

**PROJECT INFORMATION DOCUMENT (PID)
IDENTIFICATION/CONCEPT STAGE**

Report No.: PIDC85596

Project Name	Engaging Private Sector for Green Growth in the Lake Victoria Basin Project
Region	AFRICA
Country	Africa
Lending Instrument	IPF
Project ID	P161265
Borrower Name	East African Community
Implementing Agency	Lake Victoria Basin Commission
Environment Category	B - Partial Assessment
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Initiation Note Review Decision	The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Lake Victoria is the largest lake in Africa, and its Basin includes major areas of 5 countries (Burundi, Kenya, Rwanda, Tanzania and Uganda), all the poorest countries among the world and four of which Nordic Development Fund (NDF) target countries. The Basin is a major population and poverty center in the Africa Region, and a trans-boundary natural asset of global importance. The Basin is home to around a third of those below the poverty line in the East African Community (EAC), living on around a ninth of its land surface. The Lake supports the world's largest freshwater fishery, with a total annual landed catch value estimated at around US\$0.5 billion, supporting the livelihoods of over -30 million people with an estimated increase of 3%, providing roughly 0.5 million tons of fish to local markets and generating US\$0.25 billion in export revenues. The establishment of the Nile Perch fishery in the 1980s and 1990s provided a resource boom that drew in poor and disadvantaged people from the neighboring countries. Large rural poor populations are also dependent on the degraded lands in the upper basin, particularly in Burundi, Rwanda and the Kenya highlands. In addition, the waters of the Lake and its catchment provide 90 percent of Uganda's hydropower, most of the hydropower for Rwanda and Burundi, and the water supply to major urban centers including Kampala, Mwanza and Kisumu. Protected areas cover 25 percent of the Basin's land area and include some of the most renowned wildlife attractions in Africa -Serengeti and Volcanoes National Parks.

The Lake Victoria Basin has also become a global example of environmental degradation. Historically, the introduction of the Nile Perch was associated with a mass extinction of native fish species, but Perch stocks have now themselves declined to probably less than half of their peak levels due to increased and uncontrolled fishing and other environmental stresses. Population pressure and environmental degradation within the Basin increasingly poses broader threats to

livelihoods and welfare. Loss of forest cover and erosion of soils has chronic impacts on agricultural productivity as well as acute impacts where gullies destroy land, property and even lives. The flow of sediments and other pollutants into the Basin's rivers and ultimately the Lake reduces the supply of potable water, and causes algal blooms that are unpleasant for lakeshore communities and limit the tourism potential of the region. One of the most striking indicators of poor ecological health is the rapid colonization of the Lake by water hyacinth. Infestations of this invasive floating plant periodically block access to kilometers of lakeshore, preventing use of the Lake for transport and fishing, as well as posing serious health and safety risks to local inhabitants.

Existing vulnerabilities, including pollution, loss of soils, watershed function and stress on aquatic ecosystems are expected to be exacerbated (both cause and effect) by climate change, as temperatures rise and rainfall becomes more erratic. Extreme climatic events, including floods, droughts and landslides, and stress on water resources are expected to increase. Lake level and therefore large amounts of coastal infrastructure, are very sensitive to climatic changes. The Lake rose by about 2m within a couple of years in the 60s in response to a change in weather patterns, fell over the following decades partly due to drought occurrences, and has been rising again in recent years. By 2100, temperatures are projected to increase by 2-4 degrees Celsius in the basin area, with an increase in duration of heat waves and intensified droughts. The local population is expected to continue to grow with the ongoing strengthening of regional transport systems, but degradation of the resource base exacerbated by climate change puts the long-term economic prospects of the region at risk.

Sectoral and Institutional Context

The Lake Victoria Environment Management Program (LVEMP) has been working to reduce the environmental stresses on the Lake through targeted investments mainly in watershed management, and sanitation and wastewater treatment. However, it has been realized that, in addition to action to reduce point-source pollution on the part of the public sector, there is a need to galvanize the private sector to do the same. A small, but markedly successful component of the project, has been the Resource Efficient and Cleaner Production (RECP) program. RECP is defined as the continuous application of an integrated preventive environmental strategy to processes, products and services along three sustainability dimensions (i) production efficiency through improved productive use of natural resources; (ii) environmental conservation through minimization of the impact on nature by the enterprise; (iii) human development through reduction of risks from enterprises and supporting their development. The aim for RECP strategies is the increase in productive use of natural resources, minimize generation of waste and emissions, foster safe and responsible production, thus leading to economic, reputational, and regulatory as well as environmental and climate change adaptation and mitigation-related benefits.

In LVEMP, the RECP program engages private industry within the Lake Basin to assess their production systems and adopt greener practices and technologies. An expenditure of a couple of million USD solely on technical assistance (awareness and training of industries, and in-plant RECP assessments), has directly leveraged over \$80m in private sector investments in improved environmental practices. A survey of 30 of the most active firms in the program (from a total of 88 to date), revealed that factories were typically investing around \$1m in RECP technologies, with pay-back periods of around 2 years (equivalent to an IRR of around 35%). Most of these savings come from reduced usage of energy and water. Initial results are showing that actively participating industries are also able to reduce their pollution generation by around 90%. Despite the success of

the RECP program, the scale of the environmental challenges within the basin far exceed the capacity of the funds allocated by LVEMP. According to information derived from the respective country revenue authority, there were a total of 1,100 industries around the basin in 2010. LVEMP has reached about 20% of those industries through capacity building and around half of them have adopted cleaner production technologies, which equals to only 10% of the total industries. Further efforts are required to mobilize private sector investments which the existing RECP program has already demonstrated to leverage in significant quantities.

The RECP program is managed through National Cleaner Production Centers outside of government (coordinated by the Kenya Center that serves as a regional facilitator), and has been funded at the regional level through the Lake Victoria Basin Commission that has been created by the East Africa Regional Economic Community. The current phase of LVEMP has been extended to allow completion of investments at the national levels, and to keep the program active until 2017, when additional Regional IDA resources may become available for a new phase of investment. The possible next phase of the program is expected to be more ambitious in scope, with a more holistic approach and more explicit emphasis on green and resilient growth within the Basin.

The Lake Victoria has a major ecological significance because of a wide diversity of flora and fauna it supports. The population of the Lake Victoria Basin is about 35 million people, and it represents approximately 30 percent of the total inhabitants of the East African Community (EAC) Partner States. The livelihoods of the majority of those populations around the Basin are dependent on the Lake as this is the source of business. A large proportion of the industries within the Basin are agri-processing and fish processing factories. Ensuring sustainable management of these natural resources and increasing the productivity are both essential for improvement of their livelihoods and the growth not supported by improved natural resources management would not be sustainable. In that regard, the focus on environmental management should shift from local optimization of environmental factors to consideration of the entire supply chain from the production, consumption, to the final disposal of products. Greening supply chains which relies on a degrading natural resource base would enhance the production and sustainability of inputs, reducing transport costs, as well as providing companies with opportunities to benefit financially from lower-carbon production and eco-certification. Some pilots are already starting within the Basin, such as a partnership between a dairy company and Vi Agroforestry to promote improved land management and increased milk production in Kenya, but there is a much larger potential to engage the private sector in sustainable natural resources management.

There is also a strong interest from industry stakeholders to focus more on SMEs as they are the backbone of the economy in most of developing countries but at the same time are often among the highest polluters due to use of obsolete technology and lack of adequate pollution control systems, lack of institutional capacity to provide technical support services, or financial constraint which may demand public sector involvement to facilitate the clean and green development of these industries. RECP for SMEs generate a range of private and societal benefits such as reduced manufacturing and operating costs, growing employment opportunities, increased health and safety performance and reduced pollution and climate change mitigation benefits. It reduces energy and water use (tea and sugar industries within the basin present opportunities for major energy savings), reduces pollution and sedimentation which has key climate risk multiplier effects through urban flooding and stress on wetland ecosystems as well as human health. Previous evidence has demonstrated RECP to be a very effective entry point for engaging businesses in sustainability issues more broadly. For instance, one tannery within the program has since undertaken to restore a

local wetland area and tea factories are undertaking water catchment conservation activities as well as infrastructural and social amenity programs (e.g. schools, hospitals). This has the consequence of reducing the vulnerability of the rural population in which most of these industries are located. Looking at the entire supply chain, small industries can also benefit from promoting sustainable resources management through increased competitiveness and value addition to their products which allows them to leverage its brand to the buyers who are often larger and more powerful companies.

Relationship to CAS/CPS/CPF

LVEMP, with which the project has close link, supports the Bank's twin goals of reducing extreme poverty and enhancing shared prosperity through enabling business environment, promoting inclusive economic growth, and facilitating regional coordination in the Lake Victoria Basin. LVEMP is directly aligned with the Regional Integration Assistance Strategy, Coordinated Investments to Provide Regional Public Goods, through improved management of Lake Victoria as a shared water resource, raising agricultural productivity, and regional research and technical capacity development. LVEMP also contributes to the Strategy by supporting respectively the rehabilitation of the Lake as a transport hub, and the role of the East African Community in leading a program of practical coordination in the management of a regional asset, and demonstrates a commitment to the cross-cutting theme of Coordinated Regional and National Planning through, inter alia, the participation of the LVBC.

The project is also aligned with and supports the aims of the 2003 Protocol for Sustainable Development of Lake Victoria Basin, which governs the EAC member states' cooperation for management of water resources in the Basin, and established LVBC. The proposed project contributes to national priorities and development strategies. Kenya's Vision 2030 recognizes that growth depends on sustainable environmental and natural resources management. Similarly Uganda emphasizes in its Second National Development Plan to strengthen the country's competitiveness for sustainable wealth creation, employment and inclusive private sector led growth. In Tanzania, the new Five Year Development Plan (2016/17-2021/22) focuses on accelerating structural transformation to move Tanzania into a semi-industrialized economy. Rwanda prepared a Green Growth Strategy aiming to be a country where agriculture and industry have a minimal negative impact on the environment, operating in a sustainable way. Vision Burundi 2025 identifies Economic Growth and the Fight Against Poverty as one of the pillars emphasizing the growth based on sustainable resource management in the sector such as agriculture, mining, and tourism.

The proposed project is aligned with the new Regional Strategic Framework to support structural transformation, economic diversification and inclusion by increasing agricultural productivity, strengthening private sector partnership, and mobilizing domestic resources. It touches on all of the priority areas for support in low income countries such as i) Agricultural performance, ii) Business enabling environment, iii) Gender, iv) Job creation, and v) Economic diversification. The new Regional Strategic Framework emphasizes doing more on SME & financial inclusion and regional policy coordination which are the core activities of the proposed project. The project also contributes to advance the goals of Sustainable Development Goals, especially the goal #9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation and the goal #12 Ensure sustainable consumption and production patterns. The proposed project is aligned with each Country Partnership Framework (CPF) for participating countries. Kenya CPF

describes its priorities to i) Improve the economy (s competitiveness and sustainability to support rapid growth over a decade or more, and to ii) Promote protection and potential to ensure all groups share in advancing prosperity and helping the vulnerable to develop their potential. The strategic focus areas of Uganda CPF is on agriculture sector where most of the poor and vulnerable find their livelihood. In Tanzania, the Systematic Country Diagnosis (SCD) is underway and it emphasizes the importance of improved resource management in terms of land and water management to increase agricultural productivity and ensure inclusive growth.

II. Project Development Objective(s)

Proposed Development Objective(s)

To enhance private participation in resource-efficient and cleaner production and sustainable land management within the Lake Victoria Basin

Key Results

The project aims to expand the success of the Resource Efficient and Cleaner Production (RECP) pilot program, leveraging successful partnerships to bring in new elements, such as sustainable supply chains and industrial symbiosis which are expected to play a major role in the scale-up of sustainable land management within the basin (as many of the local industries are agro-processors) and the joint adaptation and mitigation impacts that accompany it. This would provide a platform for expanding private sector engagement in the possible next phase of LVEMP, or otherwise inform LVBC and RECP programs that may be supported from other sources in future.

Proposed PDO indicators are:

- 1) Number of new companies engaged in Basin management activities (including RECP and green supply chains)
- 2) Number of private sector investment which contributes to increased resource productivity of water, materials and energy
- 3) Direct beneficiaries

III. Preliminary Description

Concept Description

The project is an RETF small grant of \$3.5m, to be financed from a total of Euro 4m from the NDF, the remainder of which would be used for related Bank-executed activities (both supervision and some additional technical assistance). The project consists of the following three components.

Component 1: Scaling-up the RECP Activities: This component aims to expand the scope of engagement, for a broader and more sustainable program of resource-efficient and cleaner production (RECP) activities with the private sector. The existing RECP program is based on training and detailed, joint in-plant assessments, mainly with larger firms. The scale-up of this program is necessary not only to build on the lessons learned so far and carry momentum through to the possible next phase of LVEMP, but also because it has been shown to generate genuine win-wins for the environment and bottom line, which provide an entry point to engage the private sector on environment and climate activities more broadly. Through the joint in-plant assessment, it also provides the perfect experiential platform for identifying the opportunities. The aim is to extend and expand the current program beyond large enterprises, to include small and medium enterprises (SMEs) and their umbrella associations. The expected outcomes of this component are increased adoption of RECP by targeted industries including SMEs, contributing to the compliance

enforcement on regional effluent standards and the reduction of industrial pollution that are discharged into Lake Victoria.

Subcomponent 1.1: Scaling up existing RECP activities: This subcomponent provides for a continuation of the cleaner production program under the LVEMP, bridging the gap to an expanded next phase. It will also bring in the new aspect of industrial symbiosis, exploring possible waste exchange and recycling relationships between businesses. The main activities include: (a) expanding training of targeted industries on cleaner production technologies; (b) undertaking cleaner production in-plant assessments; (c) conducting award events to promote recognition and peer-learning; (d) continued monitoring and mapping of industries and effluents to assess the environmental impacts of the program and the level of compliance with the regional effluent standards developed under LVEMP II; and e) assessing options for and promoting symbiotic waste exchange between industries.

Subcomponent 1.2: Expanding partnership: Expanding the reach of the program to SMEs is critical to achieving wider impact. This will involve conducting surveys and rapid assessments of SMEs to determine the number, locations and types of industries, their environmental impacts, and common opportunities, challenges and entry-points for introducing RECP technologies. Potentially key industries within which SMEs are important include a variety of agro-processing industries, fish-processing, mining (which is largely carried out at small scales within the Basin and motor vehicle servicing centers. Experience in reaching out SMEs to date suggests that successful engagement will require: a) making guidance on simple, industry-specific green technologies more readily available, rather than only conducting in-depth site-specific assessments that limit the number of industries that can be assisted; and b) potentially addressing the availability of finance for green investments by engaging the financial sector, particularly providing training on the financial returns from RECP technologies and how to assess loan applications. Accordingly this subcomponent will help address these aspects through i) Strengthening knowledge products such as industry-specific manuals and guides for simple green technologies; ii) Developing institutional knowledge networks establishing an accessible and interactive on-line resource center (including use of social media); iii) Conducting workshops for raising awareness and study tours for knowledge exchange; iv) Introducing partnerships between local clean technology SMEs and investors for technology development ; iv) Building capacity through providing training opportunities such as financial analysis; and (v) Engaging and building capacity of industry associations to support members in RECP.

Component 2: Strengthening the Facilitating Environment for RECP: Participation in the RECP program is and will remain voluntary, but this component aims to strengthen the incentives for companies to adopt RECP technologies. The expected outcomes of this component are promotion of private sector engagement in resource efficient and cleaner production through raising awareness and strengthening monitoring capacity and increased transparency.

Subcomponent 2.1: Enabling environment for cleaner production. While RECP remains as a voluntary environmental governance tool, incentives can be created to encourage companies to adopt RECP technologies. These can be done through i) Strengthening enforcement of environmental regulations (command-and-control); and ii) Empowering the public with information to check on industries to reduce pollution (environmental performance disclosure). Strengthening enforcement (i) will be done through institutional assessment and capacity building for enforcement of environmental regulations. It will take stock of the existing policies and regulatory environments and emissions standards to identify gaps and recommendations for incentives to strengthen the

overall enabling environment for cleaner production. There are a number of legal and regulatory policies that can be investigated, such as tax incentives, taxation on pollution or natural resources use, incentives to attract skilled labor. Environmental performance disclosure (ii) will be conducted through strengthening data collection and monitoring and making information related to environmental performance of the industries available to the public.

Subcomponent 2.3: Designing financial scheme for sustainability of RECP programs. The subcomponent aims at developing the sustainable financial mode/market for making RECP advisory services available to make RECP program self-sustained. This will include potential market survey for willingness to pay for advisory services as well as type of advisory services where demands of industries exist. It will also identify sources of expertise required for providing such services.

Component 3: Piloting Green Growth instruments: This component aims at engaging private sector support for more sustainable agricultural supply chains, particularly targeting important local agricultural commodities (e.g. sugar, tea, coffee, honey) which have intrinsic land management benefits or which offer options for improved production systems that also benefit environmental functions. The aim is therefore to engage the private sector with the Basin (much of which is involved in some form of natural resource-based or agri-processing industry) on sustainability issues beyond the factories themselves, and to promote private sector investment in sustainable land and watershed management. The expected outcomes of this component is successful pilot of green supply chain through collaboration with the private sector.

Subcomponent 3.1 Analysis of opportunities for greening agricultural value chains. Agriculture is a major livelihood source in the Basin, and at the same time is identified as a key driver of land degradation. It is therefore strategic to stimulate investments in agriculture that can increase the economic productivity of its value chains whilst reducing its environmental impact. Such investments can be made through the process of greening of agricultural value chains which aims for environmentally sustainable agriculture and economically sustainable agriculture. Several approaches exist for greening agricultural value chains such as creating markets and improving market connections for example creating access to market premiums for eco-certification and eco-labeling and capacity development; introduction of out-grower schemes; introduction of new technologies for example associated with climate smart agriculture; and developing new infrastructure such as feeder roads.

This subcomponent will therefore include analysis of approaches for greening value chains for selected commodities in the Lake Basin. Activities will include analysis of (i) the options for products or production systems, which provide direct environmental benefits or have potential as alternative livelihoods to reduce fishing effort, and/or can be produced in more sustainable / environmentally-friendly systems; (ii) the incentives and barriers for private companies to support those products / production systems in terms of increased production, quality, market access or premium pricing; and (iii) practical means by which those companies can work with producers / suppliers to collectively discuss opportunities and potential innovative solutions to promote those changes. Finally, an action plan for private sector outreach and engagement will be developed.

Subcomponent 3.2 Green supply chain pilots. Based on the analysis of opportunities above and the interests of private sector partners, this component will provide funds to support the initiation of some green supply chain activities at a demonstration scale. This will be on a cost-sharing basis (e.g. the project could fund analysis and verification of eco-certification requirements in support of a

company's sustainability investments, or could support the adoption of improved agronomic techniques amongst farmers to complement private sector investment in improved collection / storage / processing infrastructure). These pilot initiatives would provide a platform for larger programs during the possible next phase of LVEMP investment, and would help to assess the best mechanisms for their delivery (e.g. focusing on training and facilitation, establishing matching-grant funds, working with other partners in this sphere, such as the Livelihoods Fund for Family Farming, which already has a pilot project on improved dairy production in the Basin).

Bank-executed activities:

For speed for implementation, harmonization with preparation and design activities for the possible next phase of LVEMP funding, and to leverage other Bank-executing funding, some analytical work under the Euro 4m NDF grant is proposed as Bank-executed activities. These include:

- i. Mapping of spatial data on point-source pollution, including locations, types & emissions of industries, and sources of waste water and solid waste & treatment systems.
- ii. Institutional analysis of wastewater and solid waste management systems. This will assess potential for greater private sector involvement in the financing and management of waste management systems, building in part on regional activities under the Bank's Water & Sanitation Program.
- iii. Value chain analyses to identify opportunities to engage private companies in greening of supply chains.

IV. Safeguard Policies that Might Apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04	x		
Forests OP/BP 4.36		x	
Pest Management OP 4.09	x		
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12		x	
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50			x
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	3.53	Total Bank Financing:	0
Financing Gap:	0		
Financing Source			Amount
Africa Climate Change Program			3.53
Borrower			0

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