Report Number: ICRR0024676

1. Project Data

Project ID	Project Name
P158805	Shire Valley Transformation Program - 1
Country	**Practice Area(Lead)**
Malawi	Water

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-61470,IDA-Q9550	31-Dec-2023	159,838,177.09
Bank Approval Date	**Closing Date (Actual)**	
18-Oct-2017	31-Dec-2024	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	160,000,000.00	0.00
Revised Commitment	160,000,000.00	0.00
Actual	154,304,277.23	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
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Project ID	Project Name
P163582	Lower Shire Valley Landscape Project (P163582)
Country	**Practice Area(Lead)**
Malawi	Environment, Natural Resources & the Blue Economy

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
		5533899.86

Bank Approval Date	Closing Date (Actual)	
18-Oct-2017		
	IBRD/IDA (USD)	**Grants (USD)**
Original Commitment	0.00	5,587,156.00
Revised Commitment	0.00	5,587,156.00
Actual	0.00	5,533,899.86

2. Project Objectives and Components

a. Objectives

The Project Development Objectives, as presented in the PAD (p.1), were to: (i) provide access to reliable gravity-fed irrigation and drainage services, and (ii) secure land tenure for smallholder farmers; and (iii) strengthen management of wetlands and protected areas in the Shire Valley of the Recipient. The Financing Agreement for the loan (p. 5) had the same objectives. This review has assessed the PDO achievement in terms of the following three objectives:

i. provide access to reliable gravity-fed irrigation and drainage services;
ii. provide secure land tenure for smallholder farmers; and
iii. strengthen the management of wetlands and protected areas in the Shire Valley of the Recipient

It should be noted that this project is phase I of a Series of Projects (SoP), which encompasses a 14-year program. The PDO for the *program* is to increase agricultural productivity and commercialization for targeted households in the Shire Valley, and to improve the sustainable management and utilization of natural resources. The PDO for the Phase I project is notably silent on agricultural productivity and commercialization.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

No

c. Will a split evaluation be undertaken?

Yes

d. Components

Component 1: Irrigation Service Provision (US$135.8 million at appraisal, and US$182.4 million actual). Activities financed under this component included: (i) designs and construction of bulk irrigation (such as the

intake, canals, regulators, siphons, and emergency spillways) and drainage infrastructure; (ii) environmental and social safeguards plans and instruments; (iii) capacity building and training for government staff and the Water User Federation, as well as providing technical and institutional and legal support for structuring water management contracts and forming Water User Associations (WUAs).

Component 2: Land Tenure and Natural Resources Management Support (US$27.29 million at appraisal, and US$19.68 million actual). Activities financed under this component included: (i) piloting of the new land legal framework to secure land tenure and organize farmers for commercial production; (ii) technical assistance to set up local governance bodies, developing local regulations, supporting the process of land consolidation, registering customary estates, forming farmers' cooperatives and WUAs, and financing all relevant safeguards measures including compensation for resettlement; (iii) community-level natural resource management in areas adjacent irrigation areas and in wildlife corridors; (iv) establishment of the Elephant Marsh Sustainable Use Wetland Conservation Area.

Component 3: Agriculture Development and Commercialization (US$56.60 million at appraisal, and US$3.2 million actual). Activities financed under this component included: (i) on-farm investments in irrigation and drainage, land leveling, commercial farm development, and providing farm equipment (fixed and moveable); (ii) technical assistance on production and management support at the Smallholder Organized Commercial Farm Estates (SOCFE) level, using a demand-based matching grant mechanism for farm assets and management support; (iii) technical assistance and quality control for forming productive alliances and setting up SOCFE management, as well as financing preparatory studies such as market diagnostics and applied research.

Component 4: Project Management and Coordination (US$8.9 million at appraisal, and US$8.9 million actual). Activities financed under this component included: (i) project management, coordination, and monitoring and evaluation (M&E), communications strategy, managing the Grievance Redress Mechanism (GRM), and financing goods, works, services, and incremental operating costs for the Project Management Team (PMT). It will fund a comprehensive M&E system, program assessments, professional and support staff (including safeguards specialists), short-term expertise, and annual external audits.

Component 5: PPA repayment (US$6 million at appraisal, and US$6 million actual). Activities financed under this component include repayment of the Project Preparation Advance (PPA) that the Government obtained to fund the initial project preparation activities and studies.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Cost: The estimated total project cost at appraisal was US$234.59 million. The actual total cost was US$220.19 million. (ICR, p. 38)

Financing: At appraisal, the financing was estimated at US$160 million from IDA, which included a US$6 million project preparation advance, US$50 million financing from the African Development Bank (AfDB), US$5.59 million from the Global Environment Facility (GEF),US$11.80 million from Foreign Private Commercial Sources, and US$7.2 million from the Borrower. There is a discrepancy in total disbursements in the ICR between the data sheet on page ii and the disbursement figures in Tables 4.2 and 4.6 (pg. 34 and 36). The ICRR uses the amounts reported in Tables 4.2 and 4.6 of the ICR. The amount disbursed at

closing was US$160 million from IDA, US$50 million from AfDB, and US$5.59 million from GEF. No private sector financing materialized.

Borrower Contribution: The Borrower provided a total of US$4.59 million in counterpart financing.

Dates: The Project was approved on October 17, 2017, and became effective on March 21, 2018. The project closing date at appraisal was December 31, 2023, but the actual closing date was extended by 12 months until December 31, 2024, for a total implementation period of seven years. The project had one restructuring, and the MTR was conducted from September 1 to October 2, 2021. The restructuring included the following:

- In December 2023, a level 2 restructuring extended the project closing date by 12 months, reduced the scope of activities, and reduced the targets of PDO indicators.

3. Relevance of Objectives

Rationale

Malawi is a low-income country in southeastern Africa with a population of 21 million (as of 2024) and with over 80 percent of the population living in rural areas and the majority engaged in low-productivity, rain-fed subsistence agriculture. Underinvestment in irrigation has resulted in only a quarter of the potential land area being irrigated. Moreover, rising temperatures, increasingly frequent heavy rains, and increased drought conditions are projected to decrease the yield of rainfed crops, further degrade soil quality, shift season timings, and destroy agricultural infrastructure. Floods often damage water infrastructure and contaminate ground and surface water sources. (Country Partnership Framework, CPF FY21-FY25)

At project appraisal, the project objectives were directly aligned with the World Bank's Country Assistance Strategy (CAS) (FY13-16), which was extended by one year. The CAS Outcome 1.3 was increased productivity and commercialization of agriculture and sustainable management of water resources. In addition, the CAS gave emphasis to the Shire Valley region. The Systematic Country Diagnostic (SCD) of 2018 identified various priorities such as increasing agricultural productivity, diversifying the economy and creating jobs, and building resilience against shocks and enhancing environmental sustainability. (CPF, p. 12) While the PDOs were aligned with the Country Partnership Framework (CPF) FY 21-25 at close, the CPF's priorities were more expansive than the CAS. The project objectives were most closely aligned with the CPF's Focus Area 2: Promoting private sector-led jobs and livelihoods, and specifically Objective 2.1: Supporting micro, small, and medium enterprises (MSME) access to finance and services and expanding markets during COVID 19 and beyond. PDO 1 is linked to Objective 2.1's supplemental indicator of area provided with reliable new or improved gravity-fed irrigation and drainage services under SVTP (hectares). The PDOs are aligned with the government's vision document, "Malawi 2063" (MW2063), which has three pillars, one of which is commercial agriculture.

The project is the first of a series of projects, referred to as the program, that constitutes a 14-year vision to support the transformation of the agriculture sector. This project and the SoP were informed by previous operations supported by the World Bank such as the Agricultural Sector Wide Approach Support Project (ASWAp-SP, P105256); the Irrigation, Rural Livelihoods and Agricultural Development Project (IRLADP, P084148); and the Community-Based Rural Land Development Project (P075247). The PDOs were a mix

of extension of infrastructure and capacity development, but the level of ambition and sophistication of the project design did not match the local capability. Overall, the relevance of PDOs rating is Substantial.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective
To provide access to reliable gravity-fed irrigation and drainage services in the Shire Valley.

Rationale
The theory of change (ToC) in the Implementation Completion and Results Report (ICR, p. 3) reflects the *program and the project* and identified that the outcome of interest for PDO 1 was to provide access to reliable gravity-fed irrigation and drainage services in the Shire Valley.

The inputs identified were adequate to reach the outcome. These included financing of: (i) designs of bulk irrigation (such as the intake, canals, regulators, siphons, and emergency spillways) and drainage infrastructure; (ii) design of secondary canals and lines; (iii) demand-based matching grant mechanism for investments in on-farm assets and management support; (iv) capacity building and training for government staff, as well as providing technical and institutional and legal support for structuring water management and water purchase agreements contracts. (PAD, p. 81-82)

The expected outputs were: (i) construction of bulk irrigation (such as the intake, canals, regulators, siphons, and emergency spillways) and drainage infrastructure and second canals; (ii) matching grants delivered and on farm investments made; (iii) capacity building and training for government staff delivered, technical assistance on institutional and legal support delivered, and management contracts for bulk water operation and maintenance, and water purchase agreements structured.

These outputs were expected to lead to outcomes such as: professionally managed operation and maintenance for bulk water and infrastructure delivering irrigation and drainage services.

The results of these outcomes were in turn expected to lead to the PDO outcome of providing access to reliable gravity-fed irrigation and drainage services in the Shire Valley, contributing to higher-level outcomes of enhanced and sustainable agriculture productivity and increased resilience to climate change.

The ToC's activities, outputs, and outcomes provide a logical causal chain that was sufficient to reach the PDO outcome target. A shortcoming of the ToC is that it did not include any explicit assumptions; however, the ICR makes mention in the economic analysis section that Smallholder Owned Commercial Farm Enterprises (SOCFEs), farmers, and agribusinesses will contribute to irrigation investments at the farm level.

OUTPUTS:

The ICR reported the following additional outputs that did not have targets and were not included in the results framework but were important to the ToC and would contribute to the PDO outcome. The project supported the following at project closing:

- 87 percent of 52 km of the main irrigation canal is completed. The main irrigation canal is a key component of the expansion of gravity-fed irrigation systems in the Shire Valley. Water offtakes that divert water from the main canal along the first 32.8 km of the canal are halfway done.
- Construction of secondary pipelines is at 20 percent complete.
- Drinking water supply treatment plant in Chikwawa district is 65 percent complete. The project supported the construction of water treatment plan for drinking water purposes as part of multipurpose schemes. This output does not directly contribute to the PDO, but it was planned for at appraisal.
- The project supported the establishment of the SPV (Shire Valley Holdings Limited) to own the irrigation assets

The output level indicators for this objective were as follows:

- SVIP Management, Operation and Maintenance (MOM) financial and institutional framework developed and in operation (Original target was 'yes') (**partially achieved**) (ICR, p. 17). This indicator is comprised of four sub-indicators:

- Setting irrigation service fees (Original target was Yes) (**achieved**). The project supported the development of 13 water purchase agreements for water users. These agreements will be signed between the Shire Valley Holdings Limited Company and the water users, which will include SOCFEs, a private company, and the drinking water treatment plant. These agreements detail the service fees for bulk water.
- Performance-based contract management structure partially established (Original target was Yes) (**not achieved**). A public-private-partnership (PPP) contract with the private operator has been developed, and negotiations with the top bidder are expected in October 2025. (Interview with Task Team, October 21, 2025)
- 0 Water Purchased Agreements signed (Original target was 10) (**not achieved**). The water purchase agreements have been developed but have not yet been signed.
- Water Users Federation established (Original target was Yes) (**achieved**). The government changed its position on setting up a Water User Federation and established the Shire Valley Holdings Limited Company to manage bulk water infrastructure and establish water purchase agreements with water users.

OUTCOMES:

The outcome level indicators for this objective were as follows:

- 0 hectares provided with *improved* irrigation or drainage services (ha) (Original target was 10,500 Ha) (**not achieved**). The bulk infrastructure was not completed by project close; therefore, *improved* irrigation and drainage systems were not delivered.

- 0 hectares provided with *new* irrigation or drainage services (Original target was 5,000 Ha) (**not achieved**). The bulk infrastructure was not completed by project close; therefore, *new* irrigation and drainage systems were not delivered.
- 27,733 direct beneficiaries (Original target was 95,000 people) (**not achieved**). The total of 27,733 people corresponds to the number of farmers with secured land tenure within the irrigation block areas.

The indicators to measure PDO 1 and the ToC had shortcomings. The project did not track any indicators on the construction of irrigation and drainage infrastructure that would lead to the outcome indicators of area provided with new/improved irrigation or drainage services. The project was unable to complete the bulk water infrastructure before the project closed, and thus was not able to deliver the expected irrigation and drainage services under phase I of the project. These works are being financed and finalized under phase II of the program and are likely to be completed in the future. The project partially achieved the output indicator and did not achieve the outcome indicators, but is likely to do so, resulting in a **Modest** rating.

Rating
Modest

OBJECTIVE 1 REVISION 1
Revised Objective
To provide access to reliable gravity-fed irrigation and drainage services in the Shire Valley.

Revised Rationale
The ToC largely remained the same with some activities reduced in scope during the restructuring. Component 1 scaled back the ambition of the area of *improved* irrigation and drainage from 10,500 Ha to 1,700 Ha and reduced the area of *new* irrigation and drainage from 5,000 Ha to zero. Various reasons contributed to the scale back, including Cyclone Ana that occurred in 2022. The irrigation canal intake was partially constructed at the time and needed to be reconstructed after the cyclone. Approximately US$40 million from the project was reallocated to emergency repairs/reconstruction, including construction of a cement-soil cofferdam, restoration of canal sections, and development of a temporary intake. In addition, the main irrigation canal needed to be rerouted due to poor engineering design, which also contributed to delays. Moreover, the local currency suffered foreign exchange rate losses that resulted in less available funds for implementation. The uncompleted works are being completed by the follow-on Shire Valley Transformation Program – Phase II, which is under implementation.

OUTPUTS:

The additional outputs that did not have targets and were not included in the results framework but were important to the ToC are the same as reported under the original objective. The output indicators that are in the results framework are the same as those reported under the original objective.

OUTCOMES:

The outcome level indicators for this objective were as follows:

- 0 hectares provided with *improved* irrigation or drainage services (ha) (Revised target was 1,700 Ha) (**not achieved**). The bulk infrastructure was not completed by project close; therefore, *improved* irrigation and drainage systems were not delivered.
- 0 hectares provided with *new* irrigation or drainage services (Revised target was 0 Ha) This indicator was effectively dropped since the target was reduced to zero.

The indicators to measure PDO 1 and the ToC had shortcomings. The project did not track any indicators on the construction of irrigation and drainage infrastructure that would lead to the outcome indicators of area provided with new/improved irrigation or drainage services. The project was unable to complete the bulk water infrastructure before the project closed, thus not able to deliver the expected irrigation and drainage services under phase I of the project. These works are being financed and finalized under phase II of the program and are likely to be completed in the future. The project partially achieved the output indicator and did not achieve the outcome indicators, but is likely to do so. The rating remains **Modest**.

Revised Rating
Modest

OBJECTIVE 2
Objective
To provide secure land tenure for smallholder farmers in the Shire Valley.

Rationale
The ToC in the ICR (p. 3) reflects the *program and the project* and identifies that the outcome of interest for PDO 2 was to secure land tenure for smallholder farmers in the Shire Valley. The ToC explicitly details inputs, outputs, and outcomes for land tenure, which are associated with Component 2 of the project. The ToC for the *program* also articulates a causal chain for financial and economic sustainability, which is linked to Component 3 activities related to agricultural commercial development. A minor shortcoming of the ICR and the project is that it mixes Component 2 and 3 activities, which are sufficiently distinct, and puts them under PDO 2. The inclusion of Component 3 activities in the project reflects the ambition of the *program* without specifying a separate PDO for commercial development. The ICRR maintains the indicators related to commercial development under PDO 2, but identifies this as a minor weakness in measuring the efficacy of PDO 2.

The inputs identified were generally adequate to reach the outcome. These included financing of *land tenure activities*: (i) piloting of the new land legal framework and district registry to secure land tenure and organize farmers for commercial production; (ii) intensive consultative processes to engage landowners, (iii) technical assistance to set up local governance bodies, developing local regulations, supporting the process of land consolidation, registering customary estates, forming farmers' cooperatives – Smallholder Holder Owned Commercial Farm Enterprise (SOCFE), and financing all relevant safeguards measures including compensation for resettlement. (PAD, p. 82-83).

The expected outputs were: (i) consultative processes conducted, (ii) consultative bodies established, (iii) demarcation of land parcels completed, and titles and deeds issued using new legal instruments and customary practices, (iv) district registries of land titles developed, (v) land use plans developed, and (vi)

SOCFEs established. Bullet (vi) is more related to commercial development than explicitly securing land rights.

These outputs were expected to lead to outcomes such as: a legitimate and transparent process that secures equitable land tenure for smallholder farmers.

The result of these outcomes was in turn, expected to lead to the PDO outcome of access to secure and equitable land tenure of smallholder farmers in Shire Valley, contributing to higher levels of commercial development, enabling increased agricultural production.

The ToC's activities, outputs, and outcomes generally provide a logical causal chain that was sufficient to reach the PDO outcome target; however, there were no critical assumptions. Land tenure processes are inherently complex, particularly in a setting such as Malawi, where the population was not familiar with the new land laws and policies. This, coupled with traditional and customary practices that were embedded in society prior to the new laws being approved, added additional complexity. A key assumption would have been that the local population and community leaders understand the land laws that were being piloted and implemented through the project. The results framework's indicators had some shortcomings to adequately capture the ToC. For example, the results framework could have tracked the number of individual land parcels demarcated as well as separating out the complex legal processes of establishing Customary Consolidated Estates (CCE) from the legal process of establishing SOCFEs.

OUTPUTS:

The ICR reported the following additional outputs that did not have targets and were not included in the results framework but were important to the ToC and would contribute to the PDO outcome. The project supported the following:

- All the required institutional structures were established at all local levels for securing land demarcation and rights; government staff received training on land demarcation and rights. The land use system was developed and adopted. Establishment and training of 10 Customary Land Tribunals (CLTs) in Chikwawa and 9 CLTs in Nsanje. Training of 317 land clerks and 35 land registrars. (ICR, p. 24)
- 61,601 land parcels were demarcated, covering 21,071 Ha. (ICR, p. 25) Parcel owners have legal rights recognized by law, such as the right to subdivide or transfer the parcel through inheritance or long-term leases. There are 26,929 land parcels that lie within the irrigation blocks (covering 100 percent of SOCFE areas) and belong to 27,733 landowners—50 percent of whom are women (ICR, p. 25)

The output level indicators for this objective were as follows:

- 38 land use and land tenure plans which include irrigation, developed and approved by village committees and Traditional Authorities (Original target was 35) (**achieved**). The ICR reported that the Ministry of Land used the project as a pilot to implement the new land reforms. All the Group Village Areas within Phase 1 have their Land Use Plans developed and approved by the authorities. (ICR, p. 24)

- 0 SOCFEs with financing plans developed and approved (Original target was 12) (**not achieved**) The ICR reported that although eleven business plans were developed, none have been approved by all

stakeholders (Investment Panel, Technical Investment and Coordination Consultant (TICC) and World Bank) due to suboptimal quality.

- 57 percentage of women, youth, and vulnerable groups in consultation and management entities under project (Percentage) (Original target was 35 percent) (**achieved**) The gender representation in various committees had a positive achievement, especially due to the mandatory gender balance in the Customary Land Committees (CLCs) and the Customary Land Tribunals (CLTs). (ICR, p. 24).

OUTCOMES:

The outcome level indicator for this objective was as follows:

- 1 SOCFE established with formal land tenure (Original target was 10) (**not achieved**). There were 13 SOCFEs established, but only one had completed the process of a Customary Consolidated Estate (CCE), which is the legal mechanism to consolidate land parcels. The CCEs were not issued partly due to a delay in issuing the national regulations. The ICR reported that by the end of 2025, CCEs are expected to be fully implemented for five SOCFEs. (ICR, p. 24). The interview with the Task Team (October 21, 2025) confirmed that securing land tenure through a CCE is independent from establishing a SOCFE, which is a business development vehicle for commercialization. The project made CCE's a requirement of the SOCFEs in order to access the matching grants for on-farm investments under Component 3. The fact that only 5 are estimated to be completed after seven years of implementation, when 13 were the targets, also highlights the complexity of getting landowners to understand what CCEs are, and having them agree to formally join.

The indicators to measure PDO 2 and the ToC had some shortcomings. The project appears to have made substantial progress in demarcating land parcels and registering land titles, a critical step to improving commercialization; however, it did not have indicators that formally tracked these advancements, making it difficult to triangulate the reported information. The project achieved two out of the three output indicators and did not achieve the outcome indicator, resulting in a **Modest** rating.

Rating
Modest

OBJECTIVE 3
Objective
To strengthen the management of wetlands and protected areas in the Shire Valley

Rationale
The ToC in the ICR (p. 3) reflects the *program and the project* and identifies that the outcome of interest for PDO 3 was to strengthen the management of wetlands and protected areas in the Shire Valley. The ToC explicitly details inputs, outputs, and outcomes for management of wetlands and protected areas, which are associated with Component 2 of the project and financing from the Global Environment Facility.

The inputs identified were generally adequate to reach the outcome. These included financing of (i) management plans and community engagement for community-level natural resource management in areas

adjacent to irrigation areas and in wildlife corridors; (ii) development of policies and frameworks to establish the Elephant Marsh Sustainable Use Wetland Conservation Area; (iii) aerial and satellite monitoring to detect illegal hunting and logging; (iv) promotion of nature-based tourism; and (v) policies, procedures and training for wetland management operations. PAD, p. 126-130)

The expected outputs were: (i) management plans and community engagement conducted, (ii) policies, procedures, and training for the development of conversation areas and wetland management operations completed; (iii) aerial and satellite monitoring conducted; and (iv) activities to promote nature-based tourism conducted.

These outputs were expected to lead to outcomes such as: improved management of land and wildlife conservation areas and wetlands, and alternative revenue streams from nature-based tourism.

The result of these outcomes was in turn expected to lead to the PDO outcome of access to sustainable management of water and natural resources, contributing to higher-level objectives on strengthening resilience to climate change.

The ToC's activities, outputs, and outcomes generally provide a logical causal chain that was sufficient to reach the PDO outcome target.

OUTPUTS:

The ICR reported the following additional outputs that did not have targets and were not included in the results framework but were important to the ToC and would contribute to PDO outcome. The project supported the following:

- The project supported the formation of six community conservation area (CCA) committees and governance training for members of the Elephant Marsh Association who are planning nature-based tourism activities. Natural Resource Management Committees (NRMCs) were formed and strengthened in communities surrounding the protected areas. (ICR, p. 9)
- Animal population has increased by 67.6 percent since the beginning of the project following expansion of monitoring activities (calculated in 2023 by the PMT for Lengwe and Mwabvi). (ICR, p. 9)

The output-level indicators for this objective were as follows:

- Aggregate score of 330 on the Management Effectiveness Tracker Tool (METT) for conservation areas (Original target was 377) (**partially achieved**) The assessments were carried out in Elephant Marsh, Lengwe, Majete, Matandwe, and Mwabvi conservation areas. The PAD reports that the METT measures progress in management effectiveness at particular protected area sites over time. It is a qualitative assessment and relies on the judgement and honesty of the assessors, and it addresses changes over time at a single site and provides information about how well management is being carried out. (PAD, p. 42) The ICR did not provide a breakdown by location on METT scores, as was done in the PAD, making it difficult to assess where progress was achieved.

OUTCOMES:

The outcome level indicators for this objective were as follows:

- 212,394 Ha of conservation area brought under an improved management regime (Original target was 273,637 Ha) (**partially achieved**) The ICR reported that six management plans were developed: Elephant Marsh (drafted); Lengwe National Park; Matandwe, Thambani, and Thyolo Forest Reserves; and Mwabvi Wildlife Reserve. The ICR did not provide additional information on this indicator.

The indicators to measure PDO and the ToC had shortcomings. The ICR reported on outputs that were not captured in the results framework such as the formation and training of conservation committees which would be a logical input to improve METT scores. The project partially achieved the output and outcome indicator, resulting in a Modest rating.

Rating
Modest

OVERALL EFFICACY

Rationale
For PDO 1, the project partially achieved the output indicator and did not achieve the outcome indicators, but is likely to do so, resulting in a **Modest** rating. For PDO 2, two output indicators were achieved and one was not. The PDO 2 outcome indicator was not achieved resulting in a **Modest** rating. PDO 3 partially achieved its output and outcome indicator resulting in Modest rating. The overall efficacy rating is **Modest**.

Overall Efficacy Rating
Modest

Primary Reason
Low achievement

OVERALL EFFICACY REVISION 1

Overall Efficacy Revision 1 Rationale
For PDO 1, the project partially achieved the output indicator and did not achieve the outcome indicators, but is likely to do so, remaining a **Modest** rating. For PDO 2, two output indicators were achieved, and one was not. The PDO 2 outcome indicator was not achieved, maintaining a **Modest** rating. PDO 3 partially achieved its output and outcome indicator, resulting in a Modest rating. The overall efficacy rating remains **Modest**.

Overall Efficacy Revision 1 Rating
Modest

Primary Reason
Low achievement

5. Efficiency

Ex Ante Economic Efficiency: At appraisal, the economic rate of return (EIRR) was estimated at 16.14 percent and a Net Present Value (NPV) of US$500 million for the investments based on various benefit streams for

phase I and II of the program. The PAD assessed various scenarios to estimate the EIRR and NPV of the project that included only phase I costs and benefits as well as the combination of phase I and II.

Ex Post Economic Efficiency: The project was not able to generate agricultural benefits by project close because the irrigation infrastructure was not completed. The ICR reported that conducting an economic and financial analysis (EFA) for the project would show no quantifiable benefits, resulting in an efficiency rating of **Negligible**. However, the ICR did conduct an efficiency analysis with an assumption that phase I activities would be completed by 2027. The economic efficiency analysis estimated the EIRR and NPV for both phase I and II at 13.17 percent and US$ 406 million, respectively. These estimates are lower than at appraisal due to higher investment costs and delays in benefits.

Operational and Administrative Efficiency: The project was designed to be implemented over 6 years, but had a 12-month extension, resulting in an overall implementation timeframe of 7 years. The project did experience delays due to factors that were inside and outside the control or influence of the Project Management Team (PMT). The key factor where the PIU had influence was over procurement delays and contract management. This was compounded by external factors outside the control of the PMT that included: (i) the COVID-19 pandemic (border closing and fuel shortages), and natural disasters such as Cyclone Ana, Fred, and Gombe causing significant damage to built infrastructure.

The project did not complete the irrigation works by project close and therefore did not generate any material benefits. The irrigation infrastructure will be finalized by phase II of the program and once completed an accurate economic analysis can be conducted. The efficiency rating is Negligible.

Efficiency Rating

Negligible

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	16.14	0 ☑ Not Applicable
ICR Estimate		0	0 ☐ Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project's relevance was rated as Substantial. Efficacy was rated as Modest and Efficiency as Negligible. The overall outcome, accounting for the split evaluation, was rated Unsatisfactory before and after restructuring, reflecting significant shortcomings in the Project's achievement of its objectives, and its efficiency.

a. Outcome Rating
Unsatisfactory

7. Risk to Development Outcome

The risks to development outcomes are primarily linked to: (i) commitment to implementing reforms, (ii) technical and financial, and (iii) economic. The ICR reports that while the government remains committed to agricultural productivity delays in implementing land and agricultural reforms due to limited institutional capacity and weak interagency coordination pose risks to achieving long-term development outcomes. The technical and financial risks are related to ensuring a high-quality private operator for the bulk water infrastructure and ensuring equitable water delivery across all irrigation blocks. The World Bank has identified that the bulk infrastructure needs an Operations Manual and a Rule Book to promote transparent and equitable water delivery across all irrigation blocks. The ICR identified another technical and financial risk related to the SOCFEs and their ability to identify local financing at reasonable rates from commercial loans, which have high interest rates and may limit their ability to access matching grants for on-farm investments. Malawi's macro fiscal situation is in a worse condition than it was in 2018, with higher inflation and unfavorable foreign exchange rates making project investments more costly during phase II. (ICRR interview with Task Team)

8. Assessment of Bank Performance

a. Quality-at-Entry
The project was substantially relevant and aligned with national priorities related to addressing the challenges to improve agricultural productivity. The design was built upon lessons learned from predecessor projects in Malawi, the region, and globally. Given the complexity of developing agricultural productivity in Malawi, the low institutional capacity, and delays that many projects experience, a positive aspect at the design stage was the Key to the success of this project and the program are land tenure security, land consolidation, and farmers organization, which are intensive and complicated bottom-up processes that needed to be coupled with the top-down centralized planning of large-scale infrastructure. The Task Team at appraisal identified the risks of technical design, institutional capacity for implementation, and fiduciary risks as high. The assumption was that technical assistance providers who would support the PMT would help overcome the capacity and institutional weaknesses; however, that assumption proved incorrect. The ICR (p. 14) reports that the capacity of the technical providers was overestimated. In addition, the scale, breadth, and depth of the operation were inherently complex. Each of the project components was complex in its own right: Component 1's planning, designing, and constructing large-scale irrigation and drainage infrastructure with private sector operation and maintenance, Component 2's resource-intensive social processes to secure land tenure and consolidation, Component 2's wetland management, and Component 3's agribusiness development. The array of actors required to coordinate and implement activities was correctly identified; however, the assumption that the system had the absorptive capacity to implement these activities, even with technical assistance, was relatively optimistic. Additional shortcomings identified in the ICR include an ambitious implementation timeline for the project, an overly simple Results Framework with few indicators to track progress toward the PDOs, and the lack of oversight in identifying and correcting design issues in the

feasibility studies before construction. These are moderate shortcomings that result in a Moderately Satisfactory rating.

Quality-at-Entry Rating
Moderately Satisfactory

b. Quality of supervision

The World Bank provided technical support throughout the project implementation. A total of 14 supervision missions, averaging about two per year, and adapted to virtual missions during the COVID-19 pandemic. The team conducted Mid-term review in September 2021. The project had three different Task Team Leaders (TTLs) and four co-TTLs with neither of the TTLs nor the engineering specialists being present in-country, posing supervisory challenges for such a complex operation and the high level of coordination required. A positive aspect was that the same land tenure and agribusiness specialists remained involved throughout the operation since the early stages of the project, providing continuity and contributing to a strong understanding of the program's context, evolution, and challenges. (ICR, p. 15) The Bank team in the country office maintained continuous engagement with relevant ministries, and the Bank's specialist worked closely with the PMT and the MoL to ensure that national reforms reflected lessons from the SVTP, which served as a pilot for land reform implementation. (ICR, p. 19)

After Cyclone Ana in January 2022, the Task Team supported the client to respond to the emergency and utilize project funds to build a temporary intake and reconstruction of damaged works. The loss of infrastructure built under the project during the cyclone and the need to rebuild was a setback for the project that was outside the control of the PMT and the Task Team. The Task Team only restructured the project one time, close to the official project closing date, and that restructuring did not improve the quality of the results framework to better track achievement of the PDOs, nor scale back the ambition of the project at an earlier stage despite implementation challenges. A more timely restructuring may have allowed the project to realign its targets and indicators to the reality on the ground.

Quality of Supervision Rating
Moderately Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The objectives of the overall program (Series of Projects) were clearly specified in the ToC, and within that, the project (phase I) PDOs were also specified. While the results framework had indicators on agribusiness development, it did not have explicit indicators such as land demarcation to better measure the advancements of securing land tenure, which was a key aspect of Phase I. The ICR reported that during

the Mid-Term Review in September 2021, a more detailed results framework was discussed and was to be used by the PMT, incorporating long-term impact indicators, including activity-level metrics for each component. Despite the PMT's use of a detailed internal framework, progress reports continued to rely on the initial Results Framework's simplified indicators, which omitted key milestones such as canal progress, individual land registration, and income-generating activities around protected areas. (ICR, p. 15)

b. M&E Implementation

The ICR reported that the M&E system was only fully adopted in the later stages of the project. The PMT had hired an M&E specialist who was responsible for monitoring the performance of key indicators in collaboration with implementing agencies from the Ministry of Land and the Department of Forestry. The project conducted a socio-economic survey in 2017 as a baseline, and a follow-up survey in 2023 to further assess socioeconomic impacts, but it is not clear from the ICR what was measured, nor the attribution from project activities. The initial vision at appraisal was to develop a web-enabled management information system to manage information and report progress to support greater transparency, collaboration and improved project governance (PAD, p. 26). It appears that these efforts did not come to fruition. The ICR reported that the project delayed the adoption of Microsoft Project as a management tool until 2024 and began using mobile app-based M&E system in February 2025. The learning and challenges faced with M&E under Phase I informed the design of the results framework for Phase II.

c. M&E Utilization

The ICR reported challenges in collecting and utilizing M&E data. The project relied on manual methods to collect data, and despite implementing agencies being trained to report quarterly, these manual methods limited the effectiveness of monitoring and tracking progress. A mobile app-based system was introduced at the end of 2024, near project closure. (ICR, p. 16)

The PMT also did not effectively track project contracts and timelines and was not able to proactively identify errors and delays. The ICR reported that the PMT only increased the frequency of regular biweekly coordination meetings starting in 2024 and onward to increase reporting of progress.

Despite the weaknesses of the M&E at design, implementation, and utilization, particularly in the initial phase of the project, over time, the Project Management Team made improvements that resulted in Substantial rating.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

Environmental Safeguards: The project was classified as a Category A Project, given the complex impacts on conservation areas related to new infrastructure, water abstraction from the Shire River, and expansion of irrigated croplands. This project triggered the following environmental safeguard policies: Environmental Assessment (OP/BP/GP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP 4.09), Safety of Dams (OP/BP 4.37), and Projects on International Waterways (OP/BP 7.50). A detailed Environment and Social Impact Assessment (ESIA), an Environmental and Social Management Plan (ESMP), and a Pest Management Plan (PMP) were prepared and disclosed in the country and on the World Bank's website. The ICR reported that the mitigation measures in the ESIA and ESMP were partially implemented, and that the project faced multiple challenges that included: (i) recurring environmental, health, and safety (EHS) management issues at construction sites and delays in restoring borrow pit sites; (ii) poor coordination between the project and contractors that were operating within a highly constrained work area inside the Majete Wildlife Reserve; (iii) environment and social risk management processes and procedures for works within protected areas were largely insufficient during the emergency works. To mitigate these risks a memorandum of understanding was signed by key stakeholders.

Social Safeguards: The project triggered the following social safeguard policies: (i) Physical Cultural Resources (OP/BP 4.11), and (ii) Involuntary Resettlement (OP/BP/GP 4.12). The project prepared environmental and social studies based on the Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF). The social risks identified at appraisal were addressed throughout implementation. The expected time lag between land registration and irrigation materialized, but no major issues arose among landowners in the initial three consolidated blocks, and concerns over food security from full parcel leasing to SOCFEs led to a recommendation to preserve some land for subsistence farming. During project implementation, five fatal accidents and two sexual abuse cases occurred and were addressed.

The ICR reported that Resettlement Action Plans (RAPs) were developed and implemented primarily for the main canal and three secondary pipelines, covering land acquisition and cash compensation for asset or income losses. A total of 2,757 project-affected persons (PAPs) (1,146 physically and 1,611 economically displaced) received compensation totaling US$1,470,588 according to the ICR. The ICR reported that RAPs for the remaining secondary pipelines, the proposed realignment of the main canal, and the water treatment plant are under preparation. The GRM remained active throughout implementation, with approximately 100 Community Grievance Redress Committees (CGRCs) in Chikwawa and Nsanje districts and 710 grievances registered to date. The ICR stated that the GRM needs strengthening for works related to natural resource management.

The project faced recurring issues in environmental, health, and safety management (EHS), such as contractors' partial compliance with EHS requirements, delays in implementing livelihood restoration activities, the absence of a community health and safety program, and the repeated postponements in restoring borrow pit sites. (ICR, p. 17)

b. Fiduciary Compliance

Financial Management: The project's financial management was rated Satisfactory throughout implementation. The ICR reported that the project was internally audited on a regular basis, and interim financial reports were shared with the World Bank; however, the ICR did not mention whether external

audits were unqualified. The ICR reported that management letters for both external and internal audits indicated the project's compliance with the Project Implementation Manual (PIM), but there no mention of compliance with the financial covenants. The project experienced shortfalls in achieving the results, partly because funds were redirected to cover reconstruction costs from Cyclone Ana. Moreover, the project experienced foreign exchange rate losses of approximately US$6 million, reducing available funding for project activities.

Procurement: The project faced procurement challenges throughout implementation, some internal to the PMT and others external. Various institutions, such as the Internal Procurement and Disposal Committee (IPDC) within the Ministry of Agriculture, the Government Contracting Unit (which reviews all government contracts), and the Ministries of Justice and Finance, were involved in approvals, slowing the ability of the PMT to take action. Moreover, the lack of familiarity with World Bank procurement regulations by these institutions consumed the time of the PMT to explain why their proposed changes were in conflict with the regulations. Contract management and monitoring were inadequate, with contracts experiencing cost overruns and substandard deliverables. This was an issue raised by the World Bank team during supervision missions. In addition, the PMT did not adequately track contract costs and forecast future payments. (ICR, p. 18) The project closed with a Moderately Unsatisfactory procurement rating.

c. Unintended impacts (Positive or Negative)

n/a

d. Other

n/a

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Unsatisfactory	Unsatisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	

12. Lessons

Complex projects require phased implementation with prioritized activities. In the case of this project, although all components were logical and well-integrated, the overall design proved too complex, with several different components to be implemented almost simultaneously from scratch

in a short period. It required significant shifts in national and local mindset, major political reforms, and strong interagency coordination that were unlikely to be fully achieved within a six-year time frame. For example, training smallholder farmers to operate as cooperatives, implementing comprehensive land legislation reforms, and developing income-generating activities around protected areas to enhance sustainability, all demanded more time and groundwork than originally anticipated. Multiphase programmatic projects are a great opportunity to implement such complex operations, and overlapping phases can serve as an incentive for clients to sustain engagement and follow through with the program. (ICR, p. 21)

Large-scale irrigation projects may benefit from an independent review body for infrastructure designs in contexts where local capacity is weak. A concept similar to the 'dam safety panel of experts' could be applied to large distribution canal infrastructure. Ensuring the feasibility studies engage a highly qualified consulting firm with a multidisciplinary team is essential to achieve cost-effective designs. The shortcomings identified late on the main canal designs in the project could have been avoided with an independent review by reputable irrigation project design specialists, especially if conducted at multiple stages of completion. Additionally, projects in countries prone to frequent climate-related events should integrate resilience measures into their design. (ICR, p. 20)

Building local capability may require more than contracting international consultants, and highly complex operations may benefit from in-country presence of World Bank staff. In complex projects, while hiring international and external experts is necessary, it is equally essential to build a solid knowledge base among government staff responsible for implementing the project. Strengthening local expertise enables government officials to critically assess deliverables from service providers, a challenge that this project has faced due to substandard outputs. Although the PAD acknowledged the limited institutional capacity to manage the project and emphasized the need for specialized technical assistance and project management support, these measures proved insufficient to ensure high-quality deliverables. The PMT placed considerable confidence in the capabilities of the international engineering firm, which failed to deliver the expected standards. Project management support was limited to periodic World Bank missions rather than continuous on-the-ground assistance. Projects of this complexity demand more sophisticated monitoring and likely on-the-ground presence of World Bank staff to provide continuous support for the operations.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provides a detailed overview of the project. The TOC in the ICR was clear but lacked critical assumptions. The ICR was candid about the project's shortcomings and where improvements should have been made in phasing and monitoring, and evaluation. The report is concise and generally follows the ICR guidelines. The ICR's lessons are relatively clear and useful. The quality of the ICR rating is Substantial.

a. Quality of ICR Rating
Substantial