y	Raster
Exposure	ttrend	Long-Term Surface Temp Annual & Seasonal Trends	Y	Raster
Exposure	flood	Flood Frequency and polygons (1997-2007)	Y	Raster
Exposure	spi15dgt	Drought Index SPI less than -1.5 standard deviations	Y	Raster
Exposure	spi15fld	Flood Index SPI greater than 1.5 standard deviations	Y	Raster
Sensitivity	imr	Infant Mortality Rate (2006)	Y	Vector
Sensitivity	mala	Malaria Stability Index	Y	Raster
Sensitivity	carb	Soil organic carbon/soil quality (1950- 2005)	Y	Raster
Lack of Adaptive Capacity	mark	Market Accessibility (Distance from Markets)	Y	Raster
Lack of Adaptive Capacity	anth	Anthropogenic Biomes (2000)	Y	Raster
Lack of Adaptive Capacity	irri	Irrigated Areas (1990 – 2000)	Y	Raster
Lack of Adaptive Capacity	hhwl	HouseHold Wealth (2006)	Y	Vector

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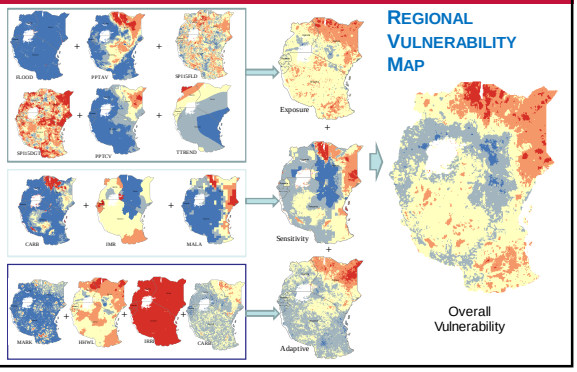
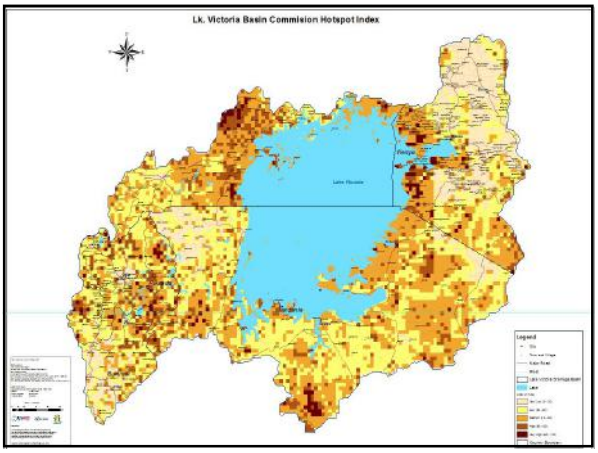
Regional Vulnerability Map





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Phase 3: Develop and Apply Future Scenarios

- Develop climate scenarios – using Global Climate Models (GCM) using future emission and development scenarios
  - Refined scenarios to reflect East Africa's future projected economic development in 2030, 2050, 2070
- Assess non-climatic stresses and determine adaptation opportunities and barriers
  - Ensure anthropogenic factors are considered in the GCM

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Phase 4: Estimate Future Vulnerability and Risk

- Identify and describe future impacts- downscale GCM to account for local climatic factors – topography, proximity to oceans etc.
  - Using statistical modeling
  - Show climate change factors by 5 VIA sectors
- Develop the following products:
  - Climate risk maps (rainfall onset, seasonality amount, extreme events, wet and dry spells)
  - Climate hotspot maps by sector
  - Graphs and tables outfling key climate change factors by VIA sector

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Phase 5: Develop Adaptation Options

- Adaptation Options Workshop scheduled for July 15-16, 2016 with the CCTWG meeting
- Viable options that provide reasonable chance for implementation: support, up-scale potential, cost effective:
  - ***No Regrets***: deliver socio-economic benefits, low barrier to implementation, low cost, capacity building, fixing water leaks, regulations against building in flood plains, etc.
  - ***Limited Regrets***: low cost and benefits large- water storage facilities in drought-prone area, etc.
  - ***Win-Win***: reduce or minimize risk- normally mitigation measure
  - ***Flexible or adaptation management options-*** incremental, not large scale option from the beginning

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Phase 6: IMPLEMENT!

Prepare LVB Climate Change Adaptation Strategy

Implement the strategy/adaptation options

Upscale the Community Climate Change Adaptation Assessment (C3A2)

Part of the reason we are here today.

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VIA Status

- VIA baseline reports completed
- VIA future climate projections completed for 2030, 2050, and 2070 (for RCP 2.6, 4.5, 6.0, and 8.5)
- Impact scenarios for five IPCC sectors being finalized
- Options Analysis workshop with representative stakeholders on July 14th – 15th
- Lake Victoria Basin Climate Change Adaptation Strategy and Action Plan (LVB CCSAP) prepared before September 30th, 2016 and submitted to EAC Climate Change Technical Working Group
- Implementation of the (LVB CCSAP) – funding required (e.g. Adaptation Fund or Green Climate Fund)

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VIA Implementation Process Recap

- Collaborative effort among PREPARED Program partners – Project, ICPAC, FEWSNET/USGS, and RCMRD to determine hotspots and identify vulnerabilities
- Historical and future impacts modeling being conducted by ICPAC and FEWSNET using GeoCLIM and Cordex 10 RCM
- Training of NMHS's is being conducted by FEWSNET, ICPAC, and PREPARED on use of GeoCLIM software and building national and regional gridded datasets
- Vulnerability Index mapping introduced and can be correlated with GeoCLIM hotspots
- Community climate change adaptation assessments (C3A2) lead to community climate change adaptation projects under VIA
- Stakeholder engagement, communication, awareness, and outreach to be integrated throughout the VIA

NAMES: GROUP 1

- Hussein Ndagije- Burundi
- Bwire Masinde- Tanzania
- Prudence Ndabasanze- Rwanda
- Eng. Jura Omedi- Kenya
- Abebe- ICPAC
- Brian Otiende- USAID

General Comments

- Figures and statistics on the Lake surface and population to be amended as appropriate (Pg. 4)
- Justification to be reviewed to avoid politically sensitive issues but focus on technical aspects- National Visions to be linked with climate change issues rather that going straight into the issues of good governance (Pg. 36-37)
- Issue of fisheries to be given more focus- productivity and effect on climate change on fisheries- propose acquaculture interventions as part of the alternative livelihoods
- Table on National circumstance (Pg. 35) focusing on NAPAs to be informed by most recent National Development Plans including Adaptation Strategies

General Comments Cont…

- SDGs (Pg. 38), 4th EAC Development Strategy to be cited as 2011/12-2015/16)
- National Development Goals (Pg. 36) for Burundi is missing- Vision 2025
- LVBC Secretariat to liaise with Partner States to get National Focal Points nominated for the Project Proposal and assist in providing required national data and information- National Coordinators for the PREPARED Project recently appointed to be considered
- The project be supported by vulnerability basin focused facts such as maps and graphs may be attached as annexes
- Part 8 of the budget

PART 1. Missing Information in the Components

1. Missing Information in the Components

(i) Regional Management of the LVB Transboundary Water Catchment

- This seems to be too ambitious- the activities to be revised to make them more realistic and focused – e.g establishing the LVBC CC Unit- This should be confined to establishing a Project Coordination Unit

(ii) Climate Information and decision-making

- There is too much of assessments and reviews- Concrete infrastructure that promote climate data and information dissemination tools such as automated weather stations and Climate Information Network being established with support under PREPARED Project
- Support organizations undertaking capacity building activities for National Meteorological Services such existing Regional Centres of Excellence

PART 1. Conti…

(iii) Climate Change adaptation in vulnerable communities

- Apply findings of the PREPARED ?? Lake Victoria Hotspot Maps as a result of the VIA, Community Climate Change Adaptation Assessment using Participatory Rapid Appraisal
- EbA activities such as homegardens may only be suitable for urban setting- rural setting to focus on micro-irrigation (small-holder irrigation) and commercial agriculture

Part 1. Cont…

IV Small Grant Programme

- Equal allocation for demonstration
- Upscaling activities to be more practical through providing funds for best/innovative practices
- Formulate a mechanism for leveraging and mobilizing additional resources to support up-scaling

Part 1

(i) Knowledge Management and Learning

- Will the knowledge management portal be established? Support activities or projects at schools that encourage climate related knowledge and innovative ideas.
- Activities at 5.3 to reflecting the intended output. , thus we recommend formulating relevant activities.
- The area of indigenous /traditional/local knowledge appeared to not highlighted

Part 2.

2.Resource Allocation at Component level

- More resources to be allocated to component 3 where community based adaptation technologies are proposed

3. Other elements/ Activities to be added/removed in the Expected Outputs in the Logframe

- Most of activities are related to workshops, which can easily be combined by maintaining the expected results and outputs eg. Component 5,there are more than 5 workshops which can be reduced to two or three.

Part 2

4. Additional Stakeholders

- List of contact persons in the institutions listed in Pg. 43 as stakeholders to be included
- We need a clear structure of the key stakeholders and their role including the level of engagement.
- Clear mapping and analysis of stakeholders appeared inadequate

Part 2. Cont..

5. Proposed Role of Existing National Implementing Entities for Kenya and Rwanda

- NIEs for Rwanda and Kenya should come onboard as stakeholders.

Part 2

6. Implementation Arrangements

- The text should be revised to articulate the role of NDAs.
- Where the role of NIEs for Rwanda and Kenya identified the equivalent from other partner states should be brought on board.
- Though The Vice President's Office –Division of Environment, identified in the document to have the Validation Mandate, is missing in the arrangement. For Tanzania , the VPO, should be taken as Focal Office together with the Ministry of Water and Irrigation

Asanteni kwa kunisikiliza

GROUP 2; Notes on Discussion, 7 July 2016

1. Is there any information that's missing?
2. How should the allocation of resources be by component level?
3. What other elements need to added/removed under the expected outputs section of log frame?
4. Are there any indicative activities that are missing or should be removed?
5. Are there other stakeholders we need to include in this?

COMPONENT 1: Regional Management of a Transboundary Water Catchment

a. 1.1.2 – Currently, there is no CCCU at LVBC. Need a coordinating mechanism at the LVBC who are responsible for coordinating the program at the Partner State level- a PMU. Re-word to be focal point(s) at LVBC (not a unit) who are responsible for climate change and one for admin/operations/program management. LVBC will request the CC person to be institutionalized after the end of the Project.
b. 1.1.3- build the capacity of additional transboundary implementing organizations such as the JTC of the MRB (Kenya-Tanzania)- maybe link the additional transboundary implementing organizations to be eligible
c. 1.2 and 1.1.3 are both targeting capacity building/training – need to harmonize and ensure capacity built is on all levels- regional, trans boundary, national, local. This logic needs to be sorted out
d. 1.3- this is way too broad. Maybe combine with 1.1 because it about setting institutional frameworks and best practices. Maybe for 1.3 you choose pilot sites implementing the plan is unlikely in the timeframe.

Component 2: Climate Information and Decision- Making

- Currently do not have any information on perception and evaporation rates for the Lake itself, explore option of collecting data in the lake- how? Cost-reasonable? OR satellite data and combine with field verification
- May need to do a stakeholder mapping exercise to identify the people we are targeting for the climate information. Need to build on ICPAC's distribution list.
- Modality for bringing all the climate information providers together on a monthly basis- to discuss forecasts and get information out
- Need to design standardized communication packages that target different audiences PS/Minister; Met Services; Private Sector; Civil Society. The packages will have monthly forecasts based on the information from ICPAC, FEWSNET, RCMRD. Then LVBC distributes this information to their target audiences identified during the stakeholder mapping. Perhaps the information is distributed through the portal
- Move money from Component 2 to 1 ($100k - $200k)

Component 3: Climate Change Adaptation in Vulnerable Communities -

3.1- Maintain, need to identify the hotspots were activities will be executed, but also need to understand who is operating on the ground to ensure UNEP/LVBC is targeting villages/communities where there isn't current support.

New 3.2- Define a Regional Approach for Adaptation to demonstrate CC interventions and technologies. It would be great if there were clear step by step guides that are easy for community to follow. This will Then it is all implemented through specific tenders/subcontracts to implement the adaptation options and technologies.

- To define the CC adaptation intervention and technologies This will need to be a meeting or a series of interventions where the technologies are defined by technocrats from each Partner State

Current 3.2 & 3.3- this are examples adaption strategies that may be captured in the Regional Approach and implemented under component 4.

Move money from component 3 to component 4, get the grant budget up to $1million

Component 4: Small Grants

- see above- grants used to implement Regional Adaptation Approaches and/or innovative solutions from local context.
- Or allow this to be innovation were communities define their own interventions.
-

Component 5: Knowledge Management & Learning

- 5.1.1 The purpose of this is not to fund CC, but getting researchers together to share best practices and learn from one another
- Exhibition to show the successes of the grants program on regional level.
- Under resources
- Use local languages
- Too many workshops

Ongoing Projections:

- Africa Adaptation Initiative (WWF) in Tanzania and Kenya
- Africa Rift Lakes Program (WWF)
- East Africa ESD Program – ends in dec 2016 (WWF)
- Regional Energy Program (WWF)
- NELSAP (NBI)
- LVEMP (LVBC)
- LVBWATSAN (LVBC)
- GWP Eastern Africa

Chelsea's suggestions:

- Rename Component 3 to capture that LVBC is going to define the locations for implementation and develop best practices for piloting
- Rename Component 4 from small grants to Implementing Climate Adaptation in Vulnerable Communities. (small grants is just the modality)

GROUP 3 DISCUSSIONS

COMPONENT 1: **Regional management of a transboundary water catchment**

No	Is there any info that's missing in the **componets?**	How should the **allocation of resources** be at component level	What other elements need to be added/removed under the **Expected Outputs** Section of the Log frame	Are there any **indicative activities** that are missing or should be removed
	- There is need to re-look into the establishment of the Unit at LVBC as it takes long. LVBC Secretariat need to put in place a mechanism to support the implementation of the programme through the establishment of the Project Coordination Team (PCT); - There is a need to Undertake the Regional capacity building in the LVB on water catchment; - There is need to consider reviewing the 1.3.1 since the LVBC already exists as a Transboundary Mechanisms. The output read as LVBC strengthened to promote Climate Resilient to cater for catchment management; - There is need to develop an Integrated Early Warning System for the LVB; - Consider reviewing item 1.3.2: - Review 1.3.3 by removing the specific action plan and maintain the overall	- Once the identification of all the activities have been finanlised then resources could be allocated accordingly - LVBC Secretariat needed to liase with the UNEP on the finalisation of the allocation of resources - More funding should be allocated to component 3 on some activities on the ground		- There is a need to consider funding for the Automatic Stations (Basin wide hydro-meteorological equipment (work with Safaricom on telemeters etc)

No	Is there any info that's missing in the **componets?**	How should the **allocation of resources** be at component level	What other elements need to be added/removed under the **Expected Outputs** Section of the Log frame	Are there any **indicative activities** that are missing or should be removed
	plan; - Under 1.3.1: Review on-going initiatives to build synergies identify gaps that need to be addressed under this programme			
2	**COMPONENT 2: Climate information and decision-making**			
	- There is need to explore possibilities of addressing both the long impacts of Climate Change Scenario as well as the addressing the Extreme Weather Events (droughts, floods, change of patterns); - There is need to consider and build upon the existing LVBC information hub	- Once the identification of all the activities have been finanlised then resources could be allocated accordingly - LVBC Secretariat needed to liase with the UNEP on the finalisation of the allocation of resources - More funding should be allocated to component 3 on some activities on the ground		
3	**COMPONENT 3: Climate Change Adaptations in Vulnerable Communities**			
	- There is a need to review the sentence: 3.1.1 and read: Apply/ use the lesson learned from passed and current LVBC programmes (LVWATSAN, LVEMP II, PREPARED) as well as from the Partner states to identify intrventions.	- Once the identification of all the activities have been finanlised then resources could be allocated accordingly - LVBC Secretariat needed to liase with the UNEP on the finalisation of	There is a need to review the expected output to include training and support { equipments, farm inputs etc)	

No	Is there any info that's missing in the **componets?**	How should the **allocation of resources** be at component level	What other elements need to be added/removed under the **Expected Outputs** Section of the Log frame	Are there any **indicative activities** that are missing or should be removed
	- Review 3.2.3 to read demonstracte/ piloting –conversations ….: - Consider switching 3.2.3 with 3.2.2.	the allocation of resources - More funding should be allocated to this component 3 on some activities on the ground		
4	**COMPONENT 4: Small Grants**			
	- Based on the experience, accountability and knowledge transfers need to be streghnened to the supported communities; - There is a need for the training to be provided to the groups before funding (financial management, etc)are dismbursed; - There is a need to re-phase 3.2.2 to read provide farm inputs/	- Once the identification of all the activities have been finanlised then resources could be allocated accordingly - LVBC Secretariat needed to liase with the UNEP on the finalisation of the allocation of resources - More funding may also be alocated be allocated to this component 3 on some activities on the ground; -	There is a need to have training as an output under this component	There is need to develop guideliens/ manuals for funding request (based on the experinec of other projects)
5	**COMPONENT 5: Knowledge management and learning**			
	- Support the development of user friendly knowledge products; - There is a need to produce climate change / Extreme weather events informations; -		Review Ouput 5.1: to read A platform sharing knowledge on adaptation in the LVB	- There is a need to provide technical support for the LVB; - There is need support the implementation of the LVB Knowledge Management Stategy (

No	Is there any info that's missing in the **componets?**	How should the **allocation of resources** be at component level	What other elements need to be added/removed under the **Expected Outputs** Section of the Log frame	Are there any **indicative activities** that are missing or should be removed
				focusing on the Climate Change Adaptation)

GENERAL COMMENTS ON THE PROPOSAL

- On the analysis on page 35: Kenya has the National Climate Change Action Plan with an adaptation component. There is also a NAP that can be shared with the LVBC.
- Under the PARIS agreement, there is a need to take cognizance of the member countries proposal on the Intended Nationally Determined Contributions (INDC) ;
- There is a need to consider establishing the Regional Policy Steering Committee;
- There is need for the Partner States to appoint Focal Points to coordinate the implementation of programme at National level;

PART 2:

Q1: Are there other stakeholders we need to include in this process?

There are number of stakeholders for the LVBC. These include:-

Key Stakeholders	Engagement Process	Roles and responsibilities
<u>State Actors and National Authorities</u> • Ministries responsible for Environment, Water & Natural Resources • Ministry responsible for the EAC Affairs • National Environmental Management Authorities (NEMAs), • Ministry of Agriculture and Food Security; • Regional Administration and Local / County/ Provisional Government; • Water Appeals/ National Water Boards / Water Resources Management Authority; • National Meterreological Services; •	Stakeholder analysis and engagement	• Formulation and harmonization of policies, strategies, regulations, guidelines • Enforcements of the effluent discharge standards; • Ensure food security, provision of extension services and related advice on sustainable agricultural production; • Development of Irrigation Infrastructure; • Co-ordinates planning of projects from local government authorities; • Management, regulation, allocation, protection and development of water resources; • Arbitration of water related disputes and conflicts; • Integrate inter-sectoral planning; • Regulation and monitoring of LVSWSB; • Setting standards for provision of water services; and • Developing guidelines for water tariffs; etc

Intergovernmental Organizations and Regional Authorities • EAC Secretariat • Lake Victoria Basin Commission (LVBC) • Lake Victoria Fisheries Organization (LVFO) • Nile Basin Initiative (NBI), • Indian Ocean Commission (IOC)-SmartFish, • COMESA, • SADC • IGAD • Global Water Partnership (GWP) • Food and Agriculture Organization (FAO)		• Collaborators • Experience sharing and lesson learning • Technical assistance
Non State Actors • Private Sectors entities (Industrial Processing Association, Water Users Association, Water and Sewage Companies), Beach Management Units (BMUs) • Civil Society Organizations – NGOs, CBOs etc • Lake Victoria Regional Local Authority Cooperation		• Capacity building and training • Information sharing • Service delivery • Investments
Beneficiaries • Farmers • Water Users • Public benefit organisations		• Ownership and influencing • up-take of information and technologies

Development Partners • European Union (EU), • KfW • African Development Bank (AfDB) • World Bank (WB) • UN-Habitat • US Agency for International Development (USAID-EA) • European Investment Bank • French Development Corporation (AfD)		• Funding • Technical guidance • Reviewing, Monitoring & Evaluation

Q2: For the National Implementing Entities (Kenya and Rwanda). Roles ??

- This may be a challenge for the all the Partner States to accept only the two countries entities provide technical support to other Countries; their role should therefore be limited within their countries;
    - Support other Parter States on the accreditation process;
    - Can be part of the Technical Experts of the Project Steering Committee;
- There is need for the other Partner States to provide Institutions from their Countries to provide technical support on the programme;

THE REPUBLIC OF UGANDA

REPORT OF THE CONSULTATIVE MEETING IN UGANDA ON THE ADAPTION TO CLIMATE CHANGE IN LAKE VICTORIA BASIN DETAILED PROJECT PROPOSAL

Held at: Climate Change Department Boardroom

Date: 15th July, 2016

1.0 Background and context:

The United Nations Environment Programme (UNEP) and the Lake Victoria Basin Commission (LVBC) are convening in-country consultations with the five partner countries in the Lake Victoria basin to gain input on the Adaptation Fund Regional Proposal development process for the lake basin. These workshops therefore provide an important opportunity and platform for the stakeholders to shape and provide guidance on planned adaptation activities for the proposed work on climate change adaptation and its relevance for the various affected communities. This national workshop will build on the results of a regional consultation that took place in June 2016.

The full proposal will form the third and final stage in the Adaptation Fund Regional Proposal Process prior to submission to the Adaptation Fund Board later in the year. A project concept has already been approved by the Adaptation Fund Board.

The proposed project has five components:

- Regional management of a transboundary water catchment
- Climate information dissemination
- Regional approach to climate change adaptation in vulnerable communities
- Community-based approaches to climate change adaptation
- Knowledge management and learning

Expected outcomes of the workshops:

- Validation of the logframe
- Identification of indicative activities
- Identification of relevant national initiatives with which the project should align
- Identification of key national stakeholders

The national consultative meeting for Uganda was held on Friday 15th July 2016, and brought together staff from various departments of the Ministry of Water and Environment (MWE). The meeting was also attended by Mr. Essey Daniel and Mr. Nicholas Tye (representatives of UNEP) and Mr. Fredrick Mnugube from LVBC. The attendance list is attached as an annex.

1.1 Opening Remarks

The opening remarks were given by Mr. Jackson Twinomujuni, the Commissioner for International and Transboundary Water Affairs (ITWA). He welcomed and thanked representatives of LVBC, UNEP and departments of MWE for turning up in the meeting. The commissioner informed the meeting that a draft project proposal for adapting to climate change in Lake Victoria Basin has been developed following the approval of the concept note on climate change adaptation supported by UNEP. The project is expected to cover transbounday issues of climate change within Lake Victoria Basin and on completion, the project proposal will be submitted for approval by the Adaptation Fund Board (AFB) in August, 2016 and hence the need for Uganda as an implementing partner to validate and approve the document.

1.2 Validation and approval of the components of the proposal

Mr. Daniel Essey and Mr. Fredrick Mnugube informed members of the meeting that a pre concept was developed by UNEB and was approved by AFDB leading to the development of the proposal which was also approved at a regional workshop held in Nairobi Kenya, hence the meeting was a follow up of the Nairobi workshop. He further told members that the proposal includes five components and each of them needed to be validated by each LVBC Partner State. However, he emphasized that the pilot project will cover the EAC region and will therefore, the need for broaden considerations while commenting on the document.

Mr. Daniel Essey from UNEP made a presentation, and the meeting held discussions component by component of the proposal as the presentation was made. The following table presents the comments that were from the discussions after consensus from all members.

Components	**Comments/Proposal**
1: Regional Management of a transboundary water catchment	a. Title be changed to: Strengthening of Institutional capacity in management of Transboundary catchments; b. National Climate Change Institution can perform the function of Capacity building on climate change issues
2: Climate Change Information Dissemination	a. Local communities should also be included as beneficiaries of the information b. MWE/CCD and the Uganda National Meteorological Authority can support in receipt of information and ensuring it's disseminated to the local communities. c. Include activity for climate information producers to generate appropriate area focus-information for the sub-catchments in the basin where climate change adaptation projects will be implemented
3:Regional approach to climate change adaptation in vulnerable communities	a. A clear definition of vulnerable communities should be provided in the proposal b. Criteria for prioritizing interventions should be included in the proposal. c. The proposal should draw from lessons leant on awareness from National Adaptation Programmes of Action (NAPAs) of Partner States where applicable
4: Community-based approaches to Climate Change Adaptation	a. Implementation arrangements for community based projects need to be clearly defined to enable timely and effective implementation.
5: Knowledge Management and learning	a. The type of knowledge and information to be shared regionally should be clearly defined, and regional data sharing agreements may need to be signed.

1.3 Implementation Arrangements and Follow up actions

Mr. Daniel Essey thereafter presented the proposed implementation arrangements for the project and agreed as follows;

- UNEP shall provide Partner States with the Terms of Reference for each of the proposed implementing institutions;
- There need to have a lean coordinating unit at LVBC for the project instead of providing for a full project office since there already structures set up with in LVBC for project implementation
- It is too early to come up with stakeholders to be included in the National Project Teams considering that the proposal is not yet concluded and therefore determine the relevant institutions, organizations and individuals to constitute the National Project teams.

1.4 Way forward

The Commissioner Water ITWA will share with UNEP and LVBC representatives the tentative list of stakeholders/institutions beside Ministry of Water and Environment that have to be considered.

ANNEXES

PROGRAMME

Time	Session	Presenter/facilitator
08.30 -09.00am	*Arrival and registration*	
09.00-09.30am	Welcoming remarks and introductions	Director/DWRM
09.30 -09.45am	Introduction to the workshop: • Main objectives and expected outcomes • Overview of the project proposal development to date	UNEP
09.45-10.05 am	Overview of Lake Victoria Basin Commission	LVBC
10.05-10.30am	*Tea/ Coffee Break*	
10.30-11.00 am	Overview of project logframe	UNEP consultant
11.00-01.00 pm	Discussion of project logframe • Indicative activities • Indicative intervention sites • Key stakeholders • Other initiatives • Potential risk/threats • Sustainability	UNEP/LVBC
01.00.01.15 pm	Next steps and closing remarks	UNEP+Director

MINISTRY OF WATER AND ENVIRONMENT

CLIMATE CHANGE DEPARTMENT

LVBC / UNEP MEETING HELD AT CCD BOADROOM ON 15/07/2016

Attendance List

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	ESSEY DANIEL	UNEP	essey.daniel@unep.org	
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LIST OF PARTICIPANTS

MINISTRY OF WATER AND ENVIRONMENT

CLIMATE CHANGE DEPARTMENT

LVBC / UNEP MEETING HELD AT CCD BOADROOM ON 15/07/2016

Attendance List

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MINISTRY OF WATER AND ENVIRONMENT

CLIMATE CHANGE DEPARTMENT

LVBC / UNEP MEETING HELD AT CCD BOADROOM ON 15/07/2016

Attendance List

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MINISTRY OF WATER AND ENVIRONMENT

CLIMATE CHANGE DEPARTMENT

LVBC / UNEP MEETING HELD AT CCD BOADROOM ON 15/07/2016

Attendance List

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7.	Anastasia Namuli	MWE/ CCD	mygreenuganda@gmail.com	
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KENYA **NATIONAL CONSULTATION MEETING FOR DEVELOPMENT OF CLIMATE CHANGE ADAPTATION PROJECT PROPOSAL FOR LVBC HELD ON 14TH JULY 2016 HELD AT THE NATIONAL CLIMATE CHANGE RESOURCE CENTRE**

Members present

Julius Mwabu	Min of EAC - Chair
Wilson Lekoomet	RCGWR
Michael Okumu	MENR-CCD
Jepi Lentoijoni	LECRD
Stephen Kinguyu	MENR-CCD
Nicholas Tye	UNEP
Essey Daniel	UNEP
Fredrick Mugube	LVBC
Thomas lelekoitien	MENR-CCD
Benjamin Kibor	MoALF- SDL
David Adegu	MERN-CCD
Muriithi Cynthia	MENR-CCD
Veronica Kioko	MENR-CCD
Joyce Jelagat	MENR-CCD
Peter Omeny	MENR-CCD

Agenda

1. Welcoming remarks and introductions
2. Introduction to the meeting:
    - Main objectives and expected outcomes
    - Overview of the project proposal development to date
3. Setting the scene – Overview of Lake Victoria Basin Commission
4. Overview of project log frame
5. Discussion of project log frame
    - Indicative activities
    - Indicative intervention sites
    - Key stakeholders
    - Other initiatives
    - Potential risk/threats
    - Sustainability
6. Next steps and closing remarks

Welcome remarks and introduction to the meeting

The meeting started with brief self-introduction by all the members present. The chair welcomed all the members and thanked them for getting time to attend the meeting. He welcomed the participants who travelled from outside Nairobi. The chair briefed the meeting on the regional meeting held on 7th and 8th June 2016, which was a regional meeting to discuss proposal. In attendance were representatives from UNEP, Lake Victoria Basin Commission and relevant government technical line ministries officers. The outcome of this meeting was to allow for national inputs into the proposal before its finalized. He requested the members to actively participant in the proceedings.

LVBC and its contribution to the Lake Victoria Regional Project Proposal

Fredrick from LVBC highlighted that LVBC through PREPARED project have conducted vulnerability assessment of LVB region to get vulnerability hotspots, a total of 17 hotspots have been identified. This project will enable LVBC to address adaptation issues among the vulnerable communities within these hotspots areas in the region. He emphasized that the proposal has already gone through 1st and the 2nd stages and its now on its last stages.

The team has already held the national consultation meetings in Tanzania, Rwanda, Bujumbura and Uganda will be visited immediately after this meeting. He reiterated that each Partner State would have to write endorsement letters and send to the MIE as a procedural requirement for the Adaptation Fund. This meeting was to discuss the log frame and come up with recommendations/ suggestions that will further improve the proposal. He commended the government of Kenya for the support and warm welcome and encouraged the team to provide inputs to improve on the proposal.

Introduction to the workshop

Nick Tye, the proposal development consultant gave an overview of the project proposal. He informed the meeting that of the 12 concepts notes send to the Adaptation Fund board, this was the only successful project that got the green light to proceed to the next level. He underscored the expected outcomes of the workshop, which were to;

1. Validation of the log frame
2. Identification of indicative activities
3. Identification of relevant national initiatives with which the project should align
4. Identification of key national stakeholders

The chair thanked the team for the brief overview and expressed his gratitude for the success of the concept and the approval by the Adaptation Fund.

Discussion of the Project log frame

Nick gave a brief overview of the log frame. He acknowledged that LVBC and UNEP in collaboration with partner states have worked together in developing the draft proposal. The workshop was to provide an important opportunity and platform for Kenya to shape and provide guidance on proposed adaptation activities. He emphasized the five project components, which are;

Component 1; Regional management of a transboundary water catchment

Component 2; Climate information dissemination

Component 3; Regional approach to climate change adaptation in vulnerable communities

Component 4; Community-based approaches to climate change adaptation

Component 5; Knowledge management and learning

The outputs and outcomes should be measurable and achievable based on the following guiding principles of the project:

- Participatory process
- Multidisciplinary approach

- Support to sustainable development
- Gender equality
- Country driven
- Promotion of sound environmental management
- Cost effectiveness
- Simplicity

After deliberating on the log frame the following issues were raised and addressed;

The word equal should be replaced with fair share of the funds to ensure that all partners are contented especially for component 1,2 and 5. Consultant clarified to the team that the equal sharing of resources only refers to components 3 and 4.

LVBC as the implementing agency will determine the best criteria for fair distribution of resources among the five partner states.

The consultant clarified to the meeting that a funding mechanism and a clear resource allocation structure would be developed.

Due to the limited funding this project will be more of a pilot. The lessons from this proposal will be used to generate bigger project in the future.

It was suggested that early warning equipments should be included in component 2 of the proposal. In response it was noted that the issue was initially being considered, but the project being a pilot, the funds will be inadequate for capital-intensive activities like purchase of these equipments. The states were advised to therefore utilize available equipments.

The meeting agreed that strengthening of weather information dissemination from the source to the local communities should be underscored through national entities. This was a common concern that was raised by all partner states as a gap.

It was suggested the term county should be used alongside districts to also capture the new administrative units in Kenya.

The issue of fisheries is not coming out strongly in the proposal despite the fact it supports many livelihoods at the basin. This should be considered in the proposal. However this is expected to be captured during community prioritization of their activities. This should also be captured in component 1, to ensure that information of climate change vis a vis fisheries is captured in the section.

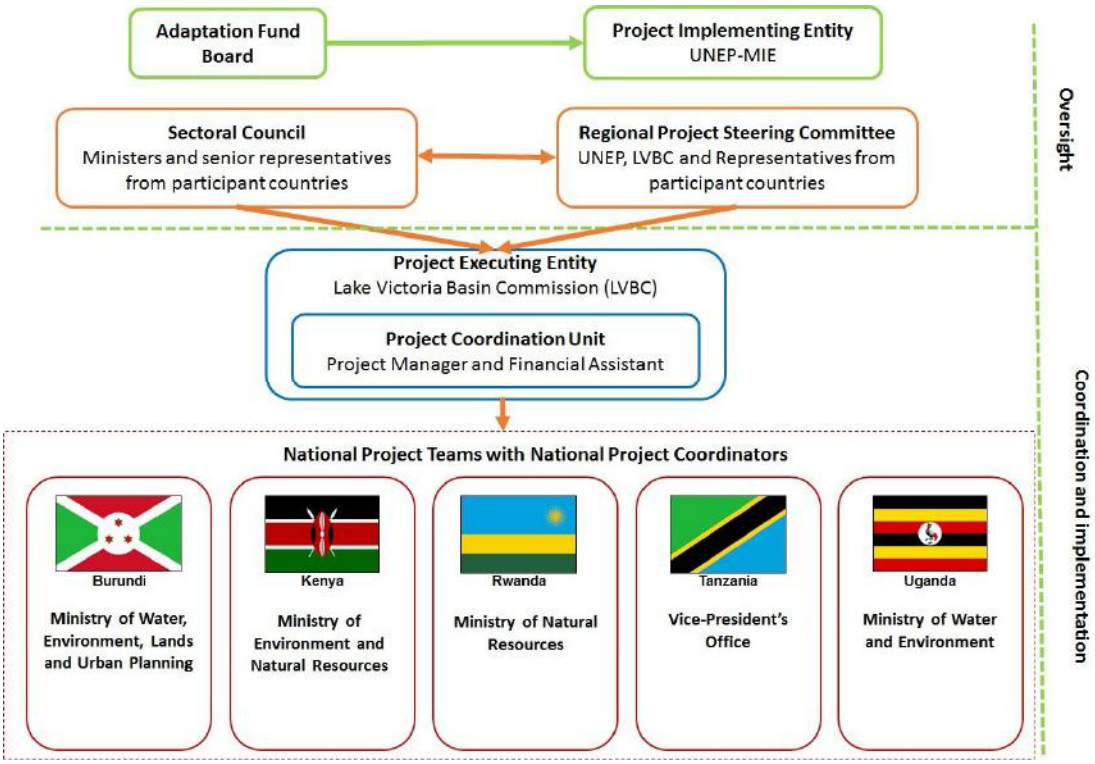
The meeting discussed success stories in implementation of small grants within communities with the objective of learning the best practice as was implemented by several institutions. The options agreed upon were to use either empowered community project implementation committees, CBO's and local NGOs for implementation at the grassroot level.

Budget

The meeting was informed that the total budget for the project is $ 5 Million. It was agreed that the funds should be directed to concrete visible projects that will have direct positive impacts to the vulnerable communities, hence the need to redirect more funds to component 3 and 4.

Implementation modalities

On the implementation structure, the meeting agreed that the ministry of environment and natural resources should be the lead in the country. The consultants presented the following implementation structure for the project;



After deliberations, the meeting agreed on the above structure without any major changes. The meeting also agreed on the need to fastrack the sending of endorsement letters to UNEP preferably before the validation meeting that will be on 26th July 2016. UNEP will share the template to the Partner States.

Closing remarks

The chair thanked the participants for their active engagement and participation throughout the meeting.

There being no other business the meeting was adjourned at 13.30 PM by the Chair.

MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES

National Consultation Meeting to Develop Adapting to Climate Change in Lake Victoria Basin Detailed Project Proposal

Thursday 14th July 2016.

No.	Name	Organisation/Institution	Telephone	Email	Signature
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MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES

National Consultation Meeting to Develop Adapting to Climate Change in Lake Victoria Basin Detailed Project Proposal

Thursday 14th July 2016.

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7.					
8.					
9.					
10.					

Meeting with Rwanda – 11 July 2016

General comments:

- Make sure that the project design is aligned with the relevant and up-to-date national strategies, including INDC and Green Growth and Climate Resilience Strategy.
- Make sure that the project is aligned with ongoing initiatives. Some initiatives to take note of include:
  - Darwin Initiative – EbA project
  - AF project on reducing vulnerability
  - Climate Resilience Altitudinal Gradient – Lake Kivu – have developed a CC implementation plan.
  - LDCF 1
  - LDCF 2
- It may be difficult for a small grants programme to function in Rwanda – funds are generally not channelled in this manner. FUNERWA does not fund projects less than $200,000.
- Make sure that we include specific numbers (e.g. of people trained) as targets in the results framework.
- Include CSOs in the training activities.
- Make sure that a detailed budget is produced.
- Reduce budget allocated towards assessments etc., many of these have already been completed. Build on the results of other projects. Rather use words like 'stocktake' to demonstrate that it is a minor study.
- There have been a lot of studies/assessments/vulnerability analyses completed. However, this information has not been collated and coordinated. Collation and coordination in required when developing a regional approach to adaptation. Therefore this project will undertake 'stocktake' exercises to organise this information. But it will NOT undertake new assessments. This should be made clear.
- Throughout the logframe, consider simplifying and reducing the number of activities. We should not be too ambitious in a pilot project.

Specific comments:

Component 1:

- Consider rewording the component title. It sounds like on-the-ground interventions. Perhaps: "Strengthening the **r**egional management of a transboundary water catchment".
- Output 1.1: Use the word strengthen rather than establish – build on existing structures.
- 1.1.1: Some capacity assessments have already been conducted so build on these:
  - Study on IWRM at Nile River Basin level conducted by GWP.
  - Nile Basin Initiative (NBI) has also done some studies to be consulted.
- 1.1.4: projects in the pipeline to do this – Dutch-funded project so be aware of these efforts.
  - 1.1.3/4. Need to broaden the number of institutions targeted and include a focus on water management institutions – not just CC. The outcome is about improved transboundary water management. E.g. Kagera Management Authority – Rwanda/Burundi/Tanzania.
- 1.1.5: strengthen not develop.
- Reassess the budget for Outcome 1.
- Discussion: There is value in setting up information-sharing/management frameworks in the basin e.g. Rwanda has 5 transboundary catchments but not all of them have frameworks. We could therefore add value by developing these frameworks, and by operationalising existing frameworks and action plans. However, this is a pilot project and these frameworks could take time to establish.
- 1.2.4: could be moved to the national activities under component 3 and 4.

Component 2:

- 2.1.1. May be unnecessary as PREPARED has undertaken these assessments.
- It is suggested to merge activity 2.1.1 – 2.1.3. into a single activity, and to make sure that it builds on the work done through other projects.
- Remove LVBC CC unit from 2.1.2.
- There may already exist a framework for information exchange within the EAC – to be confirmed.
- Rwanda position on Component 2: There already exists climate information dissemination at the regional level. The gap is the dissemination of climate information from national met agencies to local communities. Therefore Rwanda suggests that the focus of Component 2 should shift towards the dissemination of climate information from national met agencies to local communities, because this will have a greater impact on reducing their vulnerability.
- Reduce the number of activities so that the focus can be on information dissemination.
- Include national met services in the capacity building exercises.
- Consider adding an activity about the extending the training that met services received in GEOCLIMA. In particular, focus on training in GEOCLIMA that allows met services to downscale regional forecasts to national forecasts. There is a greater need for national data than for regional data.
- In Output 2.3, consider developing tailored national forecasts too. This is because there are different circumstances in each country which change the type of information required.

Component 3:

- LVEMP II can be used as a guide for selecting appropriate adaptation interventions.
- 3.1.1 – 3.1.3: many of these assessments have already been undertaken. In Rwanda, this should not be done as a full assessment but rather they will be able to determine sites and intervention activities internally.
- 3.1.1 – 3.1.3 – consider merging into a single activity.
- Try and be more specific in the activities, at the moment they are perhaps too broad.
- 3.3.1 – Rwanda's water policy… specifies that water catchment management needs to follow a catchment management plan. This will need to be elaborated in the project document.

Component 4:

- 4.1.1: Suggest that the criteria should be consistent across the region.
- Gender equality should be an important criterion – projects should focus on vulnerable women and children.
- FONERWA has project selection criteria which should be built upon.
- FONERWA has a minimum of $200,000 which should be spent on an adaptation project. Therefore Rwanda will have to consider if a small grants programme will work in the country.
- Consider removing Output 4.2, or moving it to Component 5. Money should be focused on on-the-ground interventions.

Component 5:

- Include the development of a communications strategy for the knowledge collected under Component 5. It should detail how the project will work with the media. This could include:
  - Documentaries
  - Internet communication
  - Social media
  - Media in general
- Look at examples of communication strategies for other projects in Rwanda for ideas.

- Include details on the number of workshops, etc. that will be conducted.
- For Output 5.1: such a forum may exist. For example, RAMSEA (RAMSAR for East Africa). We should build on existing forums.
- Focus on innovative approaches to information dissemination, don't simply rely on workshops. This could include:
    - Side events at AMCEN
    - Side events at UNFCCC events

Implementation Arrangements:

Regional arrangements:

- Happy with the presented structure.

National arrangements:

- Likely to be implemented through their NIE – Ministry of Natural Resources.
- The name of the ministry presented in the diagram is outdated; should be Ministry of Natural Resources.
- Rwanda will send a draft of their national implementation arrangements.

REPORT OF THE NATIONAL CONSULTATIVE MEETING HELD ON 8TH JULY, 2016 AT THE MINISTRY OF FOREIGN AFFAIRS AND EAST AFRICAN COOPERATION

1.0 INTRODUCTION

1.1 Background

1.2 Convening of the workshop

The meeting was convened at the Ministry of Foreign Affairs and East African Cooperation, Dar Es Salaam, on 8th July, 2016 as one of the national consultative meeting for the preparation of a detailed Project Proposal on Climate Change Adaptation for Lake Victoria.

1.3 Constitution of the Bureau

Mr. Eliabi Chodota, Ag. Director Economic Infrastructure and Social Support Services, Ministry of Foreign Affairs and East African Cooperation chaired the meeting while **Ms. Dorah Neema, and Community Development Officer,** Ministry of Foreign Affairs and East African Cooperation was the Rapporteur of the meeting.

1.4 Participation

The meeting was attended by key Stakeholders including representatives from President's Office – Regional Administration and Local Government, Vice President's Office, Ministry of Water and Irrigation, Ministry of Foreign Affairs and East African Cooperation, Ministry of Natural Resources and Tourism, Ministry responsible for Agriculture and Fisheries and Fisheries and Attorney General Chambers.

Representatives from Lake Victoria Basin Commission Secretariat and UNEP also attended and facilitated the meeting.

1.5 Purpose of the Meeting

The purpose of the meeting is to collect stakeholders' view and comments on the draft Project Proposal that will assist in the finalisation of the draft Proposal

2.0 Technical Comments on the Draft Project Proposal

Mr Fred Mngube, Environmental and Natural Resources Officer, LVBC Secretariat gave a background of the Draft proposal and stages that has undergone todate. He further explained that LVBC and UNEP were shortlisted to prepare a detailed proposal for the Climate Change Adaptation Project around Lake Victoria Basin.

The Consultant, Mr Essay made a presentation of the draft Project Proposal particularly on the Log- frame. After presentation, stakeholders made the following recommendations:

a) It is important to mention total cost of the Project cost and how much would be allocated to the implementation of activities on the ground;
b) There is no need to establish an institutional framework under the new Project, rather LVBC which is an Institutional of EAC coordinate the Project. Further at National level, implementation arrangement should follow the existing structure and mandate of each Ministry/ Institution;
c) All relevant Ministries and Departments should be included in the implementation of this project. The Ministries are: Presidents office, Regional Administration and Local government Authorities , Vice Presidents Office, Ministry of Water and Irrigation, Ministry of Natural Resources and Tourism, Ministry of Agriculture, Livestock and Fisheries, Ministry of Land, Housing and Human Settlement Development, Tanzania meteorological Agency, Ministry of Health, Community Development, Gender, Elderly and Children;
d) Show links to the Tanzanian climate change related documents including , NAPA,INDC which highlights lists of adaptation activities in all sectors including the water sector;
e) Need a clear structure/mechanism to select small grant recipients. In Tanzania Local Government Authorities should be used for this.
f) The Project should not duplicate effort already made by other Projects such as LVEMP II, PREPARED and LVWATSAN. The Project should benefit new areas located within the Basin;
g) Need to define the word Transboundary Water catchment in order to have clear and harmonised definition;
h) Explanation given: the different adaptation techniques describe match the main CC risks identified. Decreasing rainfall mean that we should implement water conservation interventions. Variable rainfall means that we should implement climate-smart agriculture. Deforestation means that we should implement EbA.
i) Implementation of this Project should be in line with the EAC Treaty and should not create parallel systems and structure;
j) Implementation arrangement of this Project should be clear.
k) Local Government Authorities will be the implementers – or will contract NGOs etc in Component 4. There is precedence for managing projects in this way in Tanzania. and
l) VPO will manage and report on the funds, then transfer to LGA.

2.1 Specific comments:

Component 1:

- 1.1.3: Due to limited budget there is no need to establish a Climate Change Unit at LVBC
- 1.1.1: Should build on the needs assessments conducted by other projects, such as LVEMP, PREPARED and LWATSAN.
- 1.1.5: The activity does not link clearly enough to the Output. Need a clear activity that delivers the output.

- The budget for Outcome 1 should be reduced and be put under component 4.
- Consider merging 1.1.4 'capacity-building at national level' with 1.2.2 'training at national level'.

Component 2:

- Some of the activities (particularly assessments) have already been conducted by FEWSNET, ICPAC therefore reduce the budget for this outcome further. The position of Tanzania is that the budget for Outcome 2 should be reviewed and further reduced if possible and funds be relocated to Outcome ¾ for better results.
- Very relevant to capture and share information, but activities don't necessarily speak to this. For example "synthesise in 2.3.1 sounds like a once-off event. Instead the outcome should improve the capacity of staff to do this in a sustainable manner. Therefore perhaps remove this activity or reword to make it clear.
- 2.3: Need to include District officers or extension officers in the implementation of the Project.

Component 3:

- 3.3.1 – 3.3.3: There is no need to be very specific in the adaptation activities. Keep the activities broad enough to match with local circumstances. For instance, keep them broad enough to include aquaculture.
- Make use of the PREPARED criteria to select sites – they were useful. Also consider criteria from National Climate Change strategy, NAPA, Tanzania economic study (National Bureau of Statistics), INDC.
- 3.1.3 – Tanzania has good existing structures to build on.
- 3.1.1 – local stakeholders should be included in site selection.
- EAC technical group will assist with site selection.
- Partner should be included in 3.1.3.
- Awareness of CC risks should be included as a criteria for site selection.

Component 4:

- Consider removing activity 4.1.5. It is redundant.
- 4.1.4: Should be changed to "small grants projects" or something similar instead of "innovative water management".
- Local Government Authorities very important in this component as they will be the ones responsible for planning and budgeting these activities.
- TASAF Was a programme that worked with LGAs in this way and it was successful. We should build on these existing structures.
- Criteria for selecting projects should be clearly be established through the nvolvement of Local Government Authorities.

Component 5:

There is a need for clarify on the word Public private partnerships:
For Tanzania, they already have PPP with WWF, IUNC and others;

At regional level, there is Identify other regional private sector partners to understand how to promote CC adaptation regionally.

Implementation Arrangements:

Regional arrangements:

- There is a need for clarify on the roles of different stakeholders including UNEP and LVBC;
- Roles of different stakeholders should be clearly defined like for Tanzania VPO is responsible for Climate Change activities. However when it comes to implementation at District levels, Local Government Authorities are responsible for implementation;
- Further, the Roles of Ministries of EAC should clearly be stated in the detailed Proposal as they were established to coordinate EAC activities at the Partner States level and the roles of Ministries responsible for Water should also clearly mentioned.

Lastly the participants urged LVBC Secretariat to share the final detailed proposal which has incorporated comments from all the five Partner States. Further, UNEP informed the meeting that, they are planning to conduct a Regional Validation meeting in late July, 2016 whereby all Partner States will be involved in validating the final draft. The meeting was officially closed at 4.02 PM.

Burundi consultation meeting to develop Adapting to Climate Change in Lake Victoria Basin detailed Project Proposal.

Bujumbura, July 12th, 2016.

Minutes.

Introduction.

Burundi consultation meeting done as planned on Tuesday12 th, 2016 at Bujumbura and started at 1: 00 PM according request from LVBC and UNEP staff who land at Bujumbura airport same day around 10: 00 morning.

Mr Essey Daniel Associate Programme Officer in Climate Change Adaptation Unit in United Nations Environment Programme and the Consultant start by visit to Permanent Secretary of Ministry of Water, Environment, Lands and Urban Planning and talk about the project also another opportunity regarding ongoing design project for region including Burundi. The Permanent Secretary appreciate a lot of efforts done by UNEP and LVBC and encourage them to proceed ahead.

Burundi Consultation meeting.

The meeting started by welcome remarks provided by Host and Guest of honor. Mr Emmanuel SINDAKIRA Director in charge of Production Sector in Ministry of East African Community Affairs provides welcome remarks and an overview about LVBC also achievements in riparian East African states countries. He congratulates and encourages LVBC and UNEP for action taken in climate change adaptation project design and implementation.

Mr Essey Daniel as UNEP Representative for this activity make remarks regarding his presence in Burundi. It is for national consultation meeting a continuation action started at the UNEP office on 7 and 8th June 2016 during a regional consultation meeting, he said.

He highlights full background and context of adaptation fund Lake Victoria Regional Project Proposal through partners countries consultations. These workshops therefore provide an important opportunity and platform for the stakeholders to shape and provide guidance on planned adaptation activities for the proposed work on climate change adaptation and its relevance for the various affected communities. The national consultations are contributions of the regional one held in Nairobi mentioned above. He concludes by highlighting the project components and expected outcomes of the workshop.

The meeting was officially opened by Mr Simon Sindayihebura, the Permanent Secretary of Ministry of Water, Environment, Lands and Urban Planning. He thanks UNEP and LVBC team, all participants for having responded the invitation despite their busy scheduled and other commitments to explain for Burundi needs facing climate change adaptation. He emphasized the vulnerability that Burundi communities in some area facing means that interventions are

very necessary. Following the speech he focus on the work done from regional consultation up to the national levels, contributions made, inputs and project value according countries needs. The Permanent Secretary make an overview of the five project logframe, components, expected outcomes, outputs, indicatives activities and call upon the participants to provide necessary inputs according country needs. He concludes by Burundi promise to support the process and effective project implementation in Burundi. He wishes fruitful contributions and proceed officially opening the national consultation meeting.

Presentations.

1. ***Main objectives and expected outcomes, overview of project proposal development to date.***

Mr Essey Daniel make a presentation on five the project components and provide comments about the project in global also country expectations in particularly. The five Components:

- Regional management of a transboundary water catchment
- Climate information dissemination
- Regional approach to climate change adaptation in vulnerable communities
- Community based approaches to climate change adaptation
- Knowledge management and learning

Mr Daniel focus on expected outcome of meeting, UNEP and LVBC needs for countries the following actions:

- Validation of logframe
- Identification of indicative activities
- Identification of relevant national initiatives with which the project should align
- Identification of key national stakeholders.

He concludes by suggesting to the participants to explain if Burundi agreed to proceed ahead with the project, to focus on countries priorities and implementation structure.

2. ***Overview of project logframe.***

The consultant make a presentation overview on project logframe, he focus on expected outcomes and expected outputs because he need contributions from participants about indicatives activities when they have understand very well outcomes and outputs. Participants raised some questions:

- Point out some similarities about outputs 2.2 and 2.3,
- Raise how to improve communication from high level to local level,
- Difference between PREPARED project and Climate change adaptation project proposal
- How Budget will be shared through countries components.

The consultant supported by Daniel and Burundi participants in regional consultation respond all issues and provide more informations about the project proposal.

Discussions of project logframe.

Participants opt for groups work in way to get enough contributions to the logframe, they focused on indicative activities who were been improved according countries needs. The contributions made are **in red colour** in table below.

Project Components	Expected Outcomes	Expected Outputs	Indicative activities	Countries	Amount (US$)
1. Regional management of a transboundary water catchment	1. Strengthened institutional and technical capacity to integrate climate resilience into transboundary water catchment management.	1.1. Transboundary institutional framework established tosustain a climate-resilient approach to water catchment management. *This framework will propose the most effective method to ensure the sustained flow of information between the following:* • *Projects and organisations collecting climate data within the LVB.* • *Regional climate information platforms.* • *Experts and technical staff responsible for water catchment management and climate change adaptation.* • *Regional policy and decision-makers.* • *National policy and decision-makers.*	1.1.1. Conduct needs assessment within regional and national institutions to identify capacity gaps to plan, implement transboundary water catchment management. Emphasizing for forestry 1.1.2. Compile a review of best practice in transboundary water catchment management based on international research and experiences from projects active within the LVB. Combine 1.1.1 and 1.1.2. followed the same outcomes. 1.1.3. Undertake regional capacity-building exercises in water catchment management in the context of climate change in organisations including *inter alia* the: i) LVBC Climate Change Unit; ii) EAC Climate Change Technical Working Group; iii) EAC Climate Change Unit; iv) Lake Victoria Region Local Authority Cooperation; and v) Joint Technical Committee of the Mara River Basin.Why Mara?? Proposed Kagera who involved Burundi, Rwanda, Tanzania and Uganda Whereas Mara is only Tanzania and Kenya. National Environment and Climate change commissions. Based on achievements done by GWPEnA in transboundary aspects Burundi and Rwanda also for Ugnanda and Kenya.	Burundi, Kenya, Rwanda, Tanzania and Uganda	540,000

			1.1.4. Undertake national capacity-building exercises in water catchment management in the context of climate change in relevant national ministries – for example the Ministry of Water, Environment, Lands and Urban Planning (Burundi) also Ministries working within water sector as well as Agriculture and Livestock, Energy and Mines, Transport, Industries, the Ministry of Environment, Water and Natural Resources (Kenya) and the Ministry of Lands, Environment, Forestry, Water and Mines (Rwanda) – that interface with regional organisations identified in Activity 1.1.1.		
			1.1.5. Develop a transboundary institutional framework for climate-resilient approach to water catchment management that promotes the sustained flow of information between the following: i) projects and organisations collecting climate data within the LVB; ii) regional climate information platforms; iii) experts and technical staff responsible for water catchment management and climate change adaptation; and iv) regional policy and decision-makers.		
		1.2. Training provided to government ministries and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment	1.2.1. Develop/revise training material on climate change adaptation and water catchment management.		
			1.2.2. Provide training on climate change adaptation and water catchment management at the regional level to		

		management.	national government representatives.		
			1.2.3. Provide training on climate change, climate change adaptation and water management at national workshops which will include civil society, NGOs and the private sector. Involve gender and youth.		
2. Climate information dissemination	2. Improved delivery of accurate and timely climate information to regional and national policymakers, technical officers and local communities.	2.1. Stocktake of end-to-end EWS and climate-monitoring initiatives to identify gaps between the recording of climate data to the delivery of tailored climate forecasts.	2.1.1. Review and updated of current climate-monitoring initiatives and EWS in the LVB, with an emphasis on transboundary water catchment management.	Burundi, Kenya, Rwanda, Tanzania and Uganda	500,000
			2.1.2. Identify opportunities for complementarity with current climate-monitoring initiatives and regional organisations such as ICPAC, FEWSNET, RCMRD and the LVBC Climate Change Unit.		
			2.1.3. Conduct a needs assessment of the climate information required for regional and national decision-making. Comments: Points 2.1.1. and 2.1.2. the regional must focus on countries basically Burundi according needs because regional organizations mentioned in 2.1.2 has more possibilities for fundraising.		
		2.2. Information dissemination mechanism strengthened to deliver climate information to be used in seasonal and long-term planning	2.2.1. Convene a workshop with existing climate information producers within the LVB – including ICPAC, FEWSNET, RCMRD – to identify cost-effective means of strengthening existing climate information dissemination mechanisms.		
			2.2.2. Strengthen existing climate information dissemination mechanisms – including the LVBC information hub – to		

			develop an LVB-specific platform for climate information.		
		2.3. Climate information and forecasts delivered to national policymakers, LVBC technical officers and local communities in tailored media/information productsto guide both operational and long-term strategic planning.	2.3.1. Synthesise, process and generate climate information according to the needs of stakeholders targeted in Output 2.1. Need to use communication network.		
			2.3.2. Develop tailored climate information packages for targeted beneficiaries.		
			2.3.3. Deliver climate information for operational and long-term strategic planning to policy and decision-makers in regional organisationsas well as technical staff in national ministries within the LVB through information dissemination mechanism developed in Output 2.2.		
			2.3.4. Capacity building and training for relevant organisations ensuring a proper understanding and dissemination of the climate information delivered through the information platform. Capacity building about data collection in water sector.		
3. Regional approach to climate change adaptation in vulnerable communities.	3. Climate change adaptation technologies transferred to communities to reduce their vulnerability to climate change.	3.1. Project intervention sites and appropriate adaptation technologies identified.	3.1.1. Apply findings/lessons learned from past and current LVBC programmes (LVWATSAN, LVEMP II, PREPARED, NELSAP, ADB, Biodiversity projects , TAMP Kagera based on Vulnerability Assessment) to identify potential project intervention sites, with a particular focus on the water quality and accessibility.	Burundi, Kenya, Rwanda, Tanzania and Uganda	1,700,000
			3.1.2. Conduct baseline surveysin selected project interventions sites to identify locally-appropriate climate		

			change adaptation technologies, including water conservation practices, climate-smart agricultural techniques and EbA activities. Outcome must be an implementation of a pilot project.		
			3.1.3. Undertake participatory mapping with communities in the project sites to identify specific areas for on-the-ground activities.		
		3.2. Extension officers and local communities trained on climate change adaptation technologies including water conservation practices, climate-smart agricultural techniques and EbA activities.	3.2.1. Train extension officers and local community members at selected intervention sites on water conservation practices, climate-smart agricultural techniques and EbA activities.		
			3.2.2. Establish demonstration sites for climate change adaptation technologies at selected intervention sites.		
			3.2.3. Organise information exchange visits where people from communities surrounding the project intervention sites are exposed to the climate change adaptation technologies.		
		3.3. Climate change adaptation technologies demonstrated at selected project intervention sites.	3.3.1. Implement water conservation practices, for example the construction of micro-scale water harvesting infrastructureat selected intervention sites in each of the five target countries.		
			3.3.2. Implement climate-smart agricultural techniques, for example by introducing drought-tolerant crops with early maturation, at selected intervention sites in each of the five target countries. Sensitization and implement new cases		

			of technologies		
			3.3.3. Implement EbA activities, for example agroforestry, at selected intervention sites in each of the five target countries.		
4. Community-based approaches to climate change adaptation	4. Regional resilience to climate change promoted through innovative, community-based projects.	4.1. Small-scale projects funded to promote innovative approaches to climate change adaptation.	4.1.1. Develop selection criteria, building on the work carried out by CCDARE, and invite project proponents to submit proposals for small-scale, innovative climate change adaptation projects through national networks.	Burundi, Kenya, Rwanda, Tanzania and Uganda (all LVB countries)	1,150,000
			4.1.2. Review of project proposals and selection of successful project proponents. Projects sustainability of activities mentioned in 3.1.1.		
			4.1.3. Provide training to selected project proponents on the necessary financial, administrative and monitoring procedures for each small-scale project.		
			4.1.4. Implement innovative water management projects through project proponents.		
			4.1.5. Provide regular technical assistance to small-scale projects, including field site visits.		
			4.1.6. Undertake monitoring and evaluation of small-scale projects to provide information for Output 4.2. Combine 4.1.5 and 4.1.6. and improve monitoring and evaluation, support small scale projects.		
		4.2. Upscaling of innovative approaches promoted through community-based organisations and district-level	4.2.1. Synthesise results of small-scale projects.		
			4.2.2. Hold awareness-raising campaign in local communities to showcase the results of successful projects.		

		agencies.	4.2.3. Hold workshops with district and regional government offices to promote the upscaling of successful adaptation practices by showcasing the results of successful projects. Promote cookstoves, support private initiatives in climate adaptation as soon as possible Increase capacity building workshops.		
			4.2.4. Formulate a mechanism for leveraging and mobilising additional resources to support the upscaling of successful approaches to adaptation in the LVB.		
5. Knowledge management and learning	5. Improved knowledge management frameworks for the collection and maintenance of regional knowledge in transboundary water catchment management and climate change adaptation practices.	5.1. A forum established to promote the collaboration of research initiatives across the Lake Victoria Basin, with a focus on adaptation to climate change.	5.1.1. Hold regional workshops with researchers and technical experts to plan interdisciplinary research projects on climate change adaptation and water catchment management.	Burundi, Kenya, Rwanda, Tanzania and Uganda (all LVB countries)	318,489
			5.1.2. Establish a forum of researchers and technical experts working on climate change adaptation to coordinate climate change research initiatives across the LVB.		
		5.2. Awareness-raising campaign to share lessons learned with stakeholders, ranging from policy- and decision-makers to vulnerable communities in the Lake Victoria Basin.	5.2.1. Produce awareness-raising materials on water management and climate change adaptation.		
			5.2.2. Undertake awareness-raising campaigns for vulnerable communities to share lessons on water management and climate change adaptation.		
			5.2.3. Distributeawareness-ra ising materials– translated into local languages where appropriate – topolicy		

			and decision-makers in national ministries and regional organisations to raise awareness on transboundary water management in the context of climate change and lessons learned from adaptation interventions demonstrated through Component 3 and 4.		
			5.2.4. Host an exhibition to showcase the successful regional and community-based approaches to climate change adaptation demonstrated through Component 3 and 4.		
		5.3. Regional public-private partnership agreements developed to promote climate-resilient management of natural resources.	5.3.1. Develop public-private partnerships between regional, non-government stakeholders focused on the climate-resilient management natural resources, including *inter alia* IUCN, WWF, VIA Agroforestry and Lake Victoria Fisheries Organization. Need improvement because it is already undertaken.		
			5.3.2. Promote the development of knowledge-sharing agreements between regional, non-governmental stakeholders, such as Global Adaptation Network (GAN), Africa Adaptation Knowledge Network (AAKnet) and the UNFCCC Nairobi Work Programme.		
6. Project/Programme Execution cost (9.5%)					399,806
7. Total Project/Programme Cost					4,608,295
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (8.5%)					391,705
Amount of Financing Requested					**5,000,000**

Conclusion:

Burundi is full agreed for project proposal:" **Climate Change Adaptation in Lake Victoria Basin"** UNEP and LVBC to proceed ahead, also available for implementation at country level as mentioned. For any amendment it will done according country priorities.

Implementation arrangements:

National Coordination: ***Ministry of Water, Environment, Lands and Urban Planning***

National Executing Entity: ***Burundi Environmental Protection Office***.

Closing remarks.

The Director in charge of Production Sector in Ministry of East African Community Affairs appreciated very well the work done. He thanks a lot UNEP for designing the project in favour of states members mainly for Burundi. He request UNEP to proceed a head and keep contacts with everyone and team who help to move to the final stage. He wishes to each participant a good stay at Bujumbura and hope to meet for launching the project.

ANNEXE

List of Participants

N°	Name & Surname	Institutions	Contacts Adress
1	NINGANZA Longin	Ministry of Agriculture and Livestock / Director	lininganza@gmail.com 79491824
2	NKURIKIYE Anicet	Ministry of Water, Environment, Lands and Urban Planning / Designated Authority	nkurianicet@yahoo.fr 79900709 / 77867 181
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7	NIKWIBITANGA Evariste	Ministry of Finance, Budget and Planning/ Director of Budget	nikweva@yahoo.fr 71941737 / 69 206180
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24	NAHIMANA Liberat	LVEMP II Coordinator	nahimanaliberatfebr@yahoo.fr 79456360
25	MUNEZERO Ange	General Direction of Water and sanitation	75 293705
26	HARERIMANA Jean Marie	Geographic Institute of Burundi	79034168

National Concertation Meeting
List of attendancy
Held at Bujumbura (MEEATU), on 12th, July 2016

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National Concertation Meeting
List of attendancy
Held at Bujumbura (MEEATU), on 12th, jully 2016

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26.	HARERIMANA Jean-Marie	IGEBU	75 03 41 68		

National Concertation Meeting
List of attendancy
Held at Bujumbura (MEEATU), on 12th, jully 2016

N°	Name and Surname	Institution	Tel (☎ and Mobile)	E-mail	Signature

EAST AFRICAN COMMUNITY
LAKE VICTORIA BASIN COMMISSION SECRETARIAT

LAKE VICTORIA BASIN CLIMATE CHANGE AND ADAPTATION PROJECT PROPOSAL

REPORT OF THE STAKEHOLDERS MEETING TO VALIDATE THE LVB CLIMATE CHANGE AND ADAPTATION PROGRAMME

26th July, 2016
Nairobi, Kenya

LVBC Secretariat,
P.O. Box 1510, 40100
Kisumu, Kenya

1.0 OPENING OF THE MEETING

A stakeholder meeting to validate the Lake Victoria Basin Climate Change and Adaptation Project Proposal was held on the 26th July, 2016 at UNEPs Gigiri Offices. The meeting was attended by the LVBC Deputy Executive Secretary (Projects and Programmes), UNEP's Programme Officer Ecosystem Based Adaptation Programme Officer, Tetra Tech Chief of Party and Senior Official from the Partner states of Burundi, Kenya, Tanzania, Rwanda and Uganda. LVBC Secretariat staff and the representative of the Consultant were also in attendance. The list of participants is attached hereto as **Annex I.**

1.1 Adoption of the Agenda

The Meeting adopted the agenda with minor amendments. The Agenda is hereto attached as **Annex II.**

1.2. Constitution of the Bureau

The Bureau was constituted in accordance with the East African Community (EAC) Rules of Procedure. Ms. Dora Neema, Ministry of Foreign Affairs and East African Cooperation United Republic of Tanzania chaired the meeting while Mr. Jackson Twinomujuni, Assistant Commissioner, Ministry of Water and Environment , Republic of Uganda was the rapporteur.

2.0 OPENING REMARKS

2.1 Remarks by the Host Country Republic of Kenya

Mr. Thomas Lerenten Lelekoitien, the Deputy Director, Climate Change Adaptation; Ministry of Environment and Natural Resources, Republic of Kenya; welcomed the delegates to the meeting. He thanked the UNEP and LVBC for coordinating the development of detailed project proposal; and particularly the regional meeting held on 7th and 8th June 2016; and National consultation meetings. He emphasized the objectives of the oncoming project is to ensure on ground activities to address community climate change challenges are priotised. He concluded by inviting delegates to enjoy Nairobi city.

2.2 Remarks by UNEP

Dr Musonda Mumba; Programme Officer, Ecosystem Based Adaptation (EBA) Flagship Programme Coordinator in the Climate Change Adaptation Unit (CCAU) within division of Environmental Policy Implementation in the United Nations Environment Programme, thanked all the EAC Partner States for their contribution and participation in the national consultation meetings. She presented the objective of the meeting; and also appreciated the leadership of Partner States; and requested all Partner States to submit their endorsement letters on time. She concluded by wishing participants good validation meeting.

2.3 Welcome Remarks by the Deputy Executive Secretary, Programmes and Projects LVBC

The Deputy Executive Secretary Programmes and Projects LVBC, Mr. Telly Eugene Muramira welcomed participants to the meeting. He reiterated the process taken to develop this project proposal and emphasized the need to validate the project proposal to allow UNEP to submit it on time.

The Deputy Executive Secretary informed the meeting that UNEP consultant has incorporated the national inputs; and meeting was therefore to discuss and validate final draft. The final draft project proposal will then be taken to Climate Change Adaptation Fund Secretariat for consideration. He concluded his remarks by thanking delegates for their turn up and wished them fruitful deliberations.

2.4 Remarks by the Chair

Mrs Dorah Neema the Community Development Officer, ministry of Foreign Affairs and East Africa Cooperation, United Republic of Tanzania welcomed delegates to the meeting. She noted that this is an important meeting, and thanked LVBC and UNEP for organizing the meeting. The chair noted that a number of consultations have taken place in all partner States, in which different stakeholders participated. She also noted that all remarks from previous speakers emphasised on the need to fast-track the development of this project proposal and to ensure it is submitted on time. She emphasised the need to involve local governments in the implementation of this oncoming project so as to ensure impact on the ground. She reiterated the role of EAC Ministries in partner States and the relevancy of this Ministry in the success of the project. Mrs Dorah, presented the commitments of the government of United Republic of Tanzania to support this project; and promised to deliver the endorsement letter. She took the opportunity to welcome all the participants to the meeting and officially declared the meeting open.

3.0 BACKGROUND TO THE REGIONAL STAKEHOLDERS MEETING

The stakeholders meeting was convened as a follow-up of the technical regional meeting held from 7th to 8th June 2016 in United Nations Environment Programme (UNEP) office to develop detailed project proposal. During the meeting it was agreed that there was a need for further consultation with the Partner States. As a results, UNEP and the Lake Victoria Basin Commission (LVBC) Secretariat conducted National consultation meetings from 8th to 15th July 2016 to get inputs from Partner States to inform the finalization of the detailed project proposal.

The objectives of the national consultative meetings were to discuss and get national inputs on the five main Project Components notably; (i) Regional Management of a transboundary water catchment; (ii) Climate information & decision-making; (iii) Climate change adaptation in vulnerable communities; (iv) Small Grants Programme; and (v) Knowledge Management and learning.

After national consultation meetings, UNEP in collaboration with LVBC Secretariat organised a regional validation meeting to allow Partner States to validate the final project proposal before it is submitted to the Adaptation Fund (AF) Secretariat on 1st August 2016.

3.1 Objective(s) of the Meeting

The objectives of the meeting are:

(i) Discuss the national consultation meetings comments on the LVB Climate Change and Adaptation Proposal;

(ii) Provide inputs to improve the final draft LVB Climate Change and Adaptation Proposal; and
(iii) Validate final draft of LVB Climate Change and Adaptation Proposal.

4.0 PRESENATIONS

4.1 Presentation of the Final Draft Proposal Log Frame

Mr. Nicholas Tye, the Senior Consultant, C4 Eco Solutions presented the detailed log frame for the LVB Climate Change Adaptation Project. He elaborated each of the five components in details, outcomes, outputs and key activities. He further mentioned the key issues raised during the national consultation meetings and how they have addressed and incorporated them in the final log frame and proposal. The five components include:

i) Component 1: Regional management of a transboundary water catchment;
ii) Component 2: Climate information dissemination;
iii) Component 3: Regional approach to climate change adaptation in vulnerable communities;
iv) Component 4: Community-based approaches to climate change adaptation; and
v) Component 5: Knowledge management and learning

Detailed Log frame is attached as ***Annex II***

After the presentation, the meeting noted and agreed that, the Consultant need to take into consideration the following:-

i) Review section 2.1- and provide for downscaling of the information generated at the regional level and how it will fed into the local communities under section 2.2;
ii) Review section 1.12- and establish the extent to which this activity is being implemented by PREPARED and provide for complimentary activities;'
iii) Communication strategy in component 5 is being developed by PREPARED project and CC working group in LVBC and therefore streamline it for climate change adaptation communication strategy;
iv) On 1.1.1- Climate change technical group is developing a stakeholder engagement strategy and this project should build on the outcomes of this strategy;
v) There is need to articulate better the transboundary nature of the interventions;
vi) There is a need to consider the implementation arrangements on the ground and how will be further elaborated in the inception workshop;
vii) The need to consider existing regional and transoundary Joint Technical Committees such as Mara river, Nyungwe - Kibira; etc
viii) investigate potential cost sharing and co-financing with the PREPARED project;
ix) Ensure that project selection criteria is tailored to select projects sites that are not currently covered under other projects;
x) In activity 1.1.2, to designate an streamlined technical working group out of the existing climate change working group within the EAC;

xi) In activity 1.1.1, remove reference to developing strategy and replace with strengthen the flow of information using the strategies in place;
xii) Activities 4.1.4-4.1.8, specify that implementation will be through small grants;
xiii) Synergize project specific communication strategy in component 5 with the broad LVBC knowledge management strategy that is currently being developed;
xiv) In activity 1.2.2, ensure training is provided to local governments as well;
xv) The project should develop guidelines during its inception phase for the selection criteria for the small grants recipients; and
xvi) Harmonize the intervention sites and the interventions between component 3 and 4;
xvii) Establish clear guidance for community projects on the grants;
xviii) There is a need for the project to be implemented in new other areas rather that those currently benefiting from other projects

4.2 Presentation of the Draft Implementation Arrangements

Mr. Nicholas Tye, the Senior Consultant, C4 Eco Solutions presented the detailed implementation arrangements for the project management at the regional and national level, including coordination arrangements within countries and among them. Describe partnership potential with national institutions, and when possible, national implementing entities (NIEs), in the management arrangements.

The detailed Implementation arrangement is attached as ***Annex III.***

After the presentation, the meeting agreed that:

i) Specify the role of the climate change technical working group that will be established under this project and consider the social scientist in community development;
ii) Rearrange the organogram to clarify the relationship between the various institutions;
iii) Change the name of the Project Steering Committee to Policy Steering committee;
iv) Clarify UNEP's involvement in the Policy Steering Committee and Climate Change Technical Working Group – It was agreed that UNEP would be invited to the Policy Steering Committee on a need basis; and
v) Clarify the role of the Ministry of EAC and NDA in the partner states- It was agreed that for the sake of mainstreaming the organogram, only the focal ministries would be mentioned, but that all the involved ministries would be part of the National Project Team

4.3 The Presentation of the Endorsement Letters

The Deputy Executive Secretary, Projects and Programmes, Telly Eugene Muramira explained the importance of the endorsement letters which must accompany the proposal during the submission. He mentioned that the submission of the endorsement letter and the proposal is 1st August, 2016 and that if we miss the deadline then the next submission will be next year 2017. His brief was followed by presentation of each Partner States on the progress made. Below is the up-dates;

i) Burundi: Endorsement letter has been submitted on the 26th July, 2016;
ii) Kenya : Endorsement letter has been submitted on the 26th July, 2016;

iii) Rwanda, Tanzania and Uganda are on the final touches on getting the letters. The partner States committed to send letters as follows: Rwanda – 28th July, 2016; Tanzania – 1st August, 2016; Uganda – 2nd August, 2016.

5.0 PROPOSED ROAD MAP TOWARDS THE SUBMISSION OF LVB CLIMATE CHANGE ADAPTATION PROGRAMME PROPOSAL TO ADAPTATION FUND.

i) **The Consultant in consultations with UNEP and LVBC Secretariat to incorporate stakeholders comments on the Log frame and Implementation Arrangements by 29th July, 2016;**
ii) **The draft LVB Climate Change and Adaptation Project proposal be shared by the Partner States by 1st August, 2016;**
iii) **The Republic of Rwanda to submit the endorsement letter by 28th July, 2016; United republic of Tanzania by 1st August, 2016; Republic of Uganda by 2nd August, 2016;**
iv) **UNEP to submit the LVB Climate Change and Adaptation final proposal to Adaptation Fund Board by 1st August, 2016 which is the deadline for submission;**
v) **The Adaptation Fund Board will meet on the 10th – 13th October, to consider the proposal;**
vi) **Partner States and LVBC Secretariat will be informed on the outcome by end of October, 2016;**
vii) **LVBC Secretariat to share the progress made on the preparation of the LVB Climate Change and Adaptation Project proposal with the 17th SECOM in October, 2016.**

6.0 CLOSURE OF THE MEETING

The Chairperson thanked the delegates for taking time to participate in the meeting, and the LVBC Secretariat and UNEP for organising the meeting and their support on the preparation of the proposal. She underscored the importance of the Partner States of Rwanda, Tanzania and Uganda to submit the endorsement letters on time and as agreed. She wished all the delegates safe travel back to their destinations.

SIGNED ON 26th JULY BY HEADS OF DELEGATIONS:

United Republic of Tanzania

.....

Mrs. Tumaini Mwamyala
Sn Community Development Officer
Ministry of Water and Irrigation

Republic of Burundi

.....

Mr. Hussein NDAGIJE,
Advisor in the Department of Productive Sectors and LVBC Desk Officer,
Ministry to the Office of the President Responsible for East African Community Affairs.

Republic of Kenya

.....

Mr. Thomas Lerenten Lelekoitien,
Deputy Director, Climate Change Adaptation;
Ministry of Environment and Natural Resources

Republic of Uganda

.....

Mr. Twinomujuni Jackson,
Commissioner
International and Transboundary Waters Affairs
Ministry of Water and Environment

Republic of Rwanda

.....

Mr. Fred Nzasabimana
Environmental Expert and LVBC Desk Officer
Ministry of EAC Community Affairs

MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES

OFFICE OF THE PRINCIPAL SECRETARY

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Website : www.environment.go.ke

N.H.I.F. BUILDING
RAGATI ROAD
P.O. BOX 30126
NAIROBI

Ref: DENR/EMC/6 **Date: 28th July, 2016**

The Adaptation Fund Board
C/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

RE: ENDORSEMENT FOR THE PROJECT PROPOSAL ON "ADAPTING TO CLIMATE CHANGE IN LAKE VICTORIA BASIN".

In my capacity as designated authority for the Adaptation Fund in the Republic of Kenya, I confirm that the above (Lake Victoria Basin) project proposal is in accordance with the government's (select national or regional) priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Republic of Kenya.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by the Lake Victoria Basic Commission (LVBC).

Charles T. Sunkuli
PRINCIPAL SECRETARY

REPUBLIC OF RWANDA

Kigali, on 01 AOUT 2016
Ref 1468/16.03

MINISTRY OF NATURAL RESOURCES
P.O. BOX 3502 KIGALI

The Adaptation Fund Board
C/O Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for the Adaptation Fund Project Proposal on "Adapting to climate change in Lake Victoria Basin".

In my capacity as designated authority for the Adaptation Fund in the Republic of Rwanda, I confirm that the above (Lake Victoria Basin) full project proposal is in accordance with the government's National and Regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Republic of Rwanda.

Accordingly, I am pleased to endorse the above project /program proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by the Lake Victoria Basin Commission (LVBC).

Fatina MUKARUBIBI
Permanent Secretary

UNITED REPUBLIC OF TANZANIA
VICE PRESIDENT'S OFFICE

Telegraphic address: **"MAKAMU"**,
Telephone:**+255 222113857/2116995**
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6th Albert Luthuli Street,
P.O.Box 5380,
11406 DAR-ES-SALAAM
TANZANIA

In reply please quote:
Our Ref:CBC.78/130/01/D/42

26th July 2016

The Adaptation Fund Board,
C/o Adaptation Fund Board Secretariat
Email:Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

RE: THE SECOND ENDORSEMENT LETTER FOR THE ADAPTATION FUND PROJECT PROPOSAL ON ADAPTING TO CLIMATE CHANGE IN LAKE VICTORIA BASIN

Reference is made to the above captioned subject.

The Vice President's Office (VPO) as the Designated National Authority and the GEF Operational Focal Point on behalf the Government of the United Republic of Tanzania is pleased to confirm that the full project proposal on adapting to climate change in Lake Victoria Basin project is in accordance with the government's National and Regional priorities in implementing adaptation activities to reduce adverse impacts and risks posed by climate change in the region and Tanzania as well.

Accordingly, I am happy to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by the Lake Victoria Basin Commission (LVBC).

We thank you for your continued cooperation.

Eng. Ngosi C. X. Mwihava
Ag. Permanent Secretary

All correspondences should be Addressed to ***Permanent Secretary,***

CC

Permanent Secretary
Ministry of Foreign Affairs and East African Cooperation
P.O.Box 9280
11467 DAR ES SALAAM

REPUBLIC OF BURUNDI

22th July 2016

MINISTRY OF WATER, ENVIRONMENT,

LANDS AND URBAN PLANNING

Ref. N°: BU AF/D.A/01/2016

Letter of Endorsement by Government

To: The Adaptation Fund Board
C/o Adaptation Fund Board Secretariat
Email:Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for the Adaptation Fund Project Proposal on "Adapting to climate change in Lake Victoria Basin".

In my capacity as designated authority for the Adaptation Fund in the Republic of Burundi, I confirm that the above Lake Victoria Basin full project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Republic of Burundi.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by the Lake Victoria Basin Commission (LVBC).

Sincerely,

Mr. Anicet Nkurikiye
Designated Authority for the Adaptation Fund
in the Republic of Burundi
Ministry of Water, Environment, Land and
Urban Planning.
P.O Box 34, Gitega
Burundi
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