**INTEGRATED SAFEGUARDS DATA SHEET**  
**CONCEPT STAGE**

**Report No.:** ISDSC4521

**Date ISDS Prepared/Updated:** 25-Jul-2013  
**Date ISDS Approved/Disclosed:** 25-Jul-2013

## I. BASIC INFORMATION

### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country:</th>
<th>Malawi</th>
<th>Project ID:</th>
<th>P125473</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name:</td>
<td>Shire Valley Irrigation Project (P125473)</td>
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<tr>
<td>Task Team Leader:</td>
<td>Pieter Waalewijn</td>
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<tr>
<td>Estimated Appraisal Date:</td>
<td>01-Oct-2015</td>
<td>Estimated Board Date:</td>
<td>15-Dec-2015</td>
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<tr>
<td>Managing Unit:</td>
<td>AFTA3</td>
<td>Lending Instrument:</td>
<td>Specific Investment Loan</td>
</tr>
<tr>
<td>Sector(s):</td>
<td>Irrigation and drainage (70%), Agro-industry, marketing, and trade (15%), Agricultural extension and research (15%)</td>
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<tr>
<td>Theme(s):</td>
<td>Water resource management (40%), Infrastructure services for private sector development (20%), Rural services and infrastructure (20 %), Land administration and management (15%), Natural disaster management (5%)</td>
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</tbody>
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### Financing (In USD Million)

| Total Project Cost: | 340.00 | Total Bank Financing: | 100.00 |
| Total Cofinancing: | Financing Gap: | 240.00 |

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
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<tbody>
<tr>
<td>BORROWER/RECIPIENT</td>
<td>0.00</td>
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<tr>
<td>International Development Association (IDA)</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
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### Environmental Category:

- A - Full Assessment

### Is this a Repeater project?

- No

## B. Project Objectives

To sustainably increase agricultural productivity and incomes for targeted households in the districts of Chikwawa and Nsanje in the Shire Valley by establishing market-linked smallholder farming ventures and professionally operated irrigation services.

## C. Project Description
The Shire Valley Irrigation Project (SVIP) would be located in the south of Malawi on the right bank of the Shire River. The population of the Shire Valley, according to the 2010/11 census, is approximately 711,000. Depending on the final footprint, approximately 55,000 households live in the project area. The area contains the highest incidence (75 percent) of extreme poverty in Malawi. Droughts and floods pose a persistent threat of famine. Eighty-eight percent of the project area is held under customary tenure and administered by traditional authorities. Approximately 10 percent is under private lease or freehold and the remainder is public land. The most important developments in the area are the estates of Illovo and its outgrower schemes. Illovo produces cane on a total of 13,805 ha and also operates the only sugar factory in the area.

The Government requested support from both the WB and the AfDB to provide assistance for the implementation of the SVIP. The WB and AfDB responded to this request with a joint AfDB/World Bank/IFC project identification mission in January 2011. The mission established several key principles to guide the design and implementation, including that: the project would focus on commercial production, including smallholders in high value chains; professional management and PPPs would be pursued; land and water management need careful and transparent attention; communities should be fully engaged in a participatory process; and the Government would competitively recruit a full time team for the preparation of the project. The GoM responded favorably to these principles in January 2012. The WB and AfDB further supported the project preparation with: a) a Public-Private Infrastructure Advisory Facility (PPIAF) funded/WB executed study on the prefeasibility options for Public Private Partnerships; b) African Water Facility (AWF) financed prefeasibility studies, which produced a Prefeasibility Report on the proposed project and support to GoM in the development of detailed ToRs for undertaking a comprehensive set of feasibility level studies; and c) a study on water availability assessment for the scheme was also completed recently considering the impacts of the bulk irrigation water upstream of the last hydropower plant (Kapichira) in the cascade. The study shows that there is a minor trade-off with energy production in average and dry years once the scheme is fully established and the proposed expansion of the hydropower station is on-line.

Following a holistic growth-pole approach that combines infrastructure development with, from the very beginning, delivery of technical, institutional and marketing support services, the project will include three intertwined components:

Component 1 - Irrigation Development and Management

This component will finance the phased development of up to 42,500 ha of irrigation and drainage with associated irrigation services in the Lower Shire Valley as a necessary precondition for agricultural development. The pre-feasibility study has recommended two phases:

Phase I – covering about 21,000 ha currently irrigated with water directly pumped from the Shire river consisting of about a) 10,750 ha already developed and directly cultivated with Sugar cane under commercial production by Illovo plus b) about 750 ha developed by out-growers operationally and commercially linked with Illovo; and c) another 9,300 ha of rainfed agricultural lands proposed to be developed for irrigated agriculture;

Phase II – covering about another 21,000 ha of which: a) about 2,850 ha have already been developed by Illovo for irrigated sugar cane with pumped water from Shire river; and b) the remaining area of about 18,150 ha of currently rainfed agricultural lands to developed for irrigated
The project would finance the feasibility level studies and engineering designs for both the Phase I and Phase II and the construction of the physical bulk water conveyance and distribution system and the tertiary irrigation system and associated drainage infrastructure and facilities of the first phase of the Project. The currently irrigated areas would be converted to a gravity water supply, thus saving significant pumping costs (the Nchalo estate is currently the largest electricity consumer in the country because of its pumped irrigation system). The new bulk water supply system would be governed by a membership-based apex organization of water users’ associations with strong representation from the Government in an unprecedented institutional set-up in the country, of which the form, nature and legal and operational modalities will have to be further defined during project preparation. The project will also include provisions for ensuring capacity is maintained beyond the project and that clear contracting and operating arrangements are in place that reflect the farmers’ as well as the public interests. The scheme would be operated and maintained by a private partner in a PPP arrangement, either as a concession, a lease or as a management contract, depending on the partner’s interest in project financing, as well as further assessment of the ‘willingness to pay’ and ‘ability to pay’ the water tariffs.

Component 2 – Smallholder-based Agricultural Modernization and Commercialization

Agricultural development would be based on promoting development of productive and competitive ventures between agribusiness and producer's organizations and through the provision of demand-driven agricultural services as extension, applied research, mechanization, training, input/output marketing, value adding and storage, etc. These services could be provided through a range of approaches including promoting service delivery within farmer organizations, contracting out to services providers, organizing joint services between private agribusiness investors and farmer groups, and PPPs in agriculture service delivery. Smallholder farmers would be assisted to organize themselves, through a participatory planning and development process, into consolidated blocks of irrigable land. Commodity-based producer organizations will be organized in partnerships with profitable value chains that also provide commodity specific support services – on similar lines to the current sugar outgrower schemes that have developed partnerships with Illovo. Initial scoping showed private sector interest in irrigated agriculture in the lower Shire, as it is relatively close to transport links and markets, and has very favorable agro-ecological circumstances.

Long term presence of Illovo with their knowledge, experience and interactions with the local farming community is seen as an opportunity for the project: as both a producer and processor, the company has ventured into sustainable ventures with smallholder growers and would be strongly committed to the success of the infrastructure development as well as to smallholder outgrowers on whom they would rely for throughput for their factory. In addition, other value chains will be actively explored and investors attracted to develop profitable and viable agriculture production systems and to promote a modernized smallholder-based farming system.

Component 3 – Investment climate support and coordination

This component would finance activities related to the coordination and actual implementation of the activities in the Shire Valley as well as activities supporting the investment climate in which the scheme will operate. This includes both costs for project management and the transition from project based support to a sustainable institutional set-up with a contracting authority for the scheme; as well as sector and cross-sector coordination with the agriculture, water, industry, trade, environment
sector plans and frameworks, and facilitate interministerial collaboration on tackling implementation
challenges.

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

The project area encompasses portions of the lower Shire River Valley in the Chikwawa and Nsanje
Districts of southern Malawi. The project’s civil works would extend from north to south, beginning
with the irrigation water intake just upstream of the existing Kapichira Dam on the Shire River and
continuing south to the cultivation areas on the right bank of the Shire River. The project’s area of
influence includes two important protected areas, Majete Wildlife Reserve and Lengwe National
Park; portions of both would likely be crossed by the main irrigation canal. The project’s net
irrigable area (both Phases I and II) would encompass up to 42,500 hectares (ha), of which some
12,000 ha are already under irrigation (mostly sugar cane) and the balance (roughly 30,000 ha) is
currently under a combination of rain-fed crops, fallow, and natural or modified woodland and
savanna vegetation (none within existing or proposed protected areas).

As per the last Integrated Household Survey (2010) the population of Chikwawa is 461,705 and that
of Nsanje 250,159 people. Nsanje District has the highest incidence (76 percent) of extreme poverty
of all 28 districts in Malawi, followed closely by Chikwawa (65.8 percent). The predominantly
subsistence smallholder farming system relies heavily on rainfall and is vulnerable to unreliable
weather. Like elsewhere in the country, the vast majority of the rural population (90 percent)
consists of smallholder farmers on, cultivating small and fragmented pieces of land held under
customary land tenure. Despite the size of the rural population, settlement in the Valley is scattered.
Small villages are generally concentrated on higher grounds along the river bank or beside the roads.
Housing conditions are poor. Maize is the staple food in the area, but sorghum and millet are also
important. Yields and cropped areas are often insufficient to meet household requirements. Droughts
and floods pose a persistent threat of famine. The total area of the two districts is approximately 6,700
km², the large majority of which is under customary tenure. The Shire Valley is the most important
cotton production area in the country, and it is home to sugar estates and outgrowers, which are
characterized by high input-high outcome agriculture, and Illovo is the largest employer in the
Valley.

While this proposed project would only support the construction of Phase I, the SVIP’s
environmental and social safeguards analysis will encompass both phases; this is because the
completion of Phase I would make the development of Phase II very likely and will be designed to
accommodate this second phase (owing to economies of scale).

E. Borrowers Institutional Capacity for Safeguard Policies

The two main ministries that would be responsible for project implementation are (i) Ministry of
Agriculture and Food Security (MoAFS) and (ii) Ministry of Water Development and Irrigation
(MoWDI). Other Government agencies that would have specific roles in project implementation
include the Ministry of Lands and Housing (responsible for surveys, land registration and titling and
resettlement/compensation within the irrigation areas); Environmental Affairs Department (EAD,
responsible for environmental reviews and approvals); Department of Antiquities (DoA, responsible
for cultural heritage) and National Parks and Wildlife (responsible for the Majete and Lengwe
protected areas). All of these entities have recent experience with the Bank’s Safeguard Policies,
based on other projects currently under implementation, including the Irrigation, Rural Livelihoods
and Agricultural Development Project (IRLADP), Agriculture Sector Wide Approach – Support
Project (ASWAap-SP), Shire River Basin Management Project (SRBMP), National Water
Development Program (NWDP), and the GEF-funded Nyika and Nkhotakota protected areas projects. In particular, staff in MoAFS and MoWDI have been exposed to several training sessions on Bank Safeguard Policies. EAD has also undertaken harmonized safeguards training at the national and district levels, emphasizing Government requirements as well as the Bank policies.

Nonetheless, the SVIP will be a complex and challenging project for Government to address in terms of environmental and social safeguards. With respect to surface area irrigated, SVIP (at full development) would be about 50 times the size of the largest existing public irrigation project in Malawi (Bwanje Valley Irrigation Scheme). Accordingly, the project’s Environmental and Social Management Plan (ESMP) would specify additional training and other activities to strengthen Government’s capacity to address environmental and social safeguards issues in large-scale irrigation projects. The ESMP would also outline a robust system for environmental supervision of civil works construction, to help overcome any existing gaps in Government’s environmental regulatory capacity.

F. Environmental and Social Safeguards Specialists on the Team

George Campos Ledec (AFTN3)
Yasmin Tayyab (AFTCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
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<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The project involves a number of interventions and investments that are range from large scale infrastructure support to agricultural intensification and associated services. The potential footprint of the project is generally well known, and a number of impacts can be predicted already. The complexity of this multi-sector operation will require a number of safeguard tools to properly minimize and mitigate potentially adverse environmental and social impacts generated by specific project investments. This Category A project will involve the preparation of an independent Environmental and Social Impact Assessment (ESIA), including an Environmental and Social Management Plan (ESMP). ESIA preparation will include extensive stakeholder consultations, including on the ESIA terms of reference and the draft ESIA report itself. The ESMP will include Environmental Rules for Contractors (ERCs) that cover (i) site-specific Technical Specifications; (ii) Rules of Conduct for all construction personnel; (iii) special precautions for any construction work within the Majete and Lengwe protected areas; and (iv) transparent penalties for non-compliance. The ESIA will...</td>
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<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
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<td>To help ensure compliance with OP 4.04 (Para. 4), the ESIA will need to demonstrate how the SVIP could be built without causing significant degradation of Majete Wildlife Reserve or Lengwe National Park. The project’s planned footprint within Majete has already been greatly reduced by locating the irrigation canal intake at Kapichira Dam (rather than Hamilton Rapids, which would have cut off a large part of the park from the Shire River). In Lengwe, the proposed canal alignment would cut through the Park for about 10 km. The ESIA will examine options—including modified canal design, developing additional wildlife watering areas, and support for improved Park protection and management—for minimizing adverse impacts and ideally producing a net gain from a conservation standpoint. Since Lengwe suffers from chronic water shortages (being cut off from the Shire River by existing sugar estates), improving water availability for the local wildlife through SVIP might prove to be environmentally beneficial. Any SVIP support to Lengwe National Park would be additional and complementary to the support expected under the ongoing SRBMP. Within the irrigation command area, the project would support “strategic habitat retention” (as per OP 4.04, Para. 5) of some remaining areas of natural vegetation in multi-purpose Reserve...</td>
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Areas. The ESIA would also carefully assess the expected impacts of abstracting 30-50 m³/s of irrigation water on the Elephant Marsh, a large wetland along the lower Shire River which harbors impressive biodiversity, as well as providing fishing and other livelihoods for thousands of local residents. The ESMP would recommend feasible mitigation measures to help maintain and enhance the Marsh, in coordination with the measures planned under the SRBMP.

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<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Forests OP/BP 4.36</td>
<td>Yes</td>
<td>Construction of the main irrigation canal would involve clearing a right-of-way through native woodlands within the Lengwe National Park and a small portion of the Majete Wildlife Reserve. However, since SVIP is not a forestry project, OP 4.36 imposes no additional requirements beyond those of OP 4.04.</td>
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<tr>
<td>Pest Management OP 4.09</td>
<td>Yes</td>
<td>The project will include a Pest Management Plan (PMP) that will cover (i) promotion of Integrated Pest Management (for irrigated crops) and Integrated Vector Management (for malaria, schistosomiasis, etc.); (ii) safe handling, storage, transport, and disposal of pesticides, including technical assistance (TA) to out-grower farmers; and (iii) criteria and procedures for safer pesticide selection. The PMP will be based on the harmonized PMP set up in Malawi for projects in the agricultural sector, and set up as a “living document”, with procedures for periodic revision, as the crop mix changes over time and new pest issues might emerge.</td>
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| Physical Cultural Resources OP/BP 4.11 | Yes | The proposed scheme is located in an area of known historic habitation and trade, and has landscape elements of cultural value. During ESIA preparation and (as needed) in the early stages of SVIP implementation, a systematic survey will be carried out by qualified professionals of the main canal right-of-way and other planned civil works sites, to check for archaeological relics, fossils, human graves, shrines, sacred trees or groves, and other physical cultural resources (PCR). Items of cultural interest will be systematically recorded and salvaged as appropriate. The specific locations of some civil works might need to be
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<tr>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
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</tbody>
</table>
| Involuntary Resettlement OP/BP 4.12        | Yes Within the future SVIP irrigation area, some people will lose their houses or (more commonly) rain-fed croplands and grazing lands to make room for project civil works, including canals, roads and other structures. The Resettlement instrument will determine number of impacted people, and assets and develop appropriate compensation for loss of assets (preferably land-for-land). In addition, there will be need for land redistribution and consolidation to enable the shift to irrigated agriculture (re-alignment with canals, accommodating PAPs affected by infrastructure development, receiving irrigated land-for-land compensation, entrance of new agribusiness ventures within the area, etc.). These impacts are more indirect than direct resettlement and are linked to increased risk of indebtedness, new rules of use, as well as a physical shift of plot boundaries. Even though much of this may be voluntary (with the ultimate benefit of increased production, land value and stability of livelihoods in mind), it will be very critical that decisions are taken based on a detailed understanding of current land tenure arrangements, including their gender aspects, and that potential project beneficiaries opt in or out based on informed consent. The available options for people living in the proposed irrigation area could include (i) participating in the irrigation scheme as an irrigation farmer, (out grower or otherwise) or employee; (ii) relocating onto alternative (non-irrigated) land identified by the project; or (iii) cash compensation (especially for PAPs without land-based livelihoods and/or the tenants). A detailed Resettlement Policy Framework (RPF) will be prepared prior to project appraisal. Although the general project area is known, precisely which households will be affected (and by how much) will only be known upon...
### III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 01-Jun-2015

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:

   The Environmental and Social Impact Assessment (including Environmental and Social Management Plan and Pest Management Plan) and Resettlement Policy Framework will be completed (as good quality drafts) prior to Appraisal. The notification under OP/BP 7.50 as well as the Safety of Dams Assessment will be undertaken prior to Appraisal, and reflected in the PAD Stage ISDS, which will be prepared prior to the decision meeting for Appraisal.

### IV. APPROVALS

<table>
<thead>
<tr>
<th>Task Team Leader:</th>
<th>Name: Pieter Waalewijn</th>
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\(^1\) 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.
<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>Regional Safeguards Coordinator</td>
<td></td>
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</tr>
<tr>
<td>Sector Manager</td>
<td>Tijan M. Sallah (SM)</td>
<td>25-Jul-2013</td>
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