INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC13224

Date ISDS Prepared/Updated: 09-Jul-2015

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I. BASIC INFORMATION

A. Basic Project Data

Country:	Malawi	**Project ID:**	P153205
Project Name:	Lilongwe Water Project (P153205)		
Task Team Leader(s):	Josses Mugabi		
Estimated Appraisal Date:	08-Feb-2016	**Estimated Board Date:**	18-May-2016
Managing Unit:	GWA01	**Lending Instrument:**	Investment Project Financing
Sector(s):	Water supply (80%), Irrigation and drainage (10%), Public administration-Water, sanitation and flood protection (10%)		
Theme(s):	Urban services and housing for the poor (20%), Water resource management (80%)		

Financing (In USD Million)

Total Project Cost:	290.00	Total Bank Financing:	71.00
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	23.00
International Development Association (IDA)	71.00
African Development Bank	55.00
EC European Investment Bank	101.00
Foreign Private Commercial Sources (unidentified)	40.00
Total	290.00

Environmental Category:	A - Full Assessment
Is this a Repeater project?	No

B. Project Objectives

The Project Development Objective is to improve water supply to Lilongwe, and improve the operational and financial performance of the Lilongwe Water Board. This will be achieved through

targeted investments in the Lilongwe Bulk Water System and technical assistance to LWB and MAIWD to improve the efficiency and sustainability of water services and to support the Lilongwe Water Program.

The Project will support the Lilongwe Water Program with the objective to expand access to water services in Lilongwe through improved bulk water supply, improved distribution and improved capacity of MAIWD and LWB to better manage water services. The Program will be supported by a number of Development Partner through discrete projects. These projects will either be co-financed or parallel financed.

C. Project Description

The Government is embarking on the Lilongwe Water Program. The Program will expand access to water services in Lilongwe through improved bulk water supply, improved distribution and improved capacity of MAIWD and LWB to better manage water services. Individual Development Partners may finance projects under the umbrella of the Program, in a similar manner in which the National Water Development Program is being implemented. The Government has requested the Bank to play the role of lead Development Partner in the Program in addition to financing an investment component. Financing from the Bank will be through the Lilongwe Water Project.

The Program is expected to include three components, as follows:

Component 1--Lilongwe Bulk Water Supply: The objective of this component is to secure a new water source for Lilongwe to meet the city's water demand until 2045. Water requirements has been developed based on the 2011 Sogreah feasibility study. However, given recent rapid population growth and urban expansion in Lilongwe, this will be further reviewed during project preparation. Physical investments cover the capital requirements for the bulk water supply system, comprising the Diamphwe Multipurpose Dam, raw water transmission system, water treatment plant, and treated water transmission main to the city. The detailed design and the ESIA for the bulk water system are currently underway, and will impact the final dimensions of the system, but based on the feasibility study, the following are the main sub-components:

- Diamphwe Multipurpose Dam: The feasibility study recommended a dam site on the lower Diamphwe River. The dam would be about 30 meters (m) high and built of roller compacted concrete (RCC). The dam design assumes an outflow of 2.6 m3/s for drinking uses and 0.6 m3/s for irrigation uses. The feasibility of a future irrigation system that would use some water from the Diamphwe Dam is being considered under a separate study.

- Water Treatment Plant (WTP): The WTP is being designed to use conventional treatment processes, notably coagulation-flocculation tanks, settling tanks, filters, and disinfection. The WTP would be located 3.5 km from the dam wall. The estimated capacity of the WTP up to 2045 would be 210,540 m3/day.

- Transmission Main: The raw water transmission main will pump water from the Diamphwe Dam to the WTP. The transmission main will gravitate treated water from the WTP to the city over a distance of 30 km. All of Component 1, including the transmission main, will be covered by an Environmental and Social Impact Assessment (ESIA) that will include an Environmental and Social Management Plan (ESMP), along with a separate Resettlement Action Plan (RAP); preparation of the ESIA and RAP is underway.

Component 2--Lilongwe Water Distribution System: The objective of this component is to improve access to water supply for customers in Lilongwe, particularly the poor. The water supply reticulation system in Lilongwe is old and requires rehabilitation and expansion to meet the growing needs of the city. A feasibility study is being commissioned to consider priority rehabilitation and expansion needs of the city to expand coverage to unserved parts of the city (poor areas in particular) and to reduce leakages. Preliminary cost estimates are that $68 million is required for this component. Government is seeking financing from AfDB for this component. All of Component 2 will have a separate Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) that are due to be completed and publicly disclosed at about the same time as the ESIA and RAP for Component 1.

Component 3: Technical Assistance and Program Management: The objective of this component is to enhance the capacity of MAIWD and LWB to provide efficient and sustainable water and sanitation services and to support the management of the Program, with the following sub-components:

- Technical assistance to MAIWD: This sub-component will support the establishment of a national regulator in the water sector. The national regulator is envisaged as independent, professional tariff setting body best suited to balance interests of customers and Water Boards, with public accountability in the tariff setting function.

- Institutional strengthening of LWB: The objective of this component would be to support LWB in improve operational and financial performance. The need for this component– and which financier may support it–will be considered during project preparation.

- Water and Sanitation Master Plan: Both Central and Local Government (in particular, the Lilongwe City Council and District Council) and LWB have expressed a need to for water supply and sanitation Master Plan for Lilongwe . This will provide a plan for further investments in the city to address the rapidly growing population and changing demographics. The Master Plan will also assess the policy, legal, and institutional aspects of water services in Lilongwe and highlight the associated environmental and social issues. More detailed and corresponding safeguards tools will be developed as the Master Plan evolves to specific targeted investments at the feasibility and detailed design stages.

- Program Management: The proposed Project will support a Program Coordination Unit (PCU) within MAIWD and/or LWB that will support the implementation of the program. The PCU will include all necessary project management capacity, including technical, procurement, financial management, monitoring and evaluation, and environmental and social safeguards expertise.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Component 1 includes the Diamphwe Multipurpose Dam, water treatment plant, and transmission mains (treated water pipelines). The proposed Diamphwe Dam would create a water storage impoundment, flooding approximately 2,200 hectares (ha) of land. The dam and associated water treatment plant, storage tanks, and the main portion of the treated water pipeline (about 30 km) would be located in the rural parts of the Lilongwe and Dedza districts. The remaining portion of the water pipeline would traverse through sections of urban Lilongwe. The dam would be on the Diamphwe River, about 2 km upstream from the Diamphwe River Bridge on the M-1 Highway

between Lilongwe and Blantyre. The topography around the proposed Diamphwe Dam site varies from flat to hilly. The land to be inundated by the dam is extensively cultivated by small farmers, although there are some natural habitats present including dambos (seasonal grassy wetlands) and remnant forest patches, along with the Diamphwe River itself. Human settlements in the area comprise small villages and isolated rural houses. Local households generate their income from agriculture, animal husbandry, micro- and small-scale enterprises, and formal and informal employment. Vulnerable groups within the project area include the elderly, women, and orphans.

For Component 1, an Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) will be prepared. Significant environmental and social issues that will require specific attention in the ESIA and RAP include:

- Natural habitats and biodiversity--terrestrial and especially aquatic. With respect to the latter, the ESIA will need to indicate the likely impacts and proposed mitigation measures involving threatened fish species, crocodiles, and other aquatic life. The ESIA is also expected to recommend (as part of the project's Environmental Management Plan) which fishery species could be developed within the future Diamphwe impoundment without threatening the survival of native aquatic species.
- Environmental flows to be released from the dam, including water availability for downstream users along the Diamphwe River.
- Water quality within the new impoundment, as well as downstream.
- Public health issues associated with tropical dams, including malaria and possibly schistosomiasis.
- Physical cultural resources within the planned inundation zone and other project footprint areas. Of special concern is the expected inundation of one or more cemeteries, a culturally sensitive issue that will need to be properly addressed.
- Catchment management options to help minimize reservoir sedimentation, with respect to reservoir-edge lands, erodible agricultural lands, and the upstream Dzalanyama Forest Reserve.
- Involuntary resettlement, involving both the physical relocation of households and the need to replace agricultural and grazing lands that will be inundated with alternative land or other livelihood options.
- Potential induced seismicity associated with the large weight of water built up in the dam area.
- Construction-related environmental and social issues typically associated with large civil works.

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Although Diamphwe is officially envisioned as a multi-purpose dam (for potable water supply, irrigation, and fisheries), the proposed project does not finance any irrigation infrastructure, except that the dam design will include 1-2 irrigation intake devices, which will keep open the option of connecting a future (not yet defined) irrigation scheme to the dam. This new irrigation could encompass up to 1,000 ha of suitable land (not yet specifically identified) and would use water from the dam that is not delivered to Lilongwe city nor needed for downstream environmental flow releases. If and when such a future irrigation project is designed (outside the scope of this current water supply project), it would be evaluated on its own terms and subject to its own separate ESIA, RAP, and/or other safeguards documentation (as needed).

Component 2 (Lilongwe Water Distribution System) would be built within the general Lilongwe metropolitan area, but the specific locations are not yet known of the water distribution pipelines and associated civil works, as well as the specific neighborhoods, businesses, or households to be affected by the construction. These civil works are to be designed mainly during Project Year 1.

Accordingly, an Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) will be prepared for Component 2 in advance of project appraisal. The ESMF and RPF are intended to enable the proper management of environmental and social impacts, including the preparation of site-specific ESIAs with ESMPs and RAPs as needed during project implementation .

E. Borrowers Institutional Capacity for Safeguard Policies

The World Bank has been engaged with the water sector in Malawi for the past 8 years. Over this period there has been progressive capacity building for the implementation of Bank Safeguard Policies as well as national environmental standards. The managers of LWB and MAIWD have considerable understanding and regard for the Safeguards Policies. Project staff assigned to this project include a safeguards specialist who has been working with environmental and social issues in the preceding National Water Development Program. LWB and MAIWD also have a well-functioning relationship with Malawi's (i) Environmental Affairs Department that is responsible for ESIA approval and (ii) Lands Department that oversees resettlement and compensation issues. Additional environmental and social capacity building assistance for LWB and MAIWD would take place under the proposed project, including the contracting of specialized staff as needed to implement specific provisions of the ESMP and RAP. With strong implementation support from the Bank Safeguards Team and continued capacity building under the project, LWB and MAIWD should have adequate capacity to effectively implement the project's safeguards requirements.

F. Environmental and Social Safeguards Specialists on the Team

George Campos Ledec (GENDR)

Kristine Schwebach (GSURR)

Webster Munhundiripo Muti (GWA01)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	This is a Category A project. The project involves a large dam and related infrastructure and many of the typical environmental and social issues (including resettlement) that accompany such a project. An ESIA and RAP will be formulated for Component 1, comprising the dam, water treatment, and transmission pipeline investments. Component 2, the Lilongwe Water Distribution System, would be built within the general Lilongwe metropolitan area, but the specific locations are not yet known of the water distribution pipelines and associated civil works, as well as the specific neighborhoods and host environment; therefore, a separate ESMF will be produced for this component.
Natural Habitats OP/BP 4.04	Yes	The Diamphwe River provides habitat for wide range of aquatic life including Nile Crocodiles and possibly some globally threatened fish species. The potential occurrence of threatened fish species in the project area will need to be confirmed by the ESIA, along

		with adequate mitigation measures if any adverse impacts are expected. The planned inundation area is largely agricultural, but includes some natural habitats including dambos (seasonal grassy wetlands).
Forests OP/BP 4.36	TBD	The inundation zone includes some remnant forest and woodland patches, including along the river and within traditional wooded cemeteries. From a catchment management standpoint, the Diamphwe Dam benefits from the upstream Dzalanyama Forest Reserve (which would not be inundated by the dam).
Pest Management OP 4.09	TBD	Construction and operation of the project will not require pest, vector, or weed management, with a few potential exceptions to be examined under the ESIA. These exceptions might possibly involve the control of floating aquatic weeds on the impoundment and/or increased efforts to control malaria or other vector-borne diseases in the project area.
Physical Cultural Resources OP/BP 4.11	Yes	The Diamphwe project area has several cemeteries, at least one of which would be submerged by the dam. The possibility also exists that other physical cultural resources might be uncovered during project construction . The ESIA will assess the impacts of Component 1 upon cemeteries and any other cultural resources; the associated ESMP will recommend appropriate cultural resources management, consistent with OP 4.11 and applicable Malawian legislation and cultural traditions. The ESMF will also address any cultural resources issues within Component 2. Both the ESMP and ESMF will include Chance Finds Procedures, for any physical cultural resources that might unexpectedly be found during project construction.
Indigenous Peoples OP/BP 4.10	No	There are no people within the project area who meet the Indigenous Peoples criteria of OP 4.10.
Involuntary Resettlement OP/ BP 4.12	Yes	A preliminary visit to the project area suggests that 5 villages of about 150 households (roughly 1,000 people) might need to be relocated to accommodate the new Diamphwe Dam, reservoir, and adjacent buffer zone. A more accurate assessment will be done through the Resettlement Action Plan (RAP). To date, the people consulted have generally expressed a preference to be relocated within the same local area. Accordingly, the RAP will likely include support for agricultural intensification and

		other income generating activities, to help ensure that the livelihoods of affected people will be maintained and improved within the available land area. Aside from the new Diamphwe Dam and reservoir, some resettlement or compensation for land taken might also be needed with respect to the water treatment plant, storage tanks, and/or water transmission pipelines. Before any civil works are undertaken that would affect people's lands or other physical assets anywhere in the project area, (i) the Final RAP will need to be reviewed and cleared by the World Bank and (ii) the corresponding compensation or other mitigation measures specified in the RAP will need to be properly implemented. Component 2, the Lilongwe Water Distribution System, would be built within the general Lilongwe metropolitan area, but the specific locations are not yet known of the water distribution pipelines and associated civil works, as well as the specific neighborhoods, businesses, or households to be affected by the construction; hence a Resettlement Policy Framework (RPF) will be prepared.
Safety of Dams OP/BP 4.37	Yes	The proposed Diamphwe Dam (30 meters high) is considered a large dam under OP 4.37. In accordance with this policy, project preparation will provide for the necessary precautions, including an independent panel of dam safety experts, dam safety plans, and periodic safety inspections during dam operation.
Projects on International Waterways OP/BP 7.50	Yes	The Diamphwe River eventually flows into Lake Malawi, an international water body. However, the water storage and abstraction attributable to this project will not measurably affect the quantity or quality of water in this very large and deep lake.
Projects in Disputed Areas OP/ BP 7.60	No	The entire project area is undisputedly within Malawi.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 05-Jan-2016

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS:

[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

Work on the ESIA and RAP began in 2014. However, owing to deficiencies in the quality and timeliness of intermediate outputs received, the Lilongwe Water Board decided (with World Bank concurrence) to terminate the consulting contract. A new consulting team will be selected, with the assignment of completing the (i) ESIA (including ESMP) and RAP for Component 1 and (ii) ESMF and RPF for Component 2, all by about November 30, 2015 .

Component 2 (The Lilongwe Water Distribution System) would be built within the general Lilongwe metropolitan area, but the specific locations are not yet known of the water distribution pipelines and associated civil works, as well as the specific neighborhoods, businesses, or households to be affected by the construction; and ESMF an RPF will be prepared by about November 30, 2015 to manage social and environmental impacts and guide the preparation of ESIA/EMPs and RAPs as needed . Respective cultural resources management actions will be articulated in the ESIA and RAP for the dam, water treatment, and transmission investments, and in the ESMF and RPF for the distribution component.

IV. APPROVALS

Task Team Leader(s):	Name: Josses Mugabi	
Approved By:		
Safeguards Advisor:	Name: Johanna van Tilburg (SA)	Date: 09-Jul-2015
Practice Manager/ Manager:	Name: Steven N. Schonberger (PMGR)	Date: 16-Oct-2015

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