Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 22-Sep-2021 | Report No: PIDC32274

Public Disclosure Authorized

BASIC INFORMATION

A. Basic Project Data

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

Proposed Development Objective(s)

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.

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	250.00
Total Financing	185.00
of which IBRD/IDA	175.00
Financing Gap	65.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	175.00
IDA Credit	175.00

Non-World Bank Group Financing

Commercial Financing	10.00

Unguaranteed Commercial Financing	10.00

Environmental and Social Risk Classification	Concept Review Decision
High	Track II-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

Over the past decades, Malawi's economy has shown modest growth. Before the COVID-19 pandemic, gross domestic product (GDP) per capita grew at an average of 1.5 percent per year from 1995 to 2018, which was about half the growth rate of comparable peer countries in Sub-Saharan Africa. Incomes are unequally distributed, with the poorest quintile of households accounting for only 7 percent of income compared to 50 percent for the wealthiest quintile. The Coronavirus Disease 2019 (COVID-19) pandemic has negatively affected economic growth, created new fiscal pressures, and increased income inequality. Malawi is home to about 18 million people, with a mean age of 17 years and with 75 percent of Malawians under the age of 35 years. The population is still growing at 2.7 percent per year and is anticipated to double by 2038. Malawi is already one of the most densely populated countries in Africa, but the rapid population growth is one of the defining features of Malawi's development challenge, putting increasing strain on the natural resource base and limited public services.

Almost 70 percent of Malawi's population lives below the poverty line of US$1.90 per day per capita in 2021. Poverty is mainly a rural phenomenon, with the vast majority (95 percent) of poor people in Malawi living in rural areas. Rural poverty increased from 56 to 60 percent between 2004 and 2016, while urban poverty remained broadly constant. Rural poverty is heavily influenced by climatic shocks, mainly floods and droughts, and the degradation of the natural environment. Poverty is most acute in Malawi's Southern Region, with the Shire Valley containing the highest incidence of poverty in the country, where communities are frequently affected by both floods and droughts.

Around 85 percent of Malawi's population is estimated to live in rural areas and mostly rely on rainfed agriculture for employment, the viability of which is threatened by climate change. Increasingly erratic rainfall, watershed degradation, and limited storage infrastructure reduce the availability and quality of water resources, increase the country's vulnerability to droughts and floods, and hamper energy security and agricultural productivity. Overcoming the economic impacts of weather shocks on the agriculture-based economy will be important. A more climate-smart and diversified agriculture sector is essential to growth and poverty reduction. A challenge will be to ensure that any transformation is done efficiently and in a sustainable manner to avoid further depletion of the country's resources, including forests and wetlands.

Sectoral and Institutional Context

Agriculture is the main source of Malawi's economic activity, representing about 30 percent of GDP, 85 percent of employment, and over 80 percent of total export earnings. The agricultural sector has experienced intermittent

periods of strong growth and decline over the last decades. Total cultivated land in Malawi is approximately 5.3 million hectares (ha), the vast majority (over 95 percent) of which is rain fed. The agricultural sector is dualistic, comprising the smallholder subsector (2.7 million households) and the (private) estate subsector (approximately 30,000 farms). Subsistence farming is practiced on approximately 4.2 million hectares, cultivating small and fragmented pieces of land held under customary land tenure, from which 75 percent of the agricultural output of the country, predominantly maize, is produced. Over 70 percent of all the farmers cultivate less than one hectare and a significant number struggle to produce enough food to meet even their own basic consumption requirements. As a result of climate change rainy seasons will grow shorter, potentially leading to more frequent failures in maize cultivation, which in turn has significant implications for future food security and suggests that current rainfed agricultural systems may not be sustainable in the long run.

Agricultural expansion has reached its limits as more and more fragile catchments are cultivated, often on hillsides, resulting in high erosion, rapid loss of soil fertility, and siltation of water courses. Climate Change is exacerbating this situation. In the plains, agricultural intensification has taken place primarily along riverbanks and in wetlands. This has devastated natural habitats, exacerbated downstream flooding, and increased the exposure to weather shocks. It is estimated that average annual asset losses due to floods amount to US$46 million. Past climatic shocks, such as cyclone Idai, increased the depth of poverty in the two southern most districts of Chikwawa and Nsanje. Chikwawa and Nsanje Districts are also very vulnerable to droughts. Mostly drought tolerant crops, such as millet and sorghum, are grown, but even these crops often fail. Many people in the two districts rely every year on food handouts. Future climate change scenarios indicate increasing climate variability, higher temperatures, longer dry periods, and more erratic and intense rainfall events. Increased flood events will exacerbate soil erosion and land degradation. Floods and droughts will negatively impact food production and cause food insecurity and increased poverty, which in turn adds pressure on the natural resources base. The current and expected shocks coupled with limited irrigation, weak land tenure security, limited access to farm inputs and finance, and weak linkages to markets contribute to low productivity and high vulnerability and limit agricultural intensification.

Scaling up access to irrigation services for enhanced agricultural production, crop diversification, and resilience to climate change is a core government priority, with the 2015 Irrigation Master Plan prioritizing the Lower Shire Valley and areas adjacent to Lake Malawi for agricultural intensification and densification through irrigation. In 2015, the Government adopted an Irrigation Master Plan, which provides priorities for different business lines in irrigated agriculture. Agricultural intensification and diversification through irrigation development is an integral part of this strategy as irrigation is known to support food security, rural income generation, and rural poverty reduction. To date, less than 35 percent of the 410,000 ha potential irrigable area has been developed for irrigation, about equally divided between public schemes for smallholders and private estates. Most of the potentially irrigable land lies in the plains along the shores of Lake Malawi and the Lower Shire Valley as these are the areas with particularly fertile soils and adequate water resources for the development of irrigated agriculture.

The agronomic potential in the Shire Valley is enormous, but government has struggled for a long time to unlock this potential. The Shire Valley has abundant all year-round water resources from the Shire River and generally fertile soils. There is also a young and abundant workforce and good proximity to internal and regional markets, with the project area about 1-1.5 hour travel time to Blantyre and with railroad connections to Nacala and Beira). There are positive experiences with smallholder outgrowers, in particular for sugarcane cultivation on consolidated blocks of land, that could be replicated for other crops. Despite these promises as an attractive development area, the challenge for the government until recently has been to unlock this development potential of this area. Development at scale would be expensive and technically difficult, requiring substantial capital investments, while development should also consider land tenure issues, access to climate smart technologies and markets, and he unique biodiversity of the area. Intensive

and commercial agriculture would require land consolidation to deliver benefits and would have to utilize modern irrigation and agriculture technologies. Finally, irrigation development should carefully consider the unique environment and biodiversity in the Valley, including national parks and game reserves, forest reserves, and the Elephant Marsh (Ramsar site).

Malawi has established the regulatory environment for customary land registration and implemented a coherent approach to piloting implementation, the results of which now need to be consolidated and scaled. The Malawian Parliament passed ten new land-related acts in 2016 that fundamentally modify the status and registration of land rights in the country. In particular, the new framework introduces a decentralized land administration and provides for the formalization and registration of customary rights. The Customary Land Act (CLA) introduces "Customary Estates" as a formal land tenure document available to individuals, groups, and corporate entities, and is thus providing a legal foundation for collective customary estates, required for land consolidation by smallholders to establish agro-enterprises. The Acts were only signed in 2018 due to opposition especially from customary authorities, and a review process was therefore ordered by the new government, with parliamentary discussions expected in 2022. Regulations for the CLA are in place and a Land Reform Implementation Unit (LRIU) was established in the Ministry of Lands (MoL) to pilot the gender sensitive implementation of the law and prepare for upscaling. The LRIU has completed pilots in nine sites (typically 1,000-2,000 parcels each) and accompanied the customary land registration process in the SVTP project area (23,300 parcels in 2020).

The way tenure systems for land are defined and governed and how tenure security is perceived guides smallholders' decisions about investments in agriculture, resilience, and diversification, while it also affects management of public land, including forests and grazing areas. Land is a scarce resource in Malawi, and land values will increase following investments in irrigation infrastructure, and the expected spin off of economic growth like more roads, industrial parks, urban development, and in-migration. Competition over land can lead to land speculation, dispute, grievances, increased inequality, and even displacement. Recording and registration of smallholders (customary) rights before investments take off will help to ensure that they will also be the beneficiaries of the irrigation scheme. Before land registration can start, land use planning is required at the district level and community level. Comprehensive land use planning, combined with implementation and enforcement capacity, protects the investments in irrigation infrastructure, facilitates effective land use and prevents sprawl, enables infrastructure and agribusiness development, contributes to enhancing resilience of terrestrial and aquatic ecosystems, and reduces the risk of environmental degradation and pollution. Participatory local land use planning will facilitate sustainable management of the village commons (forest, grazing areas, dryland agricultural reserves).

Gender is a core element in the CLA and the land registration approach. The CLA includes minimum quota for participation of women in land institutions such as the Customary Land Committees (CLC). It also ensures that women's rights to land are recorded and encourages joint titling. Recruitment of staff, communication and training programs are gender sensitive. An important characteristic of Malawi's land tenure system is the co-existence of matrilineal and patrilineal inheritance systems. Despite this, there are distinct gender inequalities in agricultural work. While females are found to be most active in agricultural work, males typically continue to oversee all financial undertakings for both farm produce and livestock. While irrigation has the potential to benefit women through improving access to disposable incomes and services such as water provision, it can also impact them adversely by increasing their workload in the agricultural sector. Furthermore, as financial services often remain unattainable to women and youth, they may not have access to the same opportunities as men arising from irrigation operations.

Access to irrigation services alone will not improve productivity in the Shire Valley without simultaneously enhancing access to improved agricultural practices, including mechanization, that create the necessary incentives for farmers to

shift to commercial agriculture. To achieve that, several sector issues and bottlenecks have to be addressed, including vulnerability to poor management of land, water, and soils; low access to finance and quality farm inputs; limited farm organization; and weak linkages to markets. Increasing productivity calls for diversified systems that are more resilient and, therefore, can avert and recover from more frequent extreme weather events. Malawi's vulnerability to climate shocks has increased in recent years. The country has suffered from weather shocks at an increasing frequency, including more frequent droughts. Therefore, it is important to support climate adaptation by building resilience against adverse climatic conditions among the farming community through irrigation and climate smart agriculture, including sustainable land management practices that enhance carbon and moisture retention in soils, zero tilling, where feasible, and integrated pest management practices.

Agricultural commercialization has to benefit from improved access to local, national, and regional markets. Improving access to markets can incentivize farmers and increase agricultural productivity. Agricultural rural markets in the Shire Valley are under-developed and there is inadequate infrastructure for efficient agricultural marketing that have inhibited farmers' efficiency and competitiveness in both local and international markets. Value addition in the agricultural sector is also constrained by a weak business and investment climate. Yet, there are opportunities to address these issues as a well-functioning irrigation scheme should attract agri-businesses and private finance and there are existing transport linkages with Blantyre, neighboring countries, and ports in Mozambique.

The Lower Shire Valley contains some of the most important natural resources in Malawi which provide global public goods, such as biodiversity, climate stabilization, and nationally significant ecosystem services. The natural resources in the area play a critical role in contributing to the resilience of local communities, by providing goods and ecosystem services to the local population, such as freshwater, food, construction material, medical material, and fuel sources. Despite their socioeconomic and environmental value, the protected areas and forest reserves face several challenges to their long-term integrity and sustainability. There is a need to strengthen existing management capacity and explore alternative management arrangements, including with private sector and communities. Forests are degraded in the region primarily because of small-scale agriculture, biomass energy, unsustainable forest management, land tenure insecurity, and demographic pressures. Ensuring the sustainability and resilience of the natural resource base on which agriculture and forestry depend, particularly soil and water, is critical for resilient development.

Relationship to CPF

The proposed project is planned for FY22 in the Malawi Country Partnership Framework for the period FY21-25 (CPF, Report No. 154505-MW, dated April 2, 2021). The CPF focuses on bolstering foundations for growth and accountability; promoting private sector-led jobs and livelihoods; and strengthening human capital development. Considering that agricultural transformation is a central pillar of Malawi 2063 (MW2063), greater crop diversification and commercialization is a key focus under the CPF and will contribute to growth and promote jobs and livelihoods. The proposed SVTP-2 is in particular aligned with CPF Focus Area 2 – Promoting Private Sector-led Jobs and Livelihoods that targets key short- and long-term strategies for boosting job creation and fostering sustainable livelihoods where the proposed project will be developing irrigation systems to support commercial agriculture and agribusiness and improving regional trade, while enhancing resilience to droughts and floods. The strengthening of commercial agriculture will in turn be a main driver for the job creation agenda. The CPF stresses that climate shock risks remain substantial and highlights the need for the CPF to further enhance WBG support to climate adaptation, prevention, and preparedness.

MW2063 is the current government's vision and strategic path for an inclusively wealthy and self-reliant nation. It is anchored on three key pillars, namely: Agriculture Productivity and Commercialization; Industrialization; and

Urbanization. The attainment of these three pillars will be catalyzed by seven enablers, namely: Mindset Change; Effective Governance System; Public Sector Performance; Private Sector Dynamism; Human Capital Development; Economic Infrastructure; and Environmental Sustainability. MW2063's vision for Agricultural transformation is a shift from low productivity and subsistence-oriented agriculture to a highly productive and commercialized agriculture system with manufacturing linkages through investments in value addition and agro-processing that will provide employment opportunities for the country's youthful population. Recent assessments show that about 22 percent of the nation's youth aged 15-24 are neither in employment, education or training, and approximately 27 percent of those with a job are underemployed. MW2063 mentions that investment in sustainable irrigation systems and technologies as well as approaches to averting adverse climatic variability will be prioritized. New technologies and expertise will be required to ensure sustained and resilient crop diversification and productivity. MW2063 also recognizes that improving agricultural productivity and commercialization will require the strategic transformation of land tenure systems, including conducive laws and regulations governing land acquisition, ownership, and utilization, as well as a shift to climate smart agriculture technologies.

C. Proposed Development Objective(s)

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. The PDO will be refined during project prparation.

Key Results (From PCN)

The main expected project results are (specific climate, gender, and citizen engagement (intermediate) indicators will be developed for the PAD):

- Area provided with gravity-fed bulk irrigation water (ha);
- Number of agricultural blocks established with formal land tenure (number);
- Area brought under commercial crops (ha);
- Conservation areas under improved management, as measured by the Management Effectiveness Tracking Tool (METT); and
- Direct project beneficiaries from agriculture and natural resources management initiatives (number, disaggregated by gender).

D. Concept Description

SVTP is a 14-year program supported by a Series of Projects (SoP) with three sequential but partially overlapping project. The program is structured around four coordinated pillars: (i) providing reliable, professionally managed, and sustainably financed irrigation service to a number of irrigators in a phased construction of an irrigation and drainage scheme; (ii) supporting farmer organizations within a comprehensive land use plan, and supporting land tenure strengthening and consolidation; (iii) establishing and investing in smallholder owned commercial farm enterprises (SOCFE) transitioning into commercial agriculture from subsistence farming and integrating them into commercial value chains; and (iv) natural resources management in and around the project area. These four pillars are expected to increase the beneficiaries' capacity to respond to ever-increasing drought and floods. The program aims at providing irrigation to over 43,000 ha through the phased construction of a new gravity-fed irrigation scheme that will supply over 27,600 ha of agricultural land presently under rainfed cultivation, creating agricultural development opportunities in the fertile valley, as well as approximately 15,700 ha of existing irrigation areas that currently use electric pumps to

abstract water from the Shire River. In case one or more existing irrigation schemes opts out from drawing water from SVTP's gravity canal, additional new lands can be developed, mostly in the Nsanja District.

The proposed SVTP-2 will support the Program with an IDA credit of around US$175 million. Discussions on co-financing have started with several Development Partners, including the African Development Bank and GEF, both of which co-financed SVTP-1. The project requires accelerated processing leading to Board approval around April 2022, with implementation to take place from around September 1, 2022 to June 30, 2028. The proposed focus of SVTP-2 will continue to be on infrastructure development, land tenure, and natural resources management, but development of agricultural modernization and commercialization will play an increasingly important role, including private sector and value chain support.

Component 1 – Irrigation Infrastructure Development and Service Provision

SVTP-2 will finance the construction of the remaining 70 km of main canal, starting at the northern boundary of Lengwe National Park to the Bangula area in Nsanje District, and a number of secondary canals. This section of the main canal will eventually supply water to about 21,000 ha (including some 17,500 ha of new irrigation) in the Phase II project area, which comprises the agricultural blocks south of Lengwe National Park. The proposed project will also finance the construction of a number of secondary canals in the Phase II project area, the number depending on the available funds for development of agriculture blocks and secondary canals, as well as drainage and flood protection works and service and access roads. SVTP-2 will finance required consulting services for remaining detailed design services, e.g. secondary canals in the Phase 2 project area, and construction supervision and quality assurance. The component will also finance the implementation of special safeguards measures as described in the Environmental and Social Impacts Assessment (ESIA) and Environmental and Social Management Plan (ESMP), especially related to canal construction through Lengwe National Park. Adequate office accommodation for DoI and the Special Purpose Vehicle that will own the irrigation and drainage infrastructure will be constructed in Lilongwe.

Component 2 – Land Tenure and Consolidation

SVTP-2 will continue with similar activities as implemented under SVTP-1 in the Phase II project area. MoL and the Project Management Team (PMT) will support the setting up of local governance bodies at Traditional Authority (TA) levels, including the Customary Land Committee, Customary Land Tribunals, and the Nsanje District Land Tribunal. SVTP-2, with the support of MoL and consultants, will support the development of the Nsanje District Physical Development Plan and the development of land use plans. It will also finance the provision of equipment and capacity strengthening of the district level institutions for land delimitation and administration and maintaining the district registry. The project will continue to support the process of land consolidation and registration of customary estates through systematic demarcation and adjudication of all customary lands in the Phase II project area. Greater security of tenure may encourage investment in carbon capture, e.g. through better soil management and planting of woodlots.

Component 3 – Agriculture Development and Commercialization

SVTP 2 will, through MoA and PMT, continue adopting the current farmer driven approach around the SOCFE and the productive alliance (PA) models. The PA will promote horizontal alliance among smallholders to consolidate their land into customary estates, coordinate production, and sell their produce collectively as cooperatives. Besides core agricultural production, blocks could also develop fishponds, pasture, vegetable gardens, and sustainable woodlots for charcoal production. SVTP-2 will finance service providers (SPs) with good knowledge of the approaches being adopted under the Program to support SOCFEs with the development of agricultural blocks. SPs will link with the national

agricultural research and extension systems to support climate smart agriculture (CSA) and climate adaptation. The SPs will be crucial to support the SOCFEs with the identification of a pathway of their choice, determination of the choice of value chains, to a large extent based on the identification of off-takers, and sensitization of the SOCFEs on matching grant requirements (see next para.). In addition, SPs will have to advice the SOCFEs on the investment cost implications of different water application methods; the O&M cost implications of different water application methods; and the crops that be grown under different water application methods, and the degree of flexibility or otherwise for crop choice with different methods. SPs will be recruited at the start of SVTP-2 implementation. In addition to the remaining blocks in the Phase I project area, SVTP-2 may finance the development of several blocks in the Phase II project area, with the number mostly depending on the availability of funds.

An estimated 80 percent of the available funds under the component will finance block development investments in irrigation and drainage, land leveling, and commercial farm development. This will include irrigation systems (including surface, sprinkler, center pivot, drip, or microjet as per informed decision by the SOCFEs), farm equipment (fixed and moveable), initial production and management support at SOCFE level, and basic infrastructure. In continuation from SVTP-1, matching grants will be made available to lower the investment costs to be paid by SOCFEs, while private finance leveraged in value chain development is expected to be available as well. As the number of agricultural blocks to be developed is expected to increase considerably under SVTP-2, the component will put a lot of emphasis on ensuring that any matching grant is made available in a timely manner.

Component 4 – Strengthening Landscape and Natural Resources Management in the Lower Shire Valley

Despite the investments made and to be made under SVTP-1, there remains an infrastructure deficit in the protected areas and forest reserves to ensure effective surveillance, monitoring, and enforcement. Priority infrastructure investments such as park trails/roads, ranger camps, fences, and water holes, will be accompanied by critical community livelihoods interventions in the areas around the protected areas. SVTP-2 will support strengthening of the management of the Elephant Marsh that provides a unique habitat sanctuary to birds and flora through the implementation of its Community Conservation Area Management Plan. Forests provide a range of environmental services, such as greenhouse gas (GHG) mitigation, micro-climate regulation (including increased localized rainfall water retention), and improved soil and water conservation, which in turn regulates streams and replenishes aquifers, buffering against floods and droughts, and supporting greater biodiversity. The project will support a shift towards ensuring sustainable financing of the management of the remaining forest reserves, including possibly through carbon credits.

As the Lower Shire transforms and the generation of waste increases, there is a necessity to prepare the services for the communities and private enterprises to manage pollution and comply with environmental regulations. Studies will be undertaken under the component to identify mechanisms for managing the increases and changes in the types of waste that are likely to arise during operation as the valley transforms. The Pest Management Plan that will be prepared for each agricultural block will include mechanisms for delivering of training and personal protective equipment (PPE), and for the safe disposal of hazardous waste (such as chemical containers).

Component 5 – Project Management, Coordination, and Communication

SVTP-2 will continue to provide funding for the Project Management Team. This will allow the PMT to provide day-to-day management and coordination, monitoring and evaluation, communication, and management of safeguard related issues, including the grievance redress mechanism. The PMT is fully staffed with qualified and competent specialists. It also has an external Gender Based Violence (GBV) service provider.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The potential environmental and social risks and impacts for SVTP II are expected to be in the same broad areas as those identified as part of the ESIA undertaken for the SVTP program as part of Phase I. This includes in relation to labour and working conditions, health and safety of community and workers during construction and operation, land titling and acquisition, biodiversity and nature conservation (including in national parks and Ramsar site), chance finds and pollution prevention (including from the use of agricultural chemicals and pesticides). The ESIA prepared under SVTP I will be reviewed and updated to reflect lessons learned from the implementation of the SVTP program to date, and to align with the ESF/ESSs.

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APPROVAL

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