

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN SUMMARY

Project Title: LIBERIA: URBAN WATER SUPPLY AND SANITATION PROJECT
Project Number: P-LR-E00-003 **Country:** LIBERIA
Department: OWAS **Division:** OWAS.1

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

The project was categorized as Category 2 on 15-05-2009 according to the ADB Environmental and Social Policies and Procedures. The categorization is justified on the basis of considerable positive impact envisaged by the project which components are: 1) rehabilitation and extension of water production and distribution networks, 2) Construction of sanitation facilities in public places such as public schools, hospitals, market places and car parks. The proposed project seeks to (i) improve access to adequate, safe and reliable water supply and public sanitation services to the people in the towns of Monrovia, Buchanan, Kakata and Zwedru on a sustainable basis (ii). Enhance the institutional, operational and management capacity, and (iii) Ensure the long-term institutional and financial viability of LWSC.

b) Major environmental and social impacts

The project is classified as Category 2 based on the ADB Environmental and Social Policies and Procedures. Categorization is justified on the basis that the project is mainly: 1) rehabilitation and extension of water production and distribution networks, 2) Construction of sanitation facilities in public places such as public schools, hospitals, market places and car parks; 3) Institutional Support and, 4) Project Management. An Environmental and Social Impact Assessment (ESIA) has been prepared and finalized in June 2009, as well as an ESMP to be posted. The following impacts are expected: 1) key adverse impacts from the prevailing environmental conditions negatively affecting the project and its results, rather than the reverse, especially during operation: high water table in Monrovia and some areas of three county capitals, garbage littering and poor sanitation with high risks of contamination and recontamination of water sources and distribution networks. Mitigation measures include careful timing of construction to be conducted during the dry season, and local chlorination at specific locations along the water distribution network to address potential recontamination and ensure delivery of safe water; 2) project's negative impacts on the environment are more likely to occur during construction and could easily be mitigated by the implementation of the measures described in the ESIA reports and through a strict environmental monitoring program; 3) impacts expected from the project are mainly positive as the project aims at improving access to safe water supply and hygienic sanitation services. Detailed cost of mitigation is in the annex B8. The total mitigation cost for the project is UA 558,160 and is a subcomponent of the works.

c) Enhancement and mitigation program

- The mitigation measures resulting from the environmental and social assessments:
 - o Construction of sludge management and disposal system at the White Plains Water Treatment Plant;
 - o Key adverse impacts from the prevailing environmental conditions could negatively affect the project and its results, rather than the reverse, especially during operation: high water table in Monrovia and some areas of three county capitals, garbage littering and poor sanitation with high risks of contamination and recontamination of water sources and distribution networks. Mitigation measures include careful timing of construction to be conducted during the dry season, and local chlorination at specific locations along the water distribution network to address potential recontamination and ensure delivery of safe water;
 - o Protection of borehole sites from pollutions (fencing);
 - o Project's negative impacts on the environment are more likely to occur during construction and could easily be mitigated by the implementation means described in the ESIA reports and through a strict environmental monitoring program;
 - o Prevention of work place injuries during construction is taken care of by the contractors;
 - o Impacts expected from the project are mainly positive as the project aims at improving access to safe water supply, proper disposal of treatment sludge and hygienic sanitation services.
-

d) Monitoring program and complementary initiatives

Monitoring includes monitoring of the implementation of the mitigation measures to assess their efficiencies and eventually develop other mitigation measures if the expected results are not reached. The other aspect of monitoring activities is the evolution of the environment that includes climate change.

e) Institutional arrangements and capacity building requirements

- The water agencies and state institutions responsible for environment and social actions will supervise project implementation units to insure implementation of the mitigation measures and monitoring. Results of the monitoring will be used to improve project implementation, and provide information for project supervision.
- As mitigating measures are implemented, training and capacity buildings to monitor environmental parameters and their evolution over time as well as to monitor the implementation of the mitigation measures. This is meant to measure the efficiency of the mitigation measures adopted.
- Public health awareness/sanitation and hygiene promotion are planned to be carried out to address the issues resulting from bad behaviors and lack of understanding that leads to poor hygiene and health conditions.

f) Public consultations and disclosure requirements

Public consultation has been fully undertaken during field environmental and social impacts assessment exercises. Inputs from local populations and other stakeholders have been integrated. The ESIA reports are available at the water agencies. This ESMP summary is posted at the ADB PIC and made available to the ADB Board 30 days prior to project submission.

g) Estimated costs

KEY IMPACTS REQUIRING MITIGATION	MITIGATION MEASURES	UA
Work place safety and treatment of injuries.	Provision of first aid kits and serum for snake venom. The areas crossed by the main pipeline is a rural zone hosting a lot of poisonous snakes that may bit workers	This is to be covered by the contractors
In Monrovia the situation of land scarcity is so high that there is no possibility of acquiring any piece of it sanitation facilities or water kiosks.	Under the ongoing projects financed by WB and JAICA, the Municipality signs a memorandum of understanding with the owners to rent a place to install water and sanitation facilities. Considering the situation the ADB project joined the practice already underway.	The cost of this arrangement will be on the Municipality and yet has to be determined.
Partial or full destruction of shops and wall/parts of houses during construction.	Compensation of affected people to rehabilitate their assets after construction.	The cost of assets partially destroyed due to construction is taken under the contracts with the contractors.
Limited environmental capacity of the population involved in and benefiting from the project as well as of staff of institutions involved in the project.	Environmental capacity building to raise local population awareness, and environmental capacity building for the project team and the institutions involved in the project.	426,805
Pollution of the borehole field from subsurface runoff, and other human wastes.	In addition to walling of the Magami borehole field planting of a 30 m tree belt to clean polluted subsurface runoff. This includes also removing all waste littering the Magami borehole field.	25,769
	TOTAL (including physical & price contingencies)	558,160

h) Implementation schedule and reporting

All mitigation measures will be implemented along side with the implementation of project components as required and planned in the project implementation schedule.