



## PROJECT: MULTINATIONAL LAKE VICTORIA MARITIME COMMUNICATIONS AND TRANSPORT

COUNTRIES: KENYA, TANZANIA, UGANDA

### ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN SUMMARY

*Date: December 2014*

|              |                    |  |
|--------------|--------------------|--|
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## EXECUTIVE SUMMARY

**Project Title:** Lake Victoria Maritime Communications and Transport (LVMCT) Project

**SAP Code:** PZI GB0-019

**Country:** Kenya, Tanzania and Uganda

**Department:** OITC

**Division:** OITC.3

**Date of Categorization:** 15 November 2014

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### a) Brief description of the project and key environmental and social components

The project is designed around the 4<sup>th</sup> EAC Development Strategy (2011-2016) in addressing maritime transportation and navigation safety intervention areas so as to contribute to the provision of safe, efficient, cheap and environmentally friendly transport links, and fishing activities that are essential to achieving the goals of poverty reduction and sustainable development. The project has three main components: Namely;

**Component 1: Establishment of a Maritime Communications System for Safety on Lake Victoria Maritime Communication Network (MCN):** This component aims at extending the range of the current Global System for Mobile (GSM) communications system to its technical maximum, using the Extended Range features. It also includes a full implementation of the networks' positioning systems, providing accurate location of callers in distress as well as the implementation of a many-to-many communication technology to be used during rescue missions. This will involve repositioning and redirecting of the telecommunications receivers on existing Base Transmitter Stations (BTS) already installed by the telecommunications service providers in areas around the Lake. In other cases, additional transmitter equipment will be co-located on existing BTS.

**Establishment of Regional Maritime Rescue Communication Centre (MRCC)** in Mwanza, Tanzania; and two other regional sub-centers in Kisumu (Kenya) and Port Bell (Uganda) capable of receiving and responding to distress calls, locating the victims, mobilizing, controlling and coordinating rescue missions by rescue boats. MRCC is a twenty four hour command centre of all rescue missions. The MRCC is operated by certified rescue coordinators. The establishment of the MRCC will involve civil construction works in terms of site clearance and levelling, excavations, foundational works, superstructure construction and general finishing works and equipment. The size of the area required for the MRCC will be approximately 60x60m and will be staffed by a lean work force. The site is in an existing town with readily available power and water connections. It will have toilet facilities and connection to power supply from the electricity poles within the vicinity. The location where the regional MRCC is to be built has been made available in Mwanza by the Government of the Republic of Tanzania.

**Establishment of Sixteen Emergency Search and Rescue (SAR)** stations distributed around the lake equipped with fast rescue boats and trained crews. Three additional boats to be stationed at the main SAR (one per country) will have larger capacity and first aid facilities. The SARs will be co-located within the Lake Victoria Fisheries Organisation's (LVFO) fishing landing sites. The sixteen landing sites are already developed and functional with access roads, drainage, shelters, and electricity supply and sanitation facilities. They were constructed under project on improving fishing landing sites with the support of European Union.

Weather forecast and Value added services will involve installation of weather data collection system installed and information dissemination channels (SMS alerts and community radio).

### **Component 2: Maritime Transport for Lake Victoria Study**

**Development of East African Maritime Transport Strategy:** That will guide the development of the maritime transport sector in the region. The strategy will elaborate on the approaches for inland and sea ports development, maritime safety and capacity development.

**Preparation of Lake Victoria Transport Development Programme:** This component will comprise: assessment of current status; demand forecast; identification of projects required for achievement of transport network; detailed feasibility study for the short-term projects to be financed by the Bank; and needs assessment of capacity building. The total cost for two above studies is USD6.765 million of which NEPAD-IPPF is to cover USD 5.565 million. The balance is to be funded by the Bank group under the proposed LVMCTP.

### **Component 3: Project Management and Capacity Building.**

Establishment and support for the operation of the **Project Implementation Unit (PIU)**. The PIU to be headed by the Project Coordinator is responsible for effective execution and day-to-day management and implementation of the project (except for the transport study which will be undertaken under the direct supervision of the Deputy Executive Secretary Projects), including financial management, procurement, progress reporting and monitoring, and technical oversight of the project implementation activities. PIU will be supervised by the Deputy Executive Secretary responsible for Projects and Programs, who reports directly to the Executive Secretary of LVBC.

**Strengthening of implementation capacity of the Executing Agency:** Including technical support to prepare technical specifications of various components of the project and develop tender documents for the project.

**Awareness and Monitoring and Evaluation:** Development of communication and knowledge management strategy; undertake awareness activities; undertake monitoring and evaluation activities.

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### **Environmental and social components**

The environmental components of the project will involve construction of the MRCC in Mwanza which will entail construction of a housing facility for office and equipment through general constructional works in terms of site clearance, excavation for foundational works, super structure works, closing and fittings. Other activities will include MRCC office remodeling and furnishing; installation of emergency communication equipment; develop and establish maritime safety monitoring information system, recruitment and training of MRCC staff; and support MRCC operations and maintenance. The site is by the main Mwanza-airport road as such, a short access road will connect from the site to the main road. Power supply is within the site hence, no works for electricity extension will be required. Tanzania Ports Authority (TPA) has a 99 year lease for the two vacant plots it has made available for the construction of MRCC as such there will be no resettlement or compensation required.

For the Search and Rescue stations, these will be located within the existing 16 landing sites whose land is owned, developed and operated by the Partner States ministries responsible for fisheries in conjunction with the urban government authorities and the Beach Management Units (BMUs) structures. Lake Victoria Fisheries Organization (LVFO) spearheaded the developments of landing sites facilities through financing from the European Union (EU). Works on the SARs will involve construction of a 5x12m rescue boat shed on each of the sites and stands for boat rolling from the water to the sheds.

## **Objectives of the ESMP**

The objective of the ESMP is to ensure that all steps are taken to address the potential impacts of the project. The ESMP:

- a. Outlines project background and the activities that will be undertaken during project implementation as well as its anticipated negative environmental and social impacts;
  - b. Reviews Kenya, Uganda and Tanzania's policies, legal and administrative frameworks and level of congruence with African Development Bank policies and guidelines;
  - c. Describes public consultations and disclosure requirements;
  - d. Describes the measures proposed to mitigate negative, and to maximize positive, environmental and social impacts;
  - e. Defines the institutional structure to govern the implementation of the ESMP;
  - f. Defines the specific actions requires, roles and responsibilities for the actions, and associated costs; and
  - g. Describes capacity building requirements for the implementation of the ESMP.
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## **b) Major environmental and social impacts**

### **Positive environmental and social impacts**

These will include:

- a. The project will contribute to the provision of safe, efficient, cheap and environmentally friendly transport links;
- b. Safe waters will encourage more fishing activities that are essential to achieving the goals of poverty reduction, food security and sustainable development in the Lake Victoria Basin;
- c. Putting in place safe and secure maritime and transport infrastructure will be an incentive for attracting investments in lake transport, tourism and water sports ventures which is consistent with EAC Development Strategy as well as with the Banks Regional Indicative Strategy Paper (RISP) for East Africa on Transport on the Lake Victoria which has suffered from among others, many disastrous maritime accidents;
- d. The socio-economic welfare of the communities will be improved through the extended telecommunication coverage, as business will be carried out more efficiently with the available value added services;
- e. The key beneficiaries of the proposed SARs are mainly the small fishing boat operators (estimated to be 70,000) operating on the lake, families of fishermen, operators of other commercial and non-commercial vessels; and boat passengers who will all be equipped with search and rescue information systems;
- f. The rescue of drowning individuals especially men who dominate the fishing sector ensures wellbeing of the households as men who are culturally expected to fend for their families will avoid death from drowning;
- g. Furthermore, the enhancement of the Search and Rescue services will assist with the recovery of bodies that drown thereby relieving social stress and anxiety that families go through before bodies are recovered;
- h. It is also envisaged that, the project will contribute to improved water transport sub-sector in the region. It is noted that, apart from fishing, a significant number of larger vessels operate commercially on the Lake for transportation of passengers and cargo (the total trade transacted across the lake was US\$ 830 million in 2007 (exports - \$650, imports-\$180 million). Although lake transport is economical and environmentally friendly, its growth has been hampered because of its unsafe and inherent risks; and
- i. The enhanced communication will supplement partner states security interventions on the waters of Lake Victoria especially with respect to incidences of pirate/bandit attacks as well as loss of lives from water based animals such as crocodiles and hippopotamus amongst others.

## Negative Environmental and Social Impacts

The anticipated negative impacts of the planned project will include following:

### Negative Impacts

- a. Clearance of MRCC site will bring about loss of vegetation though this will be of small-scale in nature and can be mitigated through planting ornamental plants and grass on some areas on the piece of land for the Centre;
- b. Impacts relating to installation of additional new Base Transmitter Stations (BTSs) to augment the network coverage on the Lake will likely generate fears of radiations and their associated ill health. Such fears will not arise because; the process of installing BTS will be subjected to an ESIA as per regulations and its approval by Environment Management Agencies in the Partner States. In addition, the equipment for BTS must comply with telecommunications regulations and standards in the Partners States;
- c. Soil erosion will be triggered through site clearance and construction works for MRCC as well as establishment works for SARs. This will however be addressed through application of standard construction practices, site compaction and re-grassing of open areas designated as green sections;
- d. Works at the SARs constructions works will likely temporarily disrupt operations at the landing sites though this is a short term negative impact;
- e. During works, there can be disruption to the public utility lines i.e. water, electricity and telephone lines laid besides the roads especially along Mwanza-Airport road and this can be mitigated by observing urban planning guidelines as well as road reserve provisions that prohibit any construction works within 60m from the center line of the road;
- f. Noise from construction works on the SARs will be short term and localized in areas of the sites and work will be done during day hours to avoid disrupting sleep hours of the neighboring communities;
- g. There will be concerns relating occupational health and safety (OSH) of workers on site and it is proposed that, site workers either in MRCC or SARs be provided with basic Personal Protective Equipment (PPEs);
- h. Fears of accidents during works can be addressed through hording or sealing of the work sites to control access and intrusion from the public;
- i. The LVMCT infrastructures will be established near the lake edges and this can be a potential source human waste pollution and this can be mitigated by ensuring there are public utilities in terms of toilets and latrines;
- j. There can be issues of dust during earthworks in MRCC construction. This can be addressed through routine sprinkling of open surfaces with water to suppress dust during construction works;
- k. Issues relating to handling, transportation and disposal of recovered human bodies can present a health risk to the workers. This is to be handled through use of specialized body bags where recovered bodies will be placed and transported to the nearby health facilities for storage from where relatives can pick them for burial; and

Minimal hazardous waste especially the e-waste from the operations of the Centre will be the responsibility of service providers who will be procured to undertake routine maintenance and repairs of equipment.

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### c) Enhancement and mitigation program

The Partner States will issue approvals for the ESMP with conditions which have to be operationalized during project implementation by the contractors. The contractors will then be required in their monthly progress reports to include environmental and social issues in their reporting. Alongside this, during the monthly site meetings, environmental and social issues will be part of the agenda items to be discussed.

The land lease agreement for the Maritime Rescue Coordination Center from Mwanza City Council has the following conditions; the developer is obliged to do everything necessary to preserve and protect the

soil and prevent soil erosion on the land and all things which may be required by the authorities responsible for environment protection during development of the site. In addition, the City Council requires the site and building plans to be submitted for the review and approval before commencement of works. Above all there is a requirement that, the building materials must be of approved type and must be kept on the site in a manner that does not compromise the environment protection.

The Environment Management Agencies in the Partner States oblige the developers of projects to undertake an Environment Audit with 12 to 24 month after completion of the project. The Environment Audits will be able to bring to light some of the emerging environmental issues during its implementation and proposed compliance interventions for such concerns. This will add to enhancement of mitigation measures in the project.

It is also recommended that, the contractors undertake proper decommissioning of the sites at the end of the project by demolishing and clearing up any support temporary structures that could have been constructed by the contractor. However, where management of landing sites expresses interest to retain some support structures then used by the contractor, that should be done after approval from Environment Management agency or their representative in the locality.

In order to improve security and visibility around the MRCC site and SARs, the project will put in place security lights which will even serve the wider surroundings. Overall, the potential negative environmental and social impacts will be small in magnitude, localized and of short term nature which will be addressed through application of relevant construction best standards and practices as well provisions in the ESMP.

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#### **d) Monitoring program and complementary initiatives**

##### **Monitoring Program**

The overall objective of environmental and social monitoring is to ensure that mitigation measures are implemented and are effective. Environmental and social monitoring will also enable response to new and developing issues of concern during project implementation and therefore, it will ensure that, project activities comply and adhere to environmental provisions and standard specifications of both the Bank and the environment requirements governing usage of shared ecosystems in the Region as enshrined in the Protocol for Sustainable Development of Lake Victoria Basin 2003 as well as environmental management tools in the Partner States.

The responsibility for the environmental monitoring will largely lie with the three Environment Management Agencies in the Partner States (NEMA Kenya, NEMA Uganda and NEMC Tanzania) with LVBC playing coordination role.

Some of the key monitoring indicators of focus will include amongst others:

- a. Usage of life jackets;
- b. Number of sensitization and awareness meetings held for the fishermen such as First Aid measures;
- c. Involvement of women in the project activities which could include number of women employed in the project;
- d. Safety aspects on the project i.e. provision of PPEs for the workers; and
- e. HIV/AIDS sensitisation meetings held.

##### **Complementary Initiatives**

Some of the proposed Complementary Initiatives include:

##### ***Gender Mainstreaming and Economic Empowerment***

This intervention shall involve construction of fish by-products handling sheds and drying racks and smoking kilns. At the landing sites for SARs, women are engaged in mainly processing by-products of the Nile Perch from the fish factories where fish skins and smoked and salted Nile Perch considered unsuitable for export markets are sold to markets on an informal basis in to the Democratic Republic of

Congo (DRC). The backs and heads referred locally as *Mgongo wazi* are prepared and sold mainly in peri-urban markets in largely slum settlements markets in Nairobi and Kampala. However, the salting and sun drying is done in unhygienic environment i.e. on the ground and dilapidated tables. Moreover, the working environment in the open air means experiencing frequent interruptions from rain and wind. It is proposed that the project should build some sheds with concrete benches/slabs, pave the sites and put up some protective walls and storage space. This will shield the women from the sun and rain while they do the cleaning and salting of the fish by-products. The result will be increased output and quality of the products which would fetch better prices and increased sales.

### ***Health and Hygiene considerations***

The project will include interventions in dealing with communicable diseases through sensitization and awareness campaigns covering diseases such as HIV/AIDS, malaria and bilharzia, among others. The sensitization and educational campaigns shall include general hygienic behaviors surrounding the fish landings and handling of waste material. In some of the landing sites, the communities dispose waste directly into the lake. The worst case noted by the Mission is in Kirumba Fish Market Mwanza where heaps of solid wastes are dumped directly into the water and within close distance to where people swim and draw water. In addition to the sensitization and awareness programs, the project will support construction of a waste dumping facility at Mwanza and intensify health campaigns at the landing sites at the SARs including provision of latrines for use by the public. This will be done in collaboration with the BMUs, fisheries departments and LVFO among others.

### ***Employment Creation and Inclusivity***

Among the AfDB's strategic pillars is wealth creation by offering direct and indirect jobs to local communities the project will include in its design sensitization programs for men and women at the work place in order to create an atmosphere of self-respect among workers and between workers and employers. In addition, the contractor putting up the sheds shall be sensitized to offer at least 30% of semi-skilled and unskilled jobs to women and the youth in the project areas; and sourcing some of the construction materials and project goods from local artisans and suppliers. The contractor shall be obliged to train local youth (both men and women) to operate some of the construction machines and equipment. The design of the rescue boats (especially the larger ones) and construction of landing platforms shall provide rumps for use by people with disabilities and elderly, among the vulnerable.

### ***Self-Protection and Survival***

Incidentally usage of personal protective equipment such as life jackets is not fully utilized. A few of the fishermen wear life jackets out of habit, beliefs and unaffordability. Working with the NGO (Safe Waters) in Uganda, the project will support the distribution and usage campaigns dispelling unfounded beliefs and making the life jackets affordable. The NGO (Safe Waters) is already employing women to make the safety jackets from locally available materials such as empty water bottles in so doing help to manage the problem of solid waste in a form of empty plastic bottles.

### ***Safety Awareness and Educational Campaigns***

Information shared with the consultant indicates a significant number of accidents happen in transportation boats which are often overloaded and have no means for saving people when accidents occur. Such incidents could be prevented and reduced if safety education and awareness campaigns were enhanced within the transportation sector. These could be through educational programs in schools, operators and communities. Provision and promotional activities in the use of protective gear such as life jackets to passengers, control of over-load and fitness inspections of boats could go a long way in reducing fatal accidents. The project shall, therefore include in its educational campaigns these aspects that target the boat operators and passengers.

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### **e) Institutional arrangements and capacity building requirements**

LVBC, an institution of the EAC, will be responsible for overall project oversight at regional level to guarantee a uniform strategy and establish a strong basis for organizational cooperation in future. In the

LVBC structure, the office of the Environment and Natural Resources Management Officer (ENRO) under the Deputy Executive Secretary Projects and Programmes which is an established position in the EAC broader structure will be responsible for the technical management of the project for its day to day operations. The position of ENRO being an established position is taken as a Unit charged with managing and coordinating environment and safeguards issues in LVBC. The HIV/AIDS and gender dimension in the ESMP will be overseen by the Regional Programme Coordinator for the Population, Health and Environment Programme. LVBC will also constitute a Steering Committee which will be responsible for overall policy, constant review, approving work plans and coordination of project implementation as well as quarterly reporting on the project. At the national level, the respective national environment management agencies will play an oversight role on the implementation of the project and quarterly report to the ENRO at LVBC.

At the moment, the ENRO seems to be primarily responsible for broader environmental and natural resources issues in the Basin, EIA processes are equally in his docket to oversee safeguards compliance in a number of on-going projects an activity that would stretch him and therefore, it is envisaged that, there will be need for some technical support to ENRO. This is likely to be the case in the short-term since LVBC is soon going to operationalize the Results Based Management System (RBMS) which is aimed at aligning its institutional and program level designs to enhance its performance.

However, with respect to the delivery and operationalization of the project objectives, inevitably, there will be need for awareness creation amongst the fishermen and water travellers on the need for safety and life jackets to be worn at all times while on the water. Other areas of capacity needs will be on the HIV/AIDS, First Aid amongst others which will be required for both LVBC staff including (MRCC and SARs) and its key stakeholders as well as fishermen and travelling public.

It is important to reckon that, search and rescue operations will not be entirely LVBC affair alone. LVBC will take a lead in coordinating the process because of the complexity of issues relating to search and rescue activities. In light of these, it is envisaged that, upon receipt of communication from MRCC regarding incident necessitating search and rescue in the lake, the SARs will quickly alert its collaborating agencies at the landing sites which include; revenue management agencies, maritime management authorities, police marines and related marine security agencies and local fishermen amongst others who will all swing into action. This is important in that, sometimes distress calls can be because of pirates, attack from wild animals (crocodiles) or oil spillage and such operations will necessitate a coordinated intervention which cannot be effectively handled by SARs alone.

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#### **f) Public consultations and disclosure requirements**

During the preparation of the ESMP, public and stakeholder consultations were held with a cross-section of stakeholders which included the respective Environment Management Agencies in the three Partner States of Kenya, Tanzania and Uganda on matters regarding the project categorization, approval modality and related ESIA aspects of the project. Consultative meetings were also held LVBC Environment and Natural Resources Officer whose office serves as an Environmental Units since is an established position in the EAC organization structure. Meetings were also held with Regional Program Coordinator, Population, Health and Environment (PHE) Programme in LVBC HIV/AIDS as well as with the Maritime Safety Officer (MSO) in LVBC. Additional meetings were held with line Ministries and Statutory Agencies for water transport in the Partner States as well as with the Meteorology agencies. The study also included meetings with Communications Regulatory Agencies i.e. Tanzania Communications Regulatory Agency-TCRA, Ministry of ICT as well as Uganda Communications Commission, and Kenya Communications Commission. Other meetings were with telecommunications mobile service providers and with NGOs such as Safe Waters and Women Groups operating in fishing landing sites. During the study, there were also meetings with the management of the Beach Management Units (MBUs), agencies responsible for fisheries in the partner states as well as local governments responsible for administration of the beach units including Lake Victoria Fisheries Organization (LVFO).



### g) Disclosure of the ESMP

Once the ESMP is finalized, LVBC will send copies of it to the Environment Management Agencies in Kenya, Uganda and Tanzania. The Environment Management Agencies, in the respective countries will send copies of the ESMP to the lead agencies responsible for water transport or transport (for the case of Uganda), fisheries and water for their comments on the ESMP. Internally, the Environmental Agencies will also undertake their own review of the ESMP and generate their comments. Once the lead agencies finish reviewing the ESMP, they will send their comments within 14 days to the Environmental Management Agencies will aggregate their awaiting LVBC to convene a meeting to discuss the ESMP.

After 14 days after delivery of ESMP to LVBC, LVBC will convene a meeting of the Environmental Agencies in the three countries to discuss their comments on the ESMP after which, the three Agencies will each issue an Approval with conditions for the ESMP and copies of the Approval will be copied to EAC Secretariat. As per the provisions in the EAC management structure, LVBC will later present a report on the ESMP to the Coordination Committee for Permanent Secretaries for adoption of the report.

On the Bank side, once the ESMP is finalized, its Executive Summary shall be posted on the Bank's website, submitted to the Bank's Public Information Centre, and distributed to the Bank's Tanzania and Uganda Field Offices and East Africa Resource Centre (Nairobi) for at least 30 days before the project is presented to the Board. In order to meet this deadline, the final ESMP has to be submitted to the Bank by December 2014.

### h) Estimated costs

Some of the environmental and social intervention costs to be undertaken in the project are summarised on the Table below as follows:

#### Summary of ESMP costs

| Nº. | Mitigation Activity  | Cost (USD)     |
|-----|--|----------------|
|     | ESMP Interventions   | 65,000         |
|     | a. HIV/AIDS Mainstreaming  |                |
|     | b. Gender Mainstreaming  |                |
|     | c. OHS interventions   |                |
|     | d. Planting vegetation   |                |
| 01. | Sold Waste collection enclosure in Mwanza  | 10,000         |
| 02. | Environmental Monitoring   | 20,000         |
| 03. | Complementary Initiatives  |                |
|     | a. Sheds for Women working of Nile Perch Backs –( <i>Mgongo wazi</i> )                       | 80,000         |
|     | b. Support to Safe Waters Africa Women Group making local Life Jackets                       | 50,000         |
| 04. | Training and capacity building   | 200,000        |
|     | a. Training on survival skills, First Aid, swimming and general search and rescue operations |                |
|     | b. Mobilization and sensitization of stakeholders and collaborating agencies at the SARs     |                |
| 05. | Environmental Audit costs  | 30,000         |
|     | <b>TOTAL</b>   | <b>465,000</b> |

The total project cost for the implementation of the environmental and social measures is estimated to be **USD 465,000** which will be incorporated in the overall project costs.

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**i) Implementation schedule and reporting**

Measures outlined in the ESMP will be implemented under the overall project implementation schedule as all most of the environmental and social interventions will be incorporated into the project design and implementation. The reporting on the implementation process and progress of the ESMP provisions will be done in line with the overall project framework and any environmental and social aspects requiring actions will be addressed by the PIU and the Bank.

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**j) Conclusion**

The LVMCT is no doubt a timely project whose interventions will go a long way to addressing navigational safety on the Lake which will provide impetus for investments in maritime transport in line with the overall objectives of regional integration as enshrine EAC strategies.

However, the project will very much need the involvement of other stakeholders in the Lake such as; revenue management authorities, police and security marine agencies, Red Cross, maritime management authorities and line sectoral ministries, local fishermen, NGOs involved in maritime search and rescue as well as wildlife management authorities. These agencies have to be brought on board and a coordination and information sharing mechanism instituted to effectively mount successful search and rescue operations in case of an event in the lake.

By and large, the LVMCT will have large positive socio-economic impacts on the economy and on the lives of the fisher and travelling communities on the Lake. Its negative environmental and social impacts will be minimal, localized and short term which can be mitigated through operationalization of proposed mitigation measures in the ESMP.

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