



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 11/10/2021 | Report No: ESRSC02383



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Malawi	AFRICA EAST	P176575	
Project Name	Shire Valley Transformation Program - Phase 2		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	3/29/2022	6/21/2022
Borrower(s)	Implementing Agency(ies)		
Ministry of Finance	Ministry of Agriculture		

Proposed Development Objective

To provide access to gravity-fed irrigation services, provide secure land tenure for smallholder farmers, lay the foundation for increased agriculture productivity and commercialization in areas developed for irrigation under SVTP-1, and improve natural resources productivity.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>250.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

SVTP-2 will develop gravity irrigation infrastructure in the Shire Valley that will deliver water to blocks of land where commercial agriculture will be practiced. Demarcation and adjudication of all parcels of land in the project area will be carried out so that parcel holders can get a land record and amalgamated customary estates can be formed and licensed. Agriculture blocks will be developed in close cooperation with the landholders that have contributed land to the customary estates for a variety of commercial crops, while blocks developed under phase I of the program will receive necessary support to start agriculture productivity. Considering the sensitive environment and biodiversity of the project area, SVTP-2 will strengthen management of wetlands, forests, and protected areas and construct infrastructure that has been identified in the management plans.



#### **D. Environmental and Social Overview**

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The entire program aims at irrigating about 43,370 ha of land in Chikwawa and Nsanje Districts to enable up to 100,000 small holder farms from Chikwawa and Nsanje Districts to benefit from gravity irrigation. Like the ongoing SVTP-1, the SVTP-2 will develop gravity irrigation infrastructure in the Lower Shire Valley that will deliver water to blocks of land where commercial agriculture will be practiced. The Lower Shire Valley contains protected areas, biodiversity resources and communities centered around the River Shire. SVTP-2 will construct a main canal with a length of about 80 km, the first 14 km of which will be through the through the Lengwe National Park, secondary canals and irrigation blocks, and ancillary/associated facilities including night storage. During the construction works, contractors' will establish compounds and potentially workers' camps, equipment storage yard/s, quarries, waste management areas, borrow areas, access roads and spoil areas.

Demarcation and adjudication of all parcels of land in the project area will be carried out so that parcel holders can get a land record and amalgamated customary estates can be formed and licensed. Agriculture blocks will be developed in close cooperation with the landholders that have contributed land to the customary estates for a variety of commercial crops, while blocks developed under SVTP-1 will receive necessary support to improve agriculture productivity.

The area where the project will be implemented is in the Lower Shire Valley of the Southern region of Malawi, specifically Chikwawa and Nsanje districts, and is considered one of the poorest areas in the country. The 2018 census puts the population of Nsanje and Chikwawa at 299,168 (of which 143,578 are female and 155,590 are male) and 564,684 (of which 276,890 are female and 287,794 are male) respectively with poverty rates of 55 percent as per the 2018 IHS.

The 2017 ESIA prepared under SVTP I indicates that the average household size in the area is 4.4 persons, which is slightly lower than the national average. Households own parcels of land ranging from less than 0.12 ha to over 4 ha, of which 69% is used for small scale agriculture and 28% for settlement. Only 2% of the parcels were used for irrigation and less than half a percent for grazing, business, renting out or other uses.

In 2017 an ESIA of the Shire Valley Irrigation Project was disclosed which assessed the environmental, social and health and safety impacts of all phases and areas affected by the Shire Valley Transformation Program, including the canal network and associated development plots from the intake to Bangula. It covered the works to be undertaken in all three phases of the project, including those that are proposed for financing as part of SVTP-2. However, some changes to the development areas are predicted (for example to include areas on the west side of the canal), and these together with the detailed design of the main canal, alignment of the secondary canals, location of the industrial park and night storage areas, will need to be assessed. In addition, the ESIA will need to be reviewed to ensure it reflects the ESF, current conditions, and to reflect lessons learned from the implementation to date of SVTP-1.

SVTP-1 was prepared in accordance with the Bank's safeguards requirements, and the instruments that were prepared included: ESIA, ESMP (for SVTP-1), PMP, PF, RPF, GRM and Communications Plan. As SVTP-2 will apply the



ESF, these documents will be reviewed and updated for the ESF, and in addition, an SEP, LMP, ESCP and ESMP for SVTP-2 will be prepared.

SVTP-1 has consistently recorded an overall Safeguard rating of Satisfactory in ISRs, and the latest ISR (May 2021) records the good progress made, including in meeting with 11,162 willing landowners, identifying 14 consolidated areas of land to create development blocks totaling 11,000ha, and with the implementation of the GEF-funded activities.

#### D. 2. Borrower's Institutional Capacity

The proposed investments are large and complex but not unprecedented in Malawi. GoM has successfully implemented a number of WB funded water sector, agricultural and irrigation operations over the years, including the National Water Development Program - NWDP (2007-2015), the Shire River Basin Management Program (2012-19), the ongoing Lilongwe Water Sanitation Project, and the ongoing Malawi Resilience and Disaster Risk Management Project and Shire Valley Transformation Program phase I.

Over this period, there has been progressive capacity building for the implementation of World Bank (WB) Safeguard Policies and national environmental and social standards, but less so for the ESF.

The SVTP is being implemented by the Ministry of Agriculture (MoA) and in particular the Department of Irrigation (DoI) which also had and has several World Bank funded projects under implementation and therefore experience with the World Bank environment and social safeguard policies, but has not implemented projects with the World Bank ESF. The Ministry has set up a PMT to implement and manage the first phase of the project, which has an Environmental Specialist and a Social Development specialist. The PMT safeguards specialists have adequately managed environment and social risks (including the successful implementation of a Resettlement Plan (RP) involving 1,305 PAPs of which 220 were physically relocated) for the SVTP-1. It is expected that the PMT will maintain the same structure for the second phase, although the PMT will be bolstered with an additional environment and an additional social specialist during the implementation of SVTP-2. During the construction phase, supervision will be undertaken by a supervising engineer, that will include adequate environmental, social and health and safety specialists to supervise the whole of the works.

During the preparation mission, meetings with stakeholders were undertaken to help inform on project implementation, including with African Parks, Department of National Parks and Wildlife, Ministry of Labour (OHS Inspectorate), Environmental Affairs Department, and with a representative Grievance Committee in Chikwara. The feedback received was largely positive and indicated that the PMT safeguards team were aware of and largely meeting commitments. Meetings were also held with the contractor and supervision engineer, who had appropriate and competent safeguards staff in place. The design organisation also had access to safeguards staff. Proposals for continual improvement were shared with the PMT following the mission.

Components of SVTP-1 have been lead by Department of Natural Parks and Wildlife (DNPW), Department of Fisheries (DoF) and Department of Forestry. It is expected that they will continue to implement roles in relation to the implementation of measures under Component 4 of SVTP-2. Their performance has been deemed satisfactory to date. Additional consultant support will be required to study and determine any appropriate actions with respect to



waste management. Ministry of Labor may become involved in developing and providing training on safety and health matters in the valley, tasks which are part of their normal work program.

**II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS**

**A. Environmental and Social Risk Classification (ESRC)**

High

**Environmental Risk Rating**

High

The first 14km of the main canal to be constructed under SVTP-II will be through Lengwe National Park. The recommendations provided in SVTP-I ESIA for how this construction can minimize adverse impacts and result in a net gain for conservation (for example by increasing water availability for Lengwe’s wildlife and supporting improved park protection and management) will be revised and updated as necessary prior to appraisal as part of the update of the ESIA. The area of the Lengwe National Park that will be affected by the construction of the canal separates “old” Lengwe (a reserve rich in Nyali, which are at the northernmost part of their range) from “new” Lengwe (which is a more recent extension to the National Park), and may not only form a barrier for the movement of species from “old” to “new, but also hinder the movement of game keepers to safeguard animals and habitats in the south of the reserve. The Shire Valley floodplain contains Elephant Marsh, a wetland of international importance that is designated as a Ramsar site. Elephant Marsh provides flood attenuation, fisheries and a rich biodiversity of rooted and floating swamp vegetation, approximately 26 species of breeding waterbirds, and a number of fish and invertebrate species endemic to the area. The Marsh is of interest for eco-tourism. The impacts of the program from the accumulation of herbicides, pesticides or fertilizers as a result of the agricultural intensification will be considered. The rural population in the Shire Valley consists mainly of smallholder farmers, and villages scattered across the valley. According to the ILO, agriculture accounts for the greatest number of fatalities as a result of safety incidents and or from exposure to chemicals, pesticides, fertilizers, etc., and the population will be exposed to new and increased risks as a result of the exposure to agricultural intensification. The construction of an open steep sided canal may bisect traditional routes and could attract the local population. As such the canal could pose a risk to the safety of the rural population, for example from drowning. The project will further a series of initiatives in other national parks, game reserves and forest reserves, with the aim of strengthening biodiversity resources in the valley as a whole and providing improvements to the watershed. These initiatives are yet to be finalized, but are expected to include scale up and implementation of the Community Conservation Area Management Plan prepared as part of SVTP-1 for Elephant Marsh, including engaging with local communities to introduce sustainable livelihoods, through ecosystem-based fisheries management, integrated agriculture aquaculture (e.g through fish ponds), post-harvest fish technologies and supporting sustainable tourism activities as an alternative income source. Components 1 & 3 have the same EHS risks relating to construction activity (of canals, development blocks, industrial park etc.), most of which will occur in modified habitats already affected by agricultural practices. The advice to be provided to development blocks as part of Component 3 will include measures to retain any areas of natural habitat, guide decisions on selection of energy and resource efficient equipment/machinery, and disseminate the measures agreed in the PMP for safe agricultural practices with respect to pesticides. No significant EHS risks are predicted in relation to Component 2 (land tenure). The EHS risks associated with Component 4 will become clearer as the proposals become developed prior to appraisal, but are unlikely to be different to those encountered and managed as part of SVTP-1, namely some small-scale negative impacts to protected areas to result in overall positive improvements to

Public Disclosure



the remaining natural resources in the valley. As per the current works, each intervention will be subject to screening and an ESMP will be prepared prior to each activity.

**Social Risk Rating**

High

The program aims to irrigate about 43,370 ha of land in Chikwawa and Nsanje Districts, in order to increase the population’s economic prospects and food security. Overall, the project is expected to promote socio-economic benefits for the country in general and the Valley in particular and extend opportunities for transformation to the wider rural population through improved agricultural land and water productivity in the agriculture sector. The affected population consists mainly of small-scale subsistence farmers practicing some form of agriculture and small stock keeping. According to the results of the survey conducted on the ESIA, the average household size for the sampled population is 4.9 in the SVTP Phase 1 and 5.1 in the SVTP Phase 2 areas. Groups considered vulnerable, disadvantaged or marginalized include the poor, PLWDs, orphans, the elderly, youth and women and these groups are impacted by poverty and economic shocks. About two thirds of the area is customary land, controlled by the Chiefs (Traditional authorities). Land for cultivation is allocated by the chief and a farmer can claim traditional rights to land he has once farmed. The area has both patrilineal and matrilineal kinship systems. In spite of the matrilineal systems inequalities in land distribution, access and ownership exist with men having more decision making power over land use. The main potential impacts arising from the implementation of the project will relate to: the loss of land holdings and privately owned assets on that land, resulting in physical displacement and disturbances and economic displacement resulting from impacts on livelihoods; possible loss of communal and public resources and assets including productive land, river resources and structures, sports grounds and other public infrastructure; impacts to social networks and organizing as a result of physical relocation; loss of access to natural resources e.g. from potential access restrictions to the parks and protected areas; risks and impacts associated with land tenure and consolidation including exclusion based on gender, ethnicity, age, socio-economic status, elite capture and conflicts; impacts on vulnerable populations/social categories who by virtue of gender, ethnicity, age, physical or disability, economic disadvantage or social status may be vulnerable to changes brought about by project activities such as land consolidation, or who may be excluded from its associated benefits. Additional risks include construction related health and safety risks to communities and workers; food security risks arising from the change of land use, risks associated with labor management and demand for local employment, labour influx related risks including the spread of infectious and sexually transmitted diseases such as HIV, covid19 and other communicable diseases, exacerbation of GBV/SEA/SH and possible security and crime related risks; as well as possible disputes over water distribution among the water users. Both the ESIA and RPF have taken into consideration these risks and impacts and outlined comprehensive management plans and strategies. The updated ESIA’s socio-economic baseline and assessment has incorporated a gender and youth strategy, labour influx management and GBV/SEA/SH mitigation plan, health and safety management plan, cultural heritage management plan among other measures to address risks. The RPF has outlined a land tenure diagnostic, allocation and consolidation strategy to manage potential land tenure and consolidation risks as well as Livelihood restoration strategy to address economic impacts affecting vulnerable groups. A Resettlement Plan prepared and implemented for the SVTP I impacted 1,305 PAHs (220 physically relocated). The SVTP I main canal was designed to avoid graves and gravesites thus circumvent social risks associated with the relocation of graves, and SVTP II intends to apply the same principles.

Public Disclosure

**B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

**B.1. General Assessment**



## ESS1 Assessment and Management of Environmental and Social Risks and Impacts

### **Overview of the relevance of the Standard for the Project:**

The 2017 environmental and social assessment is considered adequate to provide a sound initial assessment of the environmental and social risks and impacts which can be expected for all the SVTP phases. However, the instrument was prepared under WB Safeguard Policy requirements, and an update has been undertaken to ensure alignment with the ESSs. Direct impacts from the SVTP II project will result from the abstraction of water for the SVTP irrigation scheme, and for the SVTP-2 construction of the remaining section of the main canal, secondary canals and irrigation blocks, ancillary/associated facilities such as the night storage, and contractors' camps, borrows, quarries and spoil areas to be undertaken under Components 1 and 3. Indirect impacts include pesticide/herbicide/fertilizer run-off and increase in wastes associated with the transformation of the valley. In addition to financing SVTP-1, the Bank is currently financing sustainable landscape initiatives in the upper and middle Shire through the Malawi Watershed Services Improvement Program; is considering financing Mpatamanga Hydropower scheme upstream of SVTP which is expected to be composed of two dams, a HPP dam and a flow regulation dam; financed the Shire River Basin Management Program which established coordinated development planning mechanisms to the Shire River Basin. As such the cumulative impacts of the scheme with these other investments as well as other existing and proposed users of the River Shire will need to be carefully considered as part of the update of the ESIA. The key environmental receptors for components 1 and 3 of SVTP-2 will be Lengwe National Park, River Shire and Elephant Marsh and potentially some small fragments of natural habitat remaining within the valley. Component 4 is yet to be fully defined but is expected to include critical infrastructure development in Lengwe National Park (and potentially other game and forest reserves in the Lower Shire Valley) to help stabilize and improve these resources and assist in progressing towards sustainable financing of these reserves (for example by putting in roads to support sustainable tourism). Some small and localized impacts under Component 4 could be expected from the development of measures to manage increasing waste and other pollution streams arising as the valley transforms, for example, for on farm composting facilities and potential waste disposal facilities. Social risks and impacts identified in the ESIA include land use change, including loss of landholding and assets on land; loss of communal resources; loss of public property; disturbances to livelihoods and loss of access to a natural resource base; health impacts as reservoirs can become breeding grounds for disease vectors; impacts on the aesthetic value of living conditions and scenery, particularly with the creation of canals and irrigation infrastructure; risks and impacts associated with land tenure and consolidation including social exclusion based on gender, ethnicity, age, socio-economic status and elite capture and conflicts; Additional social risks and impacts anticipated include impacts to social networks and organizing as a result of physical relocation; collective adverse impacts on vulnerable populations/social categories; health and safety risks to communities and workers; food security risks arising from the change of land use; risks associated with labor influx management and demand for local employment, including the spread of infectious and sexually transmitted diseases; exacerbation of Gender-Based Violence/Sexual Exploitation and Abuse and Sexual Harassment (GBV/SEA/SH) and possible security and crime related risks; as well as possible disputes over water distribution among the water users. Measures in place to manage GBV/SEA/SH in the SVTP I include a full time external GBV Service Provider to facilitate access to timely, safe and confidential services for survivors, assessment of GBV risks in the project's Environmental and Social instruments, sensitizations on GBV risks as part of stakeholder consultations, mapping out GBV prevention and response services in project area of influence, GBV champions selected and trained from the community, availability of an effective grievance redress mechanism (GRM) with multiple channels to initiate a complaints including GBV related, GBV-related costs included in contracts and other procurement documents, CoCs signed and understood by all contractor and consultant staff among other measures. These measures will be maintained for the second phase of the operation. Both the ESIA and RPF have taken into



consideration these risks and impacts and outlined comprehensive management plans and strategies. The updated ESIA's socio-economic baseline and assessment is comprehensive and considered adequate to provide sound assessment. It has incorporated a gender and youth strategy, labour influx management and GBV/SEA/SH mitigation plan, health and safety management plan, cultural heritage management plan among other measures to address risks. Both the ESIA and RPF have outlined a land tenure diagnostic, allocation and consolidation strategy to manage potential land related and non-land related tenure and consolidation risks, as well as Livelihood restoration strategy to address economic impacts affecting vulnerable groups. The Resettlement Plan prepared and implemented for the SVTP I impacted 1,305 PAHs (220 physically relocated). The SVTP I main canal was designed to avoid gravesites thus circumventing social risks associated with the relocation of graves, and SVTP II intends to apply the same principles during the design of the main canal and subsidiary channels. SVTPII will manage land acquisition and resettlement risks through preparation and implementation of several RAPs for i. the main canal and associated facilities such as the night storage, and ii. the secondary canals and irrigation blocks and other infrastructure. The social baseline and assessment that has been undertaken within the ESIA has captured risks and impacts on vulnerable groups and individuals and has taken into account project beneficiaries, directly and indirectly affected populations in the project area. Environmental risks identified in the 2017 ESIA relevant to SVTP-II include impacts to biodiversity and natural resources (for example at Lengwe National Park and Elephant Marsh Ramsar Site), use of pesticides, herbicides, and chemical fertilizers (the health of population and of sensitive habitats, such as Elephant Marsh), safety associated with the open canal, health and safety during the construction of the main canal and other associated features, and siltation, hydrology and aquatic ecology/fisheries (particularly of the Shire River and Elephant Marsh). It is noted that the 2017 ESIA considered Lengwe National Park to be in sub-optimal condition, supporting only small numbers of a limited range of game species, and subject to poaching and illegal logging. Opportunities to improve the condition of the park have been studied during SVTP-1 and appropriate measures will be incorporated into the design of SVTP-2 to improve conditions at the Park. For example, the design of the canal through the park will consider the provision of water for animals, impacts of fragmentation and the intrinsic hazard the canal presents to wildlife. Environment and social risks and impacts will be assessed and addressed in :- i. revised and updated ESIA; ii. ESMP that will include details for managing H&S, Cultural Heritage, labor influx/GBV management, Gender and Youth strategy and plan, and sub-project screening and ESMP preparation of ancillary activities iii. an update of the PMP; iv. RPF that will contain an updated land tenure diagnostic, allocation and consolidation strategy; v. Updated PF; vi. SEP with a Communication Strategy and GM; and vii. LMP.

**Areas where “Use of Borrower Framework” is being considered:**

Use of borrower's framework is not being considered for this project. The project will comply with the Bank's new Environmental and Social Framework and its Environmental and Social Standards, as well as with the applicable WBG EHSs. The Project, however, is still subject to the national and local permits and clearances as per the existing institutional framework. The exact requirements to obtain such permits and clearances will be recorded in the ESCP.

**ESS10 Stakeholder Engagement and Information Disclosure**

The current SVTP I has in place a consultation, engagement and communication strategy, within which extensive consultations with the existing smallholders in the Shire Valley have been undertaken in relation to both the preparation/implementation of safeguard instruments as well as in the groundwork for irrigation service provision. The SVTP I also has a Grievance Mechanism (GM) that has been operating in relation to project affected persons,



project workers and the general public. The GM has been designed, with support from the external GBV Service Provider, to also take on sensitive GBV related complaints and incidents. The main types of grievances that have been processed through the GM relate to compensation and the dumping of waste by the contractor. The GM has so far received and processed 147 grievances. Of these, 5 grievances remain unresolved and are in the process of resolution. While the GM is reviewed on a regular basis and improvements made as needed, recent incidents in the SVTPI have necessitated the re-assessment of the overall GM in order to enhance the uptake and redress of contractor workers' complaints and improve responsiveness to GBV complaints by contractor workers. The consultation, engagement and communication strategy under the SVTP I that has been used during preparation phase of SVTP II to ensure engagement of communities and stakeholders in the preparation of SVTP II including design, risk scoping and environment and social risk management instruments and mitigation measures. For the SVTP II, a comprehensive SEP will be developed, prior to appraisal, to provide a detailed roadmap on the consultation and engagement of relevant stakeholders including affected persons and interested parties during project implementation. The SEP will undertake stakeholder identification to identify the nature of the anticipated stakeholders as well as their information requirements, timing, and methods of engagement throughout the lifecycle of the project. The SEP will include measures for engagement and consultation during project preparation and implementation, a Communication Strategy/Plan, and an accessible inclusive Grievance Mechanism in accordance with ESS10. The current SVTP I Communication Strategy/Plan and operating Grievance Mechanism will be reviewed and updated to reflect lessons learned, alignment to ESS10 and relevance to the context and scope of SVTP II. In preparing and implementing the SEP, the implementing agencies will ensure that all COVID-19 preventive measures are adhered to.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

The Project plans to support large construction of physical investments which would entail a large workforce of skilled and unskilled workers that could be engaged as direct workers, primary supply workers, and contracted workers. The current SVTP-1 has in place construction camps and the same would be expected under SVTP-2. Relevant mitigation measures to be implemented under SVTP-2 will be specified in the Labor Management Procedures (LMP) setting out details for preparing labor management plans as needed during project implementation and including guidance to address potential child and forced labor and arrangements, GBV/SEA/SH, Covid-19, and a Grievance Mechanism for the workers. Provisions will be made in the ESIA and ESMP, and subsequent contractor documents to train and hire as much labor as possible from local communities where the activities are taking place. The ESIA and ESMP will include sections on Environment and Health and Safety (EHS); civil works contracts will incorporate the health and safety, social and environmental mitigation measures identified, drawing on the WBG EHS Guidelines as necessary. Requirements to maximize employment from the local communities, corresponding training arrangements, and specific language referencing the prioritization of the hiring of unskilled local labor will be included. All civil works contracts will include standard Codes of Conduct that include measures to prevent GBV/SEA/SH. The LMP will set out procedures in which all project workers will be managed in accordance with the requirements of national law and ESS2. For construction workers this includes the terms and conditions of employment, non-discrimination and equal opportunity, and the right to organize, including the establishment of



workers' organizations, worker health, and safety set out in the contract. The civil works contract will include measures to ensure that labor-management measures are in place for all workers and that the health and safety of workers, taking into account associated risks in the project area and different classes of hazards in the construction areas, including physical, chemical, biological, hydrological, and specific threats to women are given adequate attention. It will include the minimum legal age for work and a corresponding approach to child and youth labor. The civil works contracts will also include minimum standards to be achieved for any worker accommodation and worker transport to be provided by the contractor. The contract will including the minimum requirements for the grievance redress mechanism for workers and the roles and responsibilities for monitoring such workers. Measures to prevent and mitigate potential GBV/SEA/SH risks involving project workers will be included in contractor and worker contracts, and codes of conduct and other measures will be contained in a GBV Prevention and Response Plan in the ESMP.

Project specific risks relating to occupational health and safety, including from activities that are particularly dangerous or will expose workers to abnormal hazards, will be identified in the ESIA and ESMP, and appropriate controls will be required as part of the Civil Works Contracts. The Civil Works Contracts will require the contractor to prepare and implement an approved Occupational Health and Safety manual (OHSM), which will describe the safe systems of work to be adopted as well as measures to be taken to minimize the spread of infectious disease, including COVID. Health and Safety measures will also be needed for the operational phase, with respect to the handling of agricultural chemicals, use of machinery and the presence in the community of deep open water canal; mechanisms for integrating OHS into the operational phase of the project elements will be determined prior to appraisal and described in the ESMP.

The OHS measures will take into account the World Bank Group's General Environment, Health, and Safety Guidelines (EHSGs), and other Good International Industry Practices (GIIP), as well as the Interim Note on COVID 19 Considerations in Construction/Civil Works Projects.

The ESIA and ESMP will describe the measures to be incorporated into the design and construction phases to mitigate for environmental impacts, including for impacts to Lengwe National Park. Contractors would need to develop Contractor's Environmental and Social Management Plan (CESMP) to the approval of the supervising engineer that describes the exact measures that the contractor will take to conform with the mitigation requirements. Both the CESMP and the OHSM will be prepared and approved prior to the commencement of any construction activity.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

Under Component 1 and 3, the project will not be a significant user of energy, as the water will flow through the main canal based on gravity. However, blocks may use pressurized irrigation (center pivots, sprinklers, drip) which would require energy. In addition, land that is currently irrigated through pumping from the River Shire that under the project will switch to the gravity-fed scheme will help to offset any additional energy requirements.

The advice to be provided to farms/development blocks as part of component 3 will address issues relating to selection of equipment, machinery and processes based on their ongoing energy usage.

The 2017 ESIA assessed in detail the water balance for the project and recognized how the impact would be only of moderate significance if the canal provides water to Illovo, so that the Illovo pumps are switched off. The canal



constructed under component 1 will be concrete lined as recommended in the ESIA to avoid water leakage, and there will be no significant difference in evaporation whether the water is in a canal or in the river. As described in the 2017 ESIA, the net abstraction of water for irrigation is 8% of the low flow from the Shire River: the project is not a significant user of water.

Component 3 of the project will use efficient irrigation methods, including surface, drip or center pivot. These techniques will minimize losses from evaporation.

The project's Pest Management Plan (PMP) will provide criteria and procedures for the: (i) promotion of Integrated Pest Management for the crops to be irrigated as a result of the project; (ii) safe handling, storage, transport, and disposal of pesticides, including technical assistance (TA) to farmers; and (iii) criteria and procedures for safer pesticide selection. The PMP is intended to be a "living document", with procedures for periodic revision, as the crop mix will likely change over time and new pest issues might emerge. The PMP will be reviewed and updated as necessary to ensure it reflects the requirements of ESS3 during the preparation of the project, and will be implemented through Component 3.

The Shire River Basin Management Program (SRBMP) is the Government of Malawi's chief tool for managing the cumulative impacts of multiple investments within the Shire River Basin, as well as the multiple demands upon the Shire River's water resources. The SRBMP supports inter-sectoral development planning and coordination mechanisms to balance the impacts of development and water use in the Shire Valley.

The update of the ESIA and ESMP will take into consideration ESS3 and will describe measures to ensure compliance, including where necessary the control measures that contractors for Component 1 & 4 will be required to implement (as per EHS Guidelines) to prevent pollution through spillage or mishandling of hazardous materials and chemicals, as well as for the generation, handling and disposal of hazardous and non-hazardous wastes during the works.

Under component 4 of the project, studies will identify mechanisms for managing the increases and changes in the types of waste that are likely to arise during operation (component 3) as the valley transforms. Component 3 will include advice regarding on-farm waste management, including composting for reuse of biomass, as well as storage and reuse of chemical containers etc as part of container buy-back schemes.

As described in the 2017 ESIA, quarry sites that may be suitable for use during the construction of the canal under Component 1 are Kajawo, Thabwa existing quarry, Nsongwe and Ngabu (KRC, 2016). Detailed information will be provided as the Design progresses and potential impacts will be assessed in the updated ESIA and specific measures provided in the ESMP.

#### **ESS4 Community Health and Safety**

Large civil works such as included in this project can pose risks to local communities' health and safety. The 2017 ESIA identified the increase of vector-borne and water borne diseases, increased incidence of HIV/AIDS and the risk of drowning particularly for children. In the same regard, the updated ESIA will re-assess community health and safety risks relating to the construction and operation of the infrastructure in accordance with ESS 4, including exposure to



natural hazards (e.g. more regular storms resulting from climate changes) and physical hazards (e.g. unsafe operation) and accidents (e.g. fire, electrocution, traffic-related, drowning).

Community health and safety risks during construction include exposure to: (i) physical hazards on sites where the community may gain access; (ii) traffic and road safety hazards associated with the operation of project vehicles (i.e. government, contractors, suppliers) on public roads and at construction sites; (iii) health issues including waterborne, and vector-borne diseases which may result from poor site management (e.g., stagnant water), and communicable diseases such as HIV/AIDs and COVID19 associated with labor influx; and (iv) hazardous materials used/stored by contractors, and Emergency Response with procedures to respond to accidents and incidents as well as the specific risks associated with construction and operation of large water canals.

Community risks are expected to remain during operation, including health issues, e.g., water borne disease due to irrigation canals and irrigation, exposure to pesticides, accidents such as drowning or traffic hazards due to agricultural product/materials movement. Preparation of the ESIA and ESMP will ensure compliance with the requirements of ESS4, including through appropriate infrastructure design for safety.

The operation (canal and related construction) is expected to generate a significant labor influx. GBV risk has been assessed as substantial, and specific assessment and mitigation measures will be provided for in the ESIA including a Labour Influx Management and GBV/SEA/SH Prevention and Response Plan as part of the ESMP. The current project SVTPI has in place GBV/SEA/SH prevention and response measures aligned to the project's level of risk including assessment of GBV risks in the project's Environmental and Social Impact Assessments, sensitizations on GBV risks as part of stakeholder consultations, mapping out GBV prevention and response services in project area of influence, GBV champions selected and trained from the community, availability of an effective grievance redress mechanism (GRM) with multiple channels to initiate a complaints including GBV related ones, GBV-related costs included in contracts and other procurement documents, CoCs signed and understood by all contractor and consultant staff, a full time GBV Services Provider to facilitate access to timely, safe and confidential services for survivors among other measures. These measures will be maintained for the second phase of the operation. COVID-sensitive approaches will need to be implemented throughout project implementation, including adherence to ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects.

As in the SVTP-1, it is expected that SVTP-2 may require the use of security personnel, for example at the entry points to Lengwe National Park. An assessment will be undertaken as part of the ESIA and a Security Management Plan will be prepared as part of the ESMP, compliant with the requirements of ESS4 and Good Practice Note on Assessing and Managing the Risks and Impacts of the Use of Security Personnel.

The ESIA and ESMP will make use of the general and sector-specific EHSs in relation to community health and safety.

The irrigation scheme will get its water from the lake created behind the Kapichira Dam, that is owned by and under the management of the EGENCO (the electricity generator in Malawi). An intake for the irrigation scheme is currently under construction under SVTP-1. The safety of Kapichira Dam and its operation will be indispensable for the successful operation of the scheme. A two-member Panel of Experts (PoE) on Dams carried out three missions to Malawi during 2014-17 as part of the preparation of SVTP-1. The PoE concluded in its final report dated January 31, 2017 that the dam appears to be in sound condition. It made the recommendation that independent inspections should be carried out every five years by an engineer with no connection to the owner or to the original designers of the dam. During preparation of SVTP-2 there will be discussions with the dam owner to agree on the next dam inspection. The requirements for dam safety for the whole transformation program were agreed and set out in the SVTP-1 project. As part of the MTR for SVTP-1 these issues will be considered, and as necessary any additional or new measures can be integrated into SVTP-2.



### ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The project will require land acquisition leading to displacement (both economic and physical), loss of assets, livelihoods, and access, restrictions on land use to make way for the construction and associated civil works on the 80 km main canal, the secondary canals and irrigation blocks, associated facilities such as the night storage, an industrial park. There is also the possibility of displacement from the need for other auxiliary facilities such as workers' camps, equipment storage yard/s, quarries, waste management areas, borrow areas, access roads, etc. Other land related impacts likely to arise from land tenure and consolidation include exclusion based on gender, ethnicity, age, socio-economic status, elite capture and conflicts. The affected population consists mainly of small-scale subsistence farmers practicing some form of rainfed and/or irrigated agriculture and small stock keeping. According to the results of the survey conducted on the ESIA, the average household size for the sampled population is 4.9 in the SVTP Phase 1 and 5.1 in the SVTP Phase 2 areas. About two thirds of Shire Valley Agricultural Development Division (SVADD) is customary land, controlled by the Chiefs (Traditional authorities). Land for cultivation is allocated by the chief and a farmer can claim traditional rights to land he has once farmed. Land not used for cultivation can be accessed and used by anybody for grazing. Customary land includes grazing lands, markets, grounds, graveyards etc. The area has both patrilineal and matrilineal kinship systems. In the patrilineal system, women do not own land but have access to it, while in matrilineal kinship they have access to and own land. In spite of the matrilineal systems inequalities in land distribution, access and ownership exist with men having more power over land than women including decision making on land use. With regard to land consolidation, farmers shall retain the customary estate which is in perpetuity and lease it out to the enterprise. The land is being consolidated for management and administration purposes in the running of the scheme. The certificate at block level will have total acreage, contributors and how much land each farmer is contributing. If a farmer opts out, they will regain the same size as contributed though it may not be in same exact location. RPF has taken into consideration impacts that may arise out of component 2 on land tenure and consolidation and subsequent RPs for the secondary canals provide guidance on how identification, relocation will be handled and the pathways with respect to land contribution. Furthermore, Land Reform Implementation Unit (LRIU) and the PMT will draft procedures specifically for SVTP to guide the Community Land Committees (CLCs). The RPF has outlined a land tenure diagnostic, allocation and consolidation strategy to manage potential land related tenure and consolidation risks. Both cash compensation, land for land options, as well as livelihood restoration measures were considered in the SVTP I 2017 RPF and the subsequent RP that was implemented for the main canal. It is envisaged that the same will apply to the updated SVTP II RPF. The RP will include the preparation of a comprehensive livelihood restoration program as well as inclusive consultations to be undertaken that ensure PAPs, particularly vulnerable ones, understand the resettlement options that will be available to them. The RP prepared and implemented for the SVTP I impacted 1,305 PAHs (220 physically relocated) and it is envisaged that a similar number of households will be affected by the SVTP II. The SVTP I main canal managed to circumvent graves and gravesites to avoid social risks associated with the relocation of graves, and SVTP II intends to apply the same principles during the design of the main canal and subsidiary channels. To manage land acquisition related risks and impacts, the SVTP I 2017 RPF will be reviewed and updated to reflect lessons learned from the implementation of the SVTP I RP, alignment to ESS5 and relevance to the context and scope of SVTP II. The RPF will guide the preparation of subsequent RPs for i. the main canal and associated facilities such as the night storage, ii. the secondary canals and irrigation blocks and iii. other infrastructure such as the industrial park. The Process Framework (PF) will also be reviewed and updated in alignment to ESS5 as the project will likely entail



restrictions of access to natural resources in legally designated protected areas including the Lengwe National Park through which the canal will pass. The requirement and timeline to prepare subproject-specific resettlement instruments will be outlined in the Environmental and Social Commitment Plan, which will be drawn and agreed upon with the Borrower and disclosed prior to appraisal. Site-specific instruments will have to be prepared and implemented (i.e., compensation paid) prior to commencement of any civil works.

### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

The 2017 ESIA identified that the natural habitats in the Study area are confined to parks and reserves. Few patches of remnant forests and thickets are still present around cemeteries in the Shire Valley, but these have no potential to shelter any large mammals or known rare or scarce species. The river valley (within which the agricultural development blocks will occur) is largely modified habitat, although during the review and update of the ESIA for SVTP-2, spot checks will be undertaken to confirm if any changes have occurred.

The canal constructed under component 1 will cross some watercourses/dry river valleys and the designs of the crossings will be carefully selected to maintain continuity of habitat.

As described in the 2017 ESIA, under component 3 the layout of new irrigation blocks will avoid areas comprising residual natural habitats (riverine forests, thickets, dambo wetlands, etc.), frequently flooded areas, soils unsuited for irrigation/agriculture, cultural heritage sites, and a 100+ meter non-irrigated buffer zone around Lengwe National Park.

The first 14km of the canal built under SVTP-2 (component 1) will pass through Lengwe National Park. The 2017 ESIA considered Lengwe National Park to be in sub-optimal condition, including the area through which the canal will pass, as it supports only small numbers of a limited range of game species, and is subject to poaching, illegal cattle grazing, and illegal logging. Opportunities to improve the condition of the park have been studied during SVTP-1, and appropriate measures will be incorporated into the design of SVTP-2 to improve conditions at the Park as compensation for the impact. The design of the canal through the park will include wildlife crossings (to minimize fragmentation) and the slope and surface of the canal will be designed in consideration of the intrinsic hazard the canal will present to wildlife. In addition, watering holes for animals will be provided, and tree surveys will be undertaken in advance of construction to record species of trees present (including the high value Mopane) to inform restoration and to enable the National Parks Authority to use the value of the trees for conservation work within the Park. The review and update of the ESIA will develop the recommendations and ensure they are appropriate to meet the requirements of ESS6, and where feasible deliver opportunities for net gain for biodiversity over the long term within the park.

Although the project will not impact directly on Elephant Marsh (a large wetland along the lower Shire River that was designated a Ramsar site in 2017), potential indirect impacts from hydrological changes and possibly the accumulation of agricultural chemicals from run-off will be considered as part of the update of the ESIA. The project will reduce water flows to the Elephant Marsh to a measurable but not highly significant degree: the water abstracted will be up to 50 m<sup>3</sup>/s, but since some of the canal water will simply substitute for irrigation water that is



currently pumped from the River Shire, the maximum net abstraction will be 32 m<sup>3</sup>/s at full development, which is not more than 10 percent of the Shire River's flow during the dry season month of peak irrigation water demand. Under component 4 the SVTP-2 project will continue to support hydrological and biological monitoring of the Elephant Marsh, building on the baseline data obtained through the ongoing Shire River Basin Management Project (SRBMP). Component 4 will also continue to support Elephant Marsh as a Community Conservation Wetland Area under the administration of the Department of National Parks and Wildlife (DNPW), and the work that has begun to establish different use zones and community-based regulation of fishing and other traditional livelihood activities, without requiring any resettlement of current residents away from the Marsh.

Under component 4 the project is expected to continue to support targeted investments to improve the protection and management of the Elephant Marsh, Lengwe National Park (beyond the area of influence of the future irrigation canal), Mwabvi Wildlife Reserve, and Matandwe Forest Reserve. These measures may provide opportunities for a net gain of biodiversity in the valley.

No endangered or critically endangered species of wildlife were recorded in 2017 from any of the areas affected by SVTP-2 in the Shire Valley. This will be reviewed as part of the update of the ESIA for SVTP-2.

The project will not involve the primary production or harvesting of living natural resources and no natural resource commodities will be required during the construction or operation of the project.

As described in the 2017 ESIA, quarry sites that may be suitable for use to provide material for the construction of the canal under component 1 are Kajawo, Thabwa existing quarry, Nzongwe and Ngabu (KRC, 2016). Detailed information will be provided as the Design progresses and potential impacts will be assessed in the updated ESIA and specific measures provided in the ESMP.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

This standard is not relevant as there are no groups that meet the criteria and description of ESS7 in the country

#### **ESS8 Cultural Heritage**

The proposed operation will entail significant civil works including excavations, movement of earth, quarrying etc. that will be associated with the canal and the ancillary infrastructure construction. These types of activities pose the possibility of encountering both known and unknown intangible and tangible cultural heritage. The 2017 ESIA indicated that the Lower Shire Valley boasts a number of sacred cultural sites numbered CK1 to CK45 most of which are pottery sherds and stone tools likely from the Iron Age and a number of which have already been salvaged. The 2017 ESIA determined, based on the cultural map, that the study area had about 10 sites of cultural significance. Relevant stakeholders, including affected communities, interested CSOs and the Department of Antiquities, will be identified and consulted on cultural heritage as part of the revision and update of the ESIA and preparation of the ESMP. An assessment will be undertaken as part of the revision and update of ESIA and an inventory of cultural sites



outlined in the ESMP. The treatment of cultural heritage discovered during project implementation (including archaeological relics, fossils, human graves, shrines, sacred rocks, trees or groves) will follow the Chance Finds Procedures that will be outlined in the revised and updated ESIA and ESMP. The revised and updated ESIA and ESMP will also outline a Cultural Heritage Management Plan (CHMP) and recommend appropriate cultural resources management, consistent with ESS8, the applicable Malawian legislation and cultural traditions, recommend pre-construction training and awareness for contractor personnel, all of which will be included as requirements in civil works bidding documents and contracts as well as elaborated in the subsequent Contractors’ Environmental and Social Management Plans that will be prepared before commencement of construction works. As in the case of SVTP I no graves or graveyards are expected to be affected by the project, as the design of the main canal and subsidiary channels will follow the principle of avoidance to completely circumvent the social and cultural risks associated with the relocation of graves.

**ESS9 Financial Intermediaries**

No financial intermediaries are party to the project.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways** Yes

**OP 7.60 Projects in Disputed Areas** No

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

**A. Is a common approach being considered?** No

**Financing Partners**

A common approach is not proposed.

**B. Proposed Measures, Actions and Timing (Borrower’s commitments)**

**Actions to be completed prior to Bank Board Approval:**

1. Revise and update ESIA: to alignment with the ESF; to reflect the scope of SVTP-2 (as necessary including any development areas to the west of the canal, industrial park and other ancillary features); to incorporate any new technical information and lessons from SVTP-I; to check and update as necessary the baseline conditions; and to reflect any further public and stakeholder comments;
2. Prepare ESMP for SVTP-2 containing details for managing Labour Influx /SEAH prevention and response), Health and Safety, Cultural Heritage, update the existing Gender and Youth Strategy among others;
3. Review and update the PMP in alignment with ESS3 and to include mechanisms for delivering of training and PPE to farmers, and for the safe disposal of hazardous waste (such as chemical containers);

Public Disclosure



4. Revise and update RPF in alignment to ESS5 and containing an updated land tenure diagnostic, allocation and consolidation strategy;
5. Revise and update PF in alignment to ESS5;
6. Prepare a Stakeholder Engagement Plan (SEP) including a robust Communication Strategy/Plan and a Grievance Mechanism;
7. Prepare Labor Management Procedures (LMP);
8. Prepare ESCP

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

1. Maintain a PIU with full staffing and adequate environmental and social capacity;
2. Review and update the ESIA and ESMP when the design is complete;
3. Adopt and implement the ESIA and ESMP and ensure that the updated instruments include assessments of all aspects of the project.
4. Adopt and implement the PMP;
5. Adopt and implement the LMP;
6. Prepare, adopt, and implement RPs in accordance with ESS 5 and consistent with the requirements of the RPF before carrying out construction of canal and the associated activities;
7. Adopt and implement the RP in accordance with ESS5;
8. Incorporate the relevant aspects of E&S documents and/or plans, and the LMP, into the ESHS specifications of the procurement documents with contractors;
9. Adopt and implement the Labour Influx Management/GBV Prevention and Response Plan to manage the risks of Labour Influx and GBV/SEA/SH;
10. Adopt and implement the cultural management heritage to appropriately manage cultural resources, including the relocation of chance finds;
11. Adopt and implement the SEP and Communication Strategy/Plan, including putting in place a project GM;
12. Preparation of all ESHS related operation phase plans for the various project components/subprojects

**C. Timing**

**Tentative target date for preparing the Appraisal Stage ESRS**

15-Dec-2021

**IV. CONTACT POINTS**

**World Bank**

Contact:	Joop Stoutjesdijk	Title:	Lead Water Resources Management Specialist
----------	-------------------	--------	--

Telephone No:	473-3754	Email:	jstoutjesdijk@worldbank.org
---------------	----------	--------	-----------------------------

Contact:	Time Hapana Fatch	Title:	Senior Agriculture Economist
----------	-------------------	--------	------------------------------

Telephone No:	5394+3232	Email:	tfatch@worldbank.org
---------------	-----------	--------	----------------------

Public Disclosure



Contact: Efreem Zephnath Chilima Title: Senior Private Sector Specialist  
Telephone No: 5394+3209 Email: echilima@worldbank.org

**Borrower/Client/Recipient**

Borrower: Ministry of Finance

**Implementing Agency(ies)**

Implementing Agency: Ministry of Agriculture

**V. FOR MORE INFORMATION CONTACT**

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

**VI. APPROVAL**

Task Team Leader(s): Joop Stoutjesdijk, Time Hapana Fatch, Efreem Zephnath Chilima  
Practice Manager (ENR/Social) Iain G. Shuker Recommended on 08-Nov-2021 at 13:02:14 GMT-05:00  
Safeguards Advisor ESSA Peter Leonard (SAESSA) Cleared on 10-Nov-2021 at 02:11:22 GMT-05:00