CLIMATE ADAPTATION FOR RURAL LIVELIHOODS AND AGRICULTURE (CARLA) PROJECT

GRANT NO.: 5550155000051

PROJECT CODE: P-MW-C00-001

COUNTRY: MALAWI

PROJECT COMPLETION REPORT

REPORT REVIEW TEAM

Report reviewed by	Name	Date reviewed
Country Manager	Mr Andrew Mwaba	
Regional Director	Mr. Kennedy Mbekeani	
Sector Manager	Mr. Abdoulaye Dagamaissa	
Sector Director	Mr. Chiji Ojukwu	

DECEMBER, 2016

: Abdoulaye Dagamaissa, OSAN 3: Chiji Ojukwu, OSAN: Kennedy Mbekeani, SARC Sector Manager Sector Director Regional Director

Table of Contents

I. B	SASIC DATA	1
	A. Report data	
	B. Responsible Bank staff	
	D. Management review and comments	
	Project performance assessment	
A	A. Relevance	
	1. Relevance of project development objective	
	2. Relevance of project design	3
	3. Lessons learned related to relevance	4
В	3. Effectiveness	
	1. Progress Towards the Project's Development Objective (Project Purpose)	
	2. Outcome reporting	5
	3. Output reporting	6
	4. Development Objective (DO) rating	14
	5. Beneficiaries	15
	6. Unanticipated or additional outcomes	15
	7. Lessons learned related to effectiveness	15
C	2. Efficiency	16
	1. Timeliness	
	2. Resource use efficiency	17
	3. Cost benefit analysis	17
	4. Implementation Progress (IP)	17
	5. Lessons learned related to efficiency	18
Γ	D. Sustainability	18
	1. Financial sustainability	19
	2. Institutional sustainability and strengthening of capacities	19
	3. Ownership and sustainability of partnerships	19
	4. Environmental and social sustainability	. 209
	5. Lessons learned related to sustainability2	ders
		21
	. Bank performance	
	. Borrower performance	
	Summary of key lessons learned and recommendations	
1	. Key lessons learned	25
	. Key Recommendations	
	Overall PCR Rating	
	Annex 2. List of Supervision Missions by the African Development Bank	
	- · · · · · · · · · · · · · · · · · · ·	

CURRENCY EQUIVALENT

(November 2016)

National Currency : Malawi Kwacha (MWK)

1 UA = 980.374 MWK 1 UA = 1.374 USD 1 USD = 730.00 MWK

WEIGHTS AND MEASURES

1metric tonne = 2204 pounds (lbs)

1 kilogramme (kg) = 2.200 lbs 1 metre (m) = 3.28 feet (ft) 1 millimetre (mm) = 0.03937 inch (") 1 kilometre (km) = 0.62 mile 1 hectare (ha) = 2.471 acres

FISCAL YEAR

1st July to 30 June

PROJECT COMPLETION REPORT



CLIMATE ADAPTATION FOR RURAL LIVELIHOODS AND AGRICULTURE (CARLA) PROJECT

I. BASIC DATA

A. Report data

Report date	Date of report:	20 th December, 2016			
	Mission date	From: 10 th October, 2016	To: 26 th October, 2016		

B. Responsible Bank staff

Positions	At approval	At completion		
Regional Director	Mr. Chiji Ojukwu	Mr Kennedy Mbekeani		
Country Manager	Mr. Frank Kufakwandi	Mr Andrew Mwaba		
Sector Director	Mr A. Beileh, OSAN	Mr Chiji Ojukwu		
Sector Manager	Mrs. Josephine Mwangi	Mr Abdoulaye Dagamaissa		
Task Manager	Mr Vinda Kisyombe	Mrs. Nathalie Gahunga		
Alternate Task Manager	Mr Tarek Ahmed	Mr Vinda Kisyombe		
PCR Team Leader		Mr. Vinda Kisyombe		
PCR Team Members		Joseph Byamugisha S/Financial Management Officer (SARC); Emmanuel Chisesa, Senior Procurement Officer and Delight Ngwira, Disbursement Assistant.		

C. Project data

Project name: Climate Adaptation for Rural Livelihoods and Agriculture (CARLA)					
Project code: P-MW-C00-001	ject code: P-MW-C00-001 Instrument Number(s): Grant No.: 5550155000051				
Project type: Investment Project	Sector: Agriculture and Agro-Industry				
Country: Malawi	Environmental categorization: 4				
Processing milestones	Key Events	Disbursement and closing dates			
Financing source/Instrument1 (GEF Grant):	Financing source/Instrument1 Financing source/Instrument1 (GEF Grant):				
Date approved : 10 th November, 2016	Cancelled amounts: 382.54	Original disbursement deadline : 30 June 2015			
Date signed : 18 th January, 2016	Supplementary financing: NIL	Original closing date: 30 June 2015			
Date of entry into force : 18 th January, 2012	Restructuring : NIL	Revised disbursement deadline : 30 June, 2016			
Date effective for 1st disbursement: 12 April, 2012	Extensions dates :30 June 2015 to 30 June 2016	Revised closing date: 30 June 2016			
Date of actual 1st					

disbursement : 12 th April, 2012							
Financing source/instrument	Disbursed amount (amount, UA):	Percentage disbursed (%):	Undisbursed amount (UA):	Percentage undisbursed (%):			
Financing source (GEF Grant)	1,912,309.46	99.98	382.54	0.08			
Government:	0	0	0	0			
Beneficiaries	0	0	0	0			
TOTAL	1,912,309.46	99.98	382.54	0.08			
Financing source/instrument	Committed amount (UA):	Percentage committed (%):	Uncommitted amount (UA):	Percentage uncommitted (%):			
Financing source (GEF Grant):	1,912,309.46	99.98	382.54	0.08			
Government:	0	0	0	0			
Beneficiaries	0	0	0	0			
TOTAL	1,912,309.46	99.98	382.54	0.08			
Co-financiers and other external p	Co-financiers and other external partners: N/A						

D. Management review and comments

Report reviewed by	Name	Date reviewed	Comments
Country Manager	Mr Andrew Mwaba		
Regional Director	Mr Kennedy Mbekeani		
Sector Manager Mr Abdoulaye Dagamaissa			
Sector Director	Mr Chiji Ojukwu		

II. Project performance assessment

A. Relevance

1. Relevance of project development objective

Rating *	Narrative assessment (max 250 words)					
4	The project's development objective of improving resilience to climate change					
	variability and future climate change by developing and implementing adaptation					
	strategies to improve agricultural production is considered relevant. This is because					
	the project responds to the challenges identified on climate change and environmental					
	degradation under MGDS II (2011-2016) theme number 1 which is sustainable					
	economic growth and theme number 6 on cross cutting issues and the three priorities					
	namely (i) agriculture and food security (ii) Green Belt irrigation and water					

development; and (iii) climate change and environmental management. The project activities were also well anchored on the Government's New Agriculture Policy, National Irrigation Policy 2015 and National Irrigation Master Plan and the National Climate Change Management Policy and decentralization policy. This was achieved through implementation of Climate Change Adaptation (CCA) and project formulation and implementation through the district councils. The CCA included climate smart and conservation agriculture, irrigation, livestock and fish production and other income generating activities such as fruit tree propagation. The project was also fully consistent with the 2006-2011 National Adaptation Program of Action (NAPA) for Malawi, which aims at integrating environmental concerns into the country's overall social and economic development strategy.

The project is also consistent with the AfDB ICSP 2010-2012 and the successor CSP 2013-17 which emphasises on two pillars (i) addressing bottlenecks to infrastructure development and (ii) enhancing actions to support the private sector through the CCA as described in earlier sections. The project also responds to AfDB Agriculture Sector Strategy (AgSS 2008-2014) and Agriculture and Agribusiness 2015-19 strategy which focus on infrastructure, natural resource management and agribusiness.

2. Relevance of project design

	T. J. T. W. W. B.
Ratin g*	Narrative assessment (max 250 words)
4	1.0 Community Based Integrated climate change adaptation approach
	The project design used was relevant to the needs of the community and Government since consultancy services (technical assistance) were engaged to develop and pilot new and innovative community based climate change adaptation practices. The process was done in participatory manner such that all relevant community structures were involved.
	2.0 Strengthening the capacity of National and District Agencies
	This component was implemented by building capacity of the national and district structures in order to effectively implement the CARLA activities through: updating and elaborating capacity needs assessment, training, workshops and other capacity development activities for key personnel in the target ministries/departments and in the districts. In addition to field exchange visits, CARLA open days were conducted to enhance knowledge sharing and transfer of experience to other communities and

CARLA handbook produced for dissemination of successful interventions.

3.0 Project Management

This included recruitment of a Project Technical Advisor, 3 District CC Adaptation Officers and technicians and short term consultancies on M & E, Agriculture Livelihoods and Gender to assist in the implementation of the proposed activities. However, delays and failure to recruit the technical assistance staff negatively

^{*} For all ratings in the PCR use the following scale: 4 (Highly satisfactory), 3 (Satisfactory), 2 (Unsatisfactory), 1 (Highly unsatisfactory)

affected project implementation. The project also developed and executed annual work plans and budgets and procurement plans. The project had also put in place a coordination mechanism through a Memorandum of Understanding (MOU) signed by key implementing institutions (EAD and DoI) which was not fully adhered to. The project also undertook project administration and financial administration including annual audits and management of the special account. However, financial management faced a lot of challenges due to frequent changes of staff in the fiduciary sections of the department.

3. Lessons learned related to relevance

Key issues (max 5, add rows as needed)	Lessons learned	Target audience	
1.0 Project Implementation Unit	Timely placement of project implementation teams is key to success of the project	GoM & Bank	&
2.0 Executing agency capacity	Early identification of capacity gaps and staffing will enhance project implementation	GoM & Bank	&
3.0 Staff turn over	Frequent changes of staff working on the project negatively affects project implementation	GoM	
4.0 Community participation in project design	Involvement of the project beneficiaries in the project design process ensures ownership and commitment to project implementation		&
5.0 Decentralization policy	Thorough analysis of the district council's capacity to implement a stand- alone project like CARLA is essential for the sustainable benefits of the project		&

B. Effectiveness

1. Progress towards the Project's Development Objective (Project Purpose)

Comments (indicative max length: 400 words)

The project met its objective since both output and outcomes were rated fully satisfactory. However, there is need for Government to continue supporting the implementation of the CCA activities for continued benefits. However, it was noted that utilization of the irrigation infrastructures was low due to limited extension efforts and low water yield in some solar operated irrigation schemes and inadequate water for second cropping under gravity fed irrigation schemes due to effects of two consecutive drought years.

Summary of progress on project components

1.0 Community Based Integrated climate change adaptation approach:

In each of the three CARLA sites seven (7) interventions were successfully implemented and the progress towards the end of project targets is summarized as follows: (i) 200 ha out of 180 ha end of project target was developed for irrigation; (ii) 15 out of 17 fish ponds were constructed; (iii) 1048 out of 900 ha area conserved; (iv) on livestock development 6,665 goats of 4264; 160 of 160 sheep; 10,338 of 4624 chicken; 270 of 270 pigs and 0 of 2,482 guinea fowls were distributed; the figure for

guinea fowls was re-allocated to chicken due to scarcity of the t guinea fowls; (v) 288 of 250 ha were planted to drought tolerant crops namely sorghum, millet, cassava and sweet potatoes; (vi) 6,294 out of 9,200 fruit tree seedlings were propagated and (vii) 939,925 out of 1,020,000 trees were planted.

2.0 Strengthening the capacity of National and District Agencies

This component aimed at building capacity of the national and district structures in order to effectively implement the CARLA activities. The project conducted a needs assessment study in the second year of the project and based on these needs and training program was developed for both staff and community beneficiaries. As at the end of the project the 29 out of 25 staff members were trained on climate change adaptation and model villages while 34 staff were trained on M & E. At district level 131 out of 75 staff were trained on climate change adaption activities and model villages while 64 out of 30 staff participated in field exchange visits. Training for beneficiaries on all the CCA except for irrigation, fish farming and soil and water conservation (SWC) were 94, 77 and 63 % achievement were recorded surpassed their targets.

3.0 Project Management

- 3.1 The project recruited a Technical Advisor, 3 CARLA Officers and 3 CARLA technicians, and one short term (Agricultural Livelihoods Officer). Gender, M & Experts and project accountant were not recruited. However, due to fiduciary challenges observed, a Project Accountant was recruited to assist Government in managing the financial records. The recruitment of the PIU staff including the project accountant though late significantly contributed to the achievement on project outputs and outcomes. In terms of project M & E and financial management, there has been poor performance with delays in submission of quarterly progress reports, audits and justifications of expenditure. The AfDB Bank led Supervision, Mid-Term Review (MTR) and Project Completion Report (PCR) Missions were implemented as planned.
- 3.3 In terms of project coordination, an MOU was signed between Department of Irrigation (DoI) and Environmental Affairs Department (EAD). The MOU was not fully implemented as coordination meetings between the two institutions were irregular and very often the field teams were not timely supported resulting into loss of some agricultural seasons for some interventions. The situation was further aggravated by the limited guidance the project got from the Project Steering Committee.

2. Outcome reporting

Outcome indicators (as per RLF; add more rows as needed)	Baseline value (2006)	Most recent value (A) 2011	End target (B) (expected value at project completion)	towards target (%	Narrative assessment (indicative max length: 50 words per outcome)	Core Sector Indicator (Yes/No)
Outcome 1: Maize yields in the three project districts	2.13	4.0	3.5 (2015)	136	The end target has been surpassed because of introduction of solar operated irrigation technology in Chikwawa and	Yes

					Karonga and gravity fed irrigation schemes in Dedza, conservation agriculture and early maturing/drought tolerant and high yielding varieties.	
Outcome 2 Average income per household increased (MK/HH/Yr)	82,125	150,000	150,000	100	The end target has been reached due to implementation of all climate change adaptation. 98% of all the CCA have been achieved.	Yes
Outcome 3: Number of months with food sufficiency in the three project districts	3	9	9	100	The end target has been achieved because of crop diversification due to introduction of drought tolerant crops (cassava, sweet potatoes, sorghum and millet), irrigation farming, fish farming and livestock distribution.	Yes

Source: End of CARLA Project Evaluation Report (Please indicate the source of figures in the table above)

Rating*	
(see IPR	
methodology)	
4	The project has achieved all its expected targets for outcomes as set at
	appraisal

3. Output reporting

Output	Most	End	Progress	Narrative	Core
indicators	recent	target	towards	assessment	Sector
	value	(B)	target (A/B)	(indicative max length:	Indicator
	(A)			50 words per output)	
1. Climate					
Change					
Adaptation					
(CCA) Activities					

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
1.1. No. of model villages	3	3	100	The model villages were identified before the project was taken to the AfDB Board and what was done was the confirmation of the sites and identification of additional beneficiaries to meet the target of 10,000 per GVH.	N/A
1.2.1 No. of communities (GVHs) replicating CCA activities	27	6	450	27 villages with 12,678 beneficiaries have also benefitted from the project that were not in the original plan. This is due to the interest shown by the individuals since the interventions were addressing felt needs of the villages.	N/A
1.3.1 No of community action plans developed	3	3	100	Community plans were timely prepared in all the 3 villages at the beginning of the project. During this period SCPMP PCU was still in place to implement the activity	
1.4.1 No of CARLA events/Field days	6	6	100	All CARLA field days were held as planned in numbers but delayed in terms of time. Most of these field days were held in the final year.	N/A

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
1.4.2 Area under irrigation (ha)	200.5	180	111	The areas developed for irrigation was more than what was planned due to the introduction of 60 ha area to be irrigated using solar energy. The technology was introduced in response to beneficiaries' complaints on the low water yields and drudgery when using treadle pumps. In addition use of motorized pumps was found to costly in Karonga. However utilization of the irrigation facilities was very low estimated at 30% on average. A total of 1651 farmers with 876 being women (53%) benefited from this intervention.	
1.4.3 Number of fish ponds constructed	15	17	88	There is less number of fish ponds achieved than planned due to water scarcity, competing approaches with LDF where construction of such facilities had some cash incentives and inadequate extension support. A total of 418 farmers with 248 (59%) of them benefited.	

Output indicators	Most recent value	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length:	Core Sector Indicator
1.4.4 Area conserved (ha)	(A) 1048	900	116	The area achieved under conservation agriculture was more than the target because of more farmers adopting soil fertility improvement technologies including manure application, gully reclamation, pit planting, agroforestry. A total of 13,262 with	
1.4.5 No. Of livestock distributed				7,506 (57%) being women participated in this activity.	
1.4.5.1 Goats	6665	4 264	136	There were more goats distributed than planned because of increased demands from the community since it had immediate benefits through the pass on system. Through the pass on system. Through the pass on system more goats were also made available to the beneficiaries. However, the ratio of goat distribution was higher (2goats/household than the Government recommended ratio of 4+1 goats to household. A total of 4647 with 2696 (58%) being women received the goats.	

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
1.4.5.2 Sheep	160	160	100	The achievement is 100% for the sheep but could have attained more if procurement had started in the first year of the project. The benefit of pass on system will be captured after the project closure. Only 20 people with 13 (65%) being women received the sheep.	
1.4.5.3 Chickens	10338	4624	224	There 224% achievement on chicken because the target for guinea fowls was re-allocated to chicken after having difficulties to get the breeding stock for guinea fowls. 2695 with 1630 (60%) being women received the chicken.	Yes
1.4.5.4 Pigs	270	270	100	The achievement is 100% for the sheep but could have attained more if procurement had started in the first year of the project. The benefit of pass on system will be captured after the project closure. 282 with 150 (53%) being women received the pigs	
1.4.5.5 Guinea Fowls	0	2482	0	As explained in 1.4.5.3 above	Yes

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
1.4.6 Area under drought tolerant crops (ha)	288	250	115	The project achieved 115% of the target area for drought tolerant crops i.e. sorghum, millet, cassava and sweet potatoes. 706 with 370 (52%) being women planted the drought tolerant crops.	Yes
1.4.7 No. of fruit trees propagated	6 294	14500	47	Only 47% achievement was recorded on fruit tree propagation because of the long period taken to access benefits In addition there was limited extension support from the field due to lack of relevant expertise in the area. 339 with 181 (53%) being women participated in this activity.	Yes
1.4.8 Number of trees planted	939,925	1020000	92	92% was achieved due to lack of immediate benefits and incentives. In addition, the communities preferred individual woodlots more than the communal woodlots. 1323 with 545 (41%) being women planted trees.	
2.0 Strengthening the capacity of National and district agencies					

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
2.1 Train community leaders and stakeholders on vulnerability assessment & action planning	60	60	100	30 of the community members trained were women	Yes
2.2 Train members of Village Development Committees (VDCs) for the target areas	120	120	100	60 of the community members trained were women	Yes
2.3 Train Traditional leaders (Tas, GVHs & VHs) in the target areas	90	90	100	Training for community based approach was done for all the traditional leaders from Village headmen to Traditional authorities level	Yes
2.4 Conduct National Training of Trainers workshops (DESC)	140	140	100	All DESC members in each of the three districts were trained	Yes
2.5 Train Frontline Extension Staff in the target sites of the 3 districts	85	45	100	All field extension staff were trained in all the project sites	Yes
2.6 Conduct inter-district knowledge exchange	72	36		More local leadership participated in the field exchange visits. This will enhance dissemination of the project activities to other areas.	Yes

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
2.7 Produce CARLA Handbook of best practices	1	1	100	One CARLA Handbook was produced and several copies will be made for dissemination	Yes
3.0 Project Management					
3.1 Conduct Baseline study	1	1	100	The baseline study was conducted though relatively late r than the scheduled time	NO
3.2 Procure goods & services	Vehicles (3); Motor cycles (3); Bicycles (36); Solar pumps (6)	Vehicles (3); Motorcycles (3); Bicycles (36) & Solar pumps (6)	Vehicles (100); Motorcycles (100); Bicycles (100) & Solar pumps (100)	100% achievement on procurement of assets for the project	NO
3.3 Recruit Project Staff	PM (0); CARLA Officers (3) Technicians (3) Short Term (1)	PM (1); CARLA Officers (3); CARLA Technician (3); Short Term Consultant (3)	CARLA Officer (100); CARLA Technician	Only 1 short term consultant was recruited (Agricultural Livelihoods) against 3 because Government assured the Bank that it had adequate capacity for Gender and M & E. A project Accountant was also recruited on the advice from the Bank after noting serious fiduciary challenges on the project	NO
3.4 Hold project steering committee meetings	4	6	67	4 of the 6 PSC meetings were held.	NO
3.5 Conduct Bank led supervision missions.	7	7	100	All Bank led supervision Missions were conducted	NO

Output indicators	Most recent value (A)	End target (B)	Progress towards target (A/B)	Narrative assessment (indicative max length: 50 words per output)	Core Sector Indicator
3.6 Carry out Annual Audit reports	2	3	67	One end of year audit is outstanding and is due on 31 st December, 2016	NO
3.7 Drill boreholes	6	6	100	All the planned boreholes were drilled	NO
3.8 Produce Quarterly Progress reports	16	16	100	All quarterly progress reports were produced and submitted to the Bank	NO
3.9 Conduct project review meetings	12	16	75	75% of the project review meetings were conducted. This confirms the coordination challenges which were being experienced during the project implementation	NO
3.10 Conduct MTR Mission	1	1	100	One MTR was conducted as scheduled	NO
3.11 Conduct PCR Mission	1	1	100	One PCR was conducted as scheduled.	NO

Rating*	Narrative assessment
(see IPR	
methodology)	
4	All the outputs assessed were on track and there is need for the
	Government to ensure that activities are sustained beyond project closure
	for sustained benefits. The overall output rating is fully satisfactory

4. Development Objective (DO) rating1

DO rating	Narrative assessment
(derived from	(indicative max length: 250 words)
updated IPR)*	
4	Both output and outcomes were rated satisfactory. The project achieved 4.0

_

¹ For operations using the old supervision report and rating system in SAP, the DO rating for the PCR shall be calculated using the IPR methodology.

tons/ha from 2.6 ton/ha national average yield against a target of 3.5 ton/ha, achieved 100% target on incomes and an increase from 3 months to 9 months of food self-sufficiency against a target of 12 months. On all outputs overall achievement was rated at 94.7%. However, there is need for Government to continue supporting the established sustainability measures for continued benefits in the target communities and address challenges affecting the utilization of the irrigation infrastructures developed.

5. Beneficiaries

Actual (A)	Planned (B)	Progress towards target (% realized) (A/B)	% of women	Category (eg. farmers, students)
37,664	30,000	126%	53%	The number of beneficiary farmers surpassed the original target as at the end of the project period. There was positive response from the communities due to the felt needs arising from the frequent disasters occurring the targeted communities. Women participation was estimated at 60% of the total beneficiaries and at the end of the project a total of 53% women participated in the project.

6. Unanticipated or additional outcomes

Description	Type (e.g. gender, climate change, social, other)	Positive or negative	Impact on project (High, Medium, Low)
1) The introduction of boreholes to provide water for afforestation and fruit tree propagation nursery activities improved access to clean and safe water by households.		Positive	High
2) Employment creation for communities brought extra incomes to wage earners those engaged by the contractor installing solar pumps and drilling of boreholes by the water resources department and the suppliers of various items on the project	economic	Positive	Medium

7. Lessons learned related to effectiveness

Key issues (max 5, add rows as needed)	Lessons learned	Target audience
afforestationa and fruit	Activities with long gestation period in accessing benefits are less preferred by the communities than those that give immediate benefits.	

Key issues (max 5, add rows as needed)	Lessons learned	Target audience
of irrigation	Disjointed efforts between the Extension officers and Irrigation officers affect eventual utilization of the irrigation facilities developed.	
· ·	Engaging different contractors for borehole drilling and solar pump installation results into information gaps that may affect the water availability for irrigation.	Governm ent
4. Irrigation technologies for smallholder farmers.	Treadle pump technology which is labour intensive and motorized pumps which are costly and environmentally unfriendly are not suitable for smallholder farmers.	Bank and Governm ent
5. Low participation on communal woodlots activities	Beneficiary farmers prefer individual woodlots to communal woodlots	Governm ent
6. Sustainability of projects benefits	Capacity building for local leadership and Implementing staff will guarantee sustainability of project benefits	Bank and Governm ent
7. Dissemination of CCA technologies	Farmer Field Exchange visits, field open days and Farmer Field Schools are useful tools for dissemination of technologies	
8. Livestock pass on system and other revolving funds	Greater impacts could be realized if Government policy recommendations were adhered to when distributing livestock	
9. Seed stocks for the project	Availability of seed/livestock planned for promotion in the project should be considered during project planning	
10. Project Staffing	Critical analysis of the staffing levels in the executing agency and their availability is required to inform the composition of the PIU for the project	
11. Project Steering Committee	PSC guidance during project implementation is key to project success.	Governm ent
12. Harmonization of approaches	Harmonization of approaches by the different organizations in the same area will enhance delivery of results	Governm ent
C. Efficiency		I

1. Timeliness

Planned project duration - years (A) (as per PAR)	Actual implementation time – years (B) (from effectiveness for 1st disb.)	Ratio of planned and actual implementation time (A/B)	Ratin g*
3.67	4.67	0.79	3

Narrative assessment(indicative max length: 250 words)

At appraisal, in November, 2011, the project was designed to be implemented within 4 years and 3 months from April 2012 to 30th June 2015. The Protocol of Agreement was signed on

18th January, 2012 and the project became effective in April, 2012 with the last date of disbursement as 30th June 2015. The project however, experienced delays after the transition from the SCPMP PCU management to Government's own internal Project Implementation Unit. The delays in recruiting technical assistance staff as planned during appraisal led to loss of some agricultural seasons since the staff appointed by Government were committed to other activities within the department. In view of these challenges, the last date of disbursement was extended to 30th June 2016. The recruitment of the PIU staff from the external market, however, helped the project to recover and enhanced the rate of project activity implementation resulting into the overall achievement of 94.7% for the project. If the PIU was timely recruited, the overall physical implementation status would have surpassed all the targets.

2. Resource use efficiency

Median % physical implementation of RLF outputs financed by all financiers (A) (sN/Aee II.B.3)	Commitment rate (%) (B) (See table 1.C – Total commitment rate of all financiers)	Ratio of the median percentage physical implementation and commitment rate (A/B)	Rating *
98	99.98	0.98	3

Narrative assessment(indicative max length: 250 words)

The satisfactory rating is based on the appraisal targets for climate adaption activities, capacity building and project management and coordination. The overall physical project implementation is estimated at 98%. This arises from 94.7% achievement on component 1 (community based integrated climate change adaptation approach). The low achievement on component 1 is due to low uptake on fruit tree propagation and afforestation which take some time to get benefits and also competition with other programs which provided cash incentives. On component 2 (capacity building for national, district and area level estimated at 100% and component 3 (Project management) estimated at 98% due to the outstanding audit. The project has utilized almost all the resources allocated to the project estimated at 99.98%.

3. Cost benefit analysis

Economic Rate of Return (at appraisal)	Updated Economic Rate of Return (at completion)	Ratin g*
N/A	N/A	
Narrative assessment(indicative max length: 250 words)		
N/A		

4. Implementation Progress (IP)²

II	Rating	Narrative comments
(derived	(commenting specifically on those IP items that were rated Unsatisfactory or
	from	Highly Unsatisfactory, as per last IPR). (indicative max length: 500 words)
ι	updated	
	IPR) *	

²For operations using the old supervision report and rating system in SAP, the IP ratings need to be converted from the 0-3 scale used in SAP to the 1-4 scale used in the IPR.

_		
	3.1	1. The project rating on audit was unsatisfactory because of delays in the submission of audits with one the audit report submitted being qualified. There have been slow progress on the implementation of recommendations by the auditors resulting into many issues remaining unresolved. At the time of the PCR Government had not yet refunded USD 21,161(MWK 8,573,751.75) for ineligible expenses and had not yet justified USD 665,066.02 of the USD 744,939.01.
		2. The project rating for monitoring and evaluation was also unsatisfactory. The project experienced challenges in this section because lack of consistency on the staffing and also lack of commitment by the officer assigned to implement an M & E system for the project. The project delayed to submit the quarterly progress reports, agricultural productivity data, data on Farmers Field School and other project monitoring aspects. The project could not conclude the baseline data in good time as well as the end of evaluation report. The project had made provision for a short term M & E consultant but Government opted to use its own staff who was overwhelmed with other commitments within the department.
	ı	

5. Lessons learned related to efficiency

Key issues (max 5, add rows as needed)	Lessons learned	Target audienc e
1. Implement ation Unit	Thorough analysis of the Government capacity and timely decision to engage external staff in the project will help to deliver the project objectives.	
2. Fiduciary management	Frequent changes in the staffing of fiduciary staff limited progress in implementation of the project activities.	Govern ment and Bank
3. Executing agency	Identification of appropriate Unit/Department /Ministry for execution of the project is key to the successful implementation of the project.	

D. Sustainability

1. Financial sustainability

Ratin g*	Narrative assessment (indicative max length: 250 words)
3	The project was financed by the global environmental facility GEF for an amount of
	USD 3 million and to date 99.98 % has been invested in the project. The resources
	have been used to finance implementation of the various climate adaptation activities
	as prioritized by the beneficiary communities and training for staff and farmers. The
	communities have established revolving funds where individuals contribute
	membership fees at the cost of MK 500.00 per member and Water User fees for

irrigation farmers at Mk2,500.00/member/year for operation and maintenance of the schemes. Seed revolving schemes have also been established with grain banks strategically located in the villages where seed is distributed to individuals who pay back twice as much to the grain banks (1: 2) ratio for seed repayments. Other sustainability measures include the pass on system for livestock, establishment of nurseries for vegetative planting materials such as cassava and sweet potatoes have also been promoted to ensure continued access to high quality seeds and livestock by the project beneficiaries.

In addition to the measures for enhancing access to capital inputs for further investments, Government has incorporated activities on CARLA in its national budget for continued support to the project activities in the CARLA sites. It is also envisaged that activities under the project will be included in the subsequent national budgets to ensure sustainability of the activities.

2. Institutional sustainability and strengthening of capacities

Ratin Narrative assessment (indicative max length: 250 words) g* 3 The project was implemented within the established structures in DoI and Environmental Affairs Department and the 3 District Councils. Headquarters and District Subject Matter specialists from the relevant sectors involved were trained and or oriented to the CCA being implemented in the CARLA sites. The replacement of the externally recruited Program Manager by a Government officer provided an additional strength in the continuity of the project activities. In addition, the recruitment of a Project Accountant with adequate experience from donor funded projects towards the end of the project helped to enhance the capacity of the existing staff in the fiduciary section. The Project also provided training to community based structures such as 60 CARLA committees leaders (30 being women), 120 Village Development Committees (VDCs) members with 60 being women, 90 traditional leaders comprising group

committees leaders (30 being women), 120 Village Development Committees (VDCs) members with 60 being women, 90 traditional leaders comprising group village headmen, village headmen and traditional Authorities and 93% of the total beneficiary farmers were trained in any of the CCA being promoted. In addition 140 DESC members and 55 field extension staff were trained on climate change adaptation technologies However, the farmers needed more training on community based participatory monitoring and evaluation in order to effectively track progress on the project. Other measures for sustainability include the use of lead farmer concept where successful farmers transfer information to others in the communities.

3. Ownership and sustainability of partnerships

	Narrative assessment (indicative max length: 250 words)
3	Community ownership of the project was attained through participatory approach during project identification, design and implementation. This involved a broad multi-
	stakeholder consultation throughout the country. Key elements of the participatory process included: a baseline survey in 17 communities; three series of district workshops/consultations, including field visits to targeted communities; key informant

interviews/meetings at district and national levels; and two national stakeholder workshops.

The project was designed and implemented through decentralized structures in 3 district councils. At the headquarters the project was managed by the Department of Irrigation in collaboration with the Environmental Affairs Department. The project also engaged other key departments such as forestry, fisheries, water, land resources conservation, horticulture, and research institutions such as Kainthula, thereby enhancing partnerships and collaboration amongst the various sectors with the aim of building community resilience to climate change effects.

However, the land tenure issue need to be addressed for irrigation activities where the ownership of land is twofold i.e. original owner cultivates during the rainy season and the irrigation members under WUA rent the same pieces of land. There is need for the two parties to sign a participatory land management agreement.

4. Environmental and social sustainability

Ratin g*	Narrative assessment (indicative max length: 250 words)
4	The project being a climate change adaptation did not envisage negative effectives for its activities since they were designed in such a way that negative effects were mitigated.
	However, the project implemented some of the activities which were meant to minimize the gas emissions into the atmosphere. These included the activities on afforestation both communal and individual woodlots. Households have been requested to plant at least ten (10) trees per household. By-laws have been put in place in order to curb the wanton cutting down of trees and grazing of livestock in the woodlots.
	The implementation of afforestation activities in the river line and other watershed catchments and other conservation activities enhanced the conservation of water and soil for sustained use by the beneficiary farmers.

5. Lessons learned related to sustainability

Key issues (max 5, add rows as needed)	Lessons learned	Target audience
Financial sustainability	Increased understanding on farmers' contribution towards capital investments and operation and maintenance will enhance financial sustainability for the CCA interventions introduced in the area.	Government
2. Institutional sustainability and strengthening of capacities	Inadequate institutional capacities at national and district level negatively affect project implementation.	Government and Bank

3. Ownership of project investments	The culture of ownership is achieved through continuous engagement of the project beneficiaries throughout the project cycle.	Government
4. Environmental management	Implementation of activities that minimize the carbon emissions reinforce the benefits realized from adaptation activities	
5. Sustained use of the irrigation infrastructure developed	Environmental and conservation measures in the catchment areas (upstream) are key to sustained use of the irrigation infrastructures being developed downstream.	

III. Performance of stakeholders

1. Ban	k performance
Ratin g*	Narrative assessment by the Borrower on the Bank's performance, as well as any other aspects of the project (both quantitative and qualitative). See guidance note on issues to cover.(indicative max length: 250 words)
3	The Bank's performance has largely been satisfactory. On a negative note, the Bank's delays in the approval of the project after GEF board had approved affected the morale on the ground and also allowed some NGOs to start implementing their activities in some of sites because they had assumed that CARLA would not take off. Delays in approving the project by AfDB after GEF approval led to delay in the
	commencement of the project resulting into delays in completion of the project. On the other hand, the Bank's support to the project was smoother due to the presence of the Malawi Field Office.
	The Bank also held supervision missions in a timely manner where prompt remedial actions were implemented in order to maintain project activities on course. The MTR and PCR held in 2012 and 2016 respectively were timely. The fiduciary clinics played a crucial role in clarifying financial and procurement issues. Such clinics were instrumental in facilitating the timely implementation of the

project as they provided clarity on financial and procurement matters. However, the frequent changes of the staff in the executing agency undermined the effectiveness of the trainings provided.

The decision by AfDB to reallocate the oversight of implementation of the Project from Environmental Affairs Department (EAD) (developers of the project) to Department of Irrigation and Water Development (DoIW) bred coordination challenges in the initial stages of implementation of the project.

Comments to be inserted by the Bank on its own performance (both quantitative and qualitative).

See guidance note on issues to cover. (indicative max length: 250 words)

Project design was informed by a feasibility study which was conducted in 17 districts of Malawi. The study reviewed the NAPA priority areas and identified the

implementation under CARLA project. The study identified potential CCA interventions, target villages and districts and the approach. The project design emphasized on community ownership through vulnerability assessments, activity profiling and actual implementation by the communities themselves

The Bank facilitated a project launch in April 2012 where implementing staff were accorded an opportunity to be introduced to the Bank's fiduciary rules and procedures, the IPR reporting systems, project management and M & E issues. The implementers also shared experiences and challenges from the previous Bank financed projects and made some changes to some aspects of the project such as increase in the number of beneficiary villages and resource flow to the districts.

The Bank fielded fifteen (8) supervision missions; 2 missions per year on average. The Bank skills mix comprised Agriculture Economist, Procurement officer, Disbursement Assistant, Financial Management Specialists and Gender Officer. GEF officials also joined one of the supervision mission to follow up on the progress and document some of the successes accomplished by the project. The Bank's supervision missions did adequately address financial management issues. However, due to frequent change of staff and sometimes lack of qualified financial officers attending to the project, the recommendations were not adequately implemented. To address this challenge, a project accountant was outsourced for the project during its last year.

Key issues (related to Bank performance, max 5, add rows as needed)	Lessons learned
1. Project preparation and implementation timing	Long-time lags between GEF approval and the Bank's approval resulted into some sites getting support from other NGOs on similar interventions
2. Country Office operations	The Malawi Field Office improved dialogue between Government and the Bank on issues affecting progress during project implementation. The presence of an alternate Task Manager in the field office further enhanced follow ups on issues.
3. Fiduciary training and project reviews	Targeting more staff on fiduciary training in the executing agency will minimize the risk of staff changes during project implementation.
Financial	Adequate capacity in the fiduciary units in all the implementing offices will ensure effective financial management of the project. Where necessary external technical assistance will be required.

2. Borrower performance

Ratin	n Narrative assessment on the Borrower performance to be inserted by the Bank				
g*	(both quantitative and qualitative, depending on available information). S	ee			

guidance note.(indicative max length: 250 words)

The government fulfilled all grant conditions within the six months period from board approval on 10th November, 2011 resulting into the project being declared effective in April, 2012. The project implementation progress was however negatively affected by the change of the executing agency from EAD to DoI and delays/failure to recruit technical assistance and short term consultants (Gender. Agriculture Livelihoods and M & E Officer) as planned during appraisal.

Government also had capacity challenges in the fiduciary section resulting into failure to timely produce audit reports and justify project expenditures and financing the districts. In order this challenge, a Project accountant was recruited in July 2015 one year to project closure.

The project had coordination challenges between the EAD and DoI despite the signing of the MOU which clearly defined the roles of each institution. DoI as a leading agency did not adequately consult or engage the other key implementing partner (EAD) in the course of project implementation. Despite the AfDB Mission flagging out the issue of poor coordination, very little improvements were observed on the ground during the missions.

There were also challenges in the fiduciary sections of the district councils due to frequent changes of staff. The staff changes significantly undermined the effectiveness of the fiduciary clinics organized by the Bank. On the technical side, acceptance of the new staff into the government systems and coordination for the subject matter specialist in the districts also difficult.

Key issues (related to Borrower performance, max 5, add rows as needed)	Lessons learned
1. Project geographical coverage	A wide geographical spread of the project sites makes implementation costly in time and financial resources and adversely affects quality and timeliness of implementation.
	Lack of full time and qualified staff on the project will undermine project implementation and reduce the likelihood of attaining the project objectives
3. Staff turn over	Frequent change of project staff undermines project performance
4. District Councils capacity	Thorough analysis of the district capacity to implement a particular project should be prioritized during project formulation/appraisal
5. Project	Executing agency for the project should be consistent with the subject

Executing	matter being addressed	
Agency		
3	A champion for multi-sectoral coordination is essential for effective	
Coordination implementation of a climate change project link CARLA		

3. Performance of other stakeholders

Rati ng* Narrative assessment on the performance of other stakeholders, including co-financiers, contractors and service providers. See guidance note on issues to cover.(indicative max length: 250 words)

Goods: The project was supported with 3 motor vehicles, 36 bicycles and sets of equipment which were supplied by companies in good time quality. The suppliers of livestock (goats, sheep and chicken) and other crop seeds/tree seeds and planting materials delivered them in quantities as required though there were some delays experienced due to challenges experienced in sourcing some of the inputs. In addition to private companies/individuals government institutions such as Kasinthula Research Stations and Land Resource Centre also supplied some of the inputs.

<u>Works:</u> The project engaged only one contractor, SAWA Group Company which supplied and installed solar pumps and accessories in 6 irrigation schemes. Boreholes for irrigation water were dug by the Water Resources Department which declared adequate water yields for the irrigation schemes contrary to the supplier of solar pumps. Assessment of the work indicated that the contractor supplied and installed quality items and met international standards. However, theft of the panels in Karonga and Chikhwawa districts were reported and the contractor replaced them without any cost. In view of this development, communities have resorted to employing full time guards for the solar equipment to prevent further theft cases.

The borehole drilling was done by the Department of Water resources using the force account as approved by the Bank. The Water Department drilled all the boreholes in time except for one borehole where there were some difficulties in getting the required water yield.

Key issues (related to performance of other stakeholders, max 5, add rows as needed)	·	Target audience (for lessons learned)
,	Technical challenges may arise when different contracts are awarded for separate activities of the same assignment.	Bank and Government
	Proper procurement planning will reduce delays in delivery of required items for the project	Government

IV. Summary of key lessons learned and recommendations

1. Key lessons learned

1. Key lessons learned			
Key issues (max 5, add rows as needed)	Key lessons learned	Target audience	
-	Activities with long gestation period before accessing benefits are less preferred by the communities than those that give immediate benefits.		
2. Low	Disjointed efforts between the Extension officers and Irrigation officers negatively affect utilization of the irrigation facilities developed.		
yield in solar	Engaging different contractors for borehole drilling and solar pump installation results into information gaps that may affect the water availability for irrigation.		
4. Irrigation technologies for smallholder farmers.	Treadle pump technology which are labour intensive and motorized pumps which are costly and environmentally unfriendly are not suitable for smallholder farmers.		
5. Low participation on communal woodlots activities	Beneficiary farmers prefer individual woodlots to communal woodlots	Bank and Government	
6. Project staffing challenges	Timely deployment of technical assistance will enhance project implementation and realize maximum benefits from the project Identification of capacity gaps in the executing agency and timely replacement will lead to attainment of development objectives of the project Adherence to the original project staffing could have helped to ease implementation challenges	Government	
7. Fiduciary Staff Training	Targeting more fiduciary staff within the department during fiduciary clinics could help to overcome the problem of frequent staff changes on the project. Outsourcing experts to handle fiduciary matters could minimize the challenges arising from frequent change of staff.		

Key issues (max 5, add rows as needed)	max 5, add rows as	
8. District Councils capacity	Thorough analysis of the district capacity to implement a particular project should be prioritized during project formulation/appraisal	
9. Project Executing Agency	Executing agency for the project should be consistent with the subject matter being addressed. For instance EAD was best placed to be the executing agency than DoI.	
10. Project Coordination	A champion for multi-sectoral coordination is essential for effective implementation of a climate change project	Bank and Government
11. Financial sustainability	Increased understanding on farmers' contribution towards capital investments and operation and maintenance will enhance financial sustainability for the CCA interventions introduced in the area.	Government
sustainability and	Capacities of national and districts agencies need to be enhanced to ensure sustainability of project activities in the target areas beyond project implementation period.	

2. Key Recommendations

Key issue (max 10, add rows as needed)	Key recommendation	Responsible	Deadline
Low -utilization	Provide adequate extension services AAto irrigation farmers in the target sites	MoAIWD	December, , 2013
,	Address the technical challenges on the solar installation systems to ensure that there is adequate water for irrigation.		December 2016
Project sustainability	Hand over all project activities to the local leadership in each site	District Commissioners	31 st December, 2016
Afforestation	Support the beneficiary communities with nursery materials, equipment and training	Forestry Officer	On going
Irrigation	Intensify extension efforts in all the schemes and assist farmers to develop a cropping calendar and crop rotation plan to avoid pest build up in the fields.	-	On going
	Facilitate linkages between the farmers and private sector companies.	Agribusiness Officer	On going

Key issue (max 10, add rows as needed)	Key recommendation	Responsible	Deadline
Livestock	Conduct a formal handover to the traditional leader and the CARLA committees for continuity of the pass on system	District Commissioners	31 st December, 2016.
Financial management	Close all the project bank accounts Submit the 2015/16 audit report and management letter to the Bank	Financial Controller-DoI Financial Controller-DoI	31
Disbursement	Government to refund USD21,161.19 (MWK8,573,751.75) ineligible expenditures	Financial Controller-DoI	28 th October 2016
	Government to justify expenditures in full	Financial Controller-DoI	28 th October 2016.
Procurement	Undertake the appraisal of all service providers, suppliers and contractors who were engaged during project implementation and share the results with ODPP and the Bank		31 st October 2016.

	V. Overall PCR Rating
Dimensions and criteria	Rating*
DIMENSION A: RELEVANCE	4.00
Relevance of project development objective (II.A.1)	4
Relevance of project design (II.A.2)	4
DIMENSION B: EFFECTIVENESS	4.00
Development Objective (DO) (II.B.4)	4
DIMENSION C: EFFICIENCY	3.0
Timeliness	3

(II.C.1)	
Resource use efficiency (II.C.2)	3
Cost-benefit analysis (II.C.3)	N/A
Implementation Progress (IP) (II.C.4)	3
DIMENSION D: SUSTAINABILITY	325
Financial sustainability (II.D.1)	3
Institutional sustainability and strengthening of capacities (II.D.2)	3
Ownership and sustainability of partnerships (II.D.3)	3
Environmental and social sustainability (II.D.4)	4
OVERALL PROJECT COMPLETION RATING (Satisfactory)	3.56

 \mathbf{S}

Annex 1: Acronyms and abbreviations

Acronym	Full name	
AfDB	African Development Bank	
ADF	African Development Fund	
CARLA	Climate Adaptation for Rural Livelihoods and Agriculture	
CCA	Climate Change Adaptation	
CSP	Country Strategy Paper	
DC	District Commissioner	
DESC	District Environment Sub Committee	
DoI	Department of Irrigation	
EAD	Environmental Affairs Department	
GEF	Global Environmental Facility	

GoM	Government of Malawi	
GVH	Group Village Headman	
ICSP	Interim Country Strategy Paper	
M&E	Monitoring and Evaluation	
MDGs	Millennium Development Goals	
MGDS	Malawi Growth and Development Strategy	
MoAIWD	Ministry of Agriculture, Irrigation and Water Development	
MTR	Mid-Term Review	
MWK	Malawi Kwacha	
O&M	Operation and maintenance	
PAR	Project Appraisal Report	
PCR	Project Completion Report	
PCU/PIU	Project Coordination Unit/Project Implementation Unit	
PSC	Project Steering Committee	
QPR	Quarterly Progress Report	
SCPMP	Smallholder Crop Production and Marketing	
TA	Technical Assistance	
TOT	Training of Trainers	
VDC	Village Development Committee	

Annex 2. List of Supervision Missions by the African Development Bank

No.	Type of Mission	Participants' Skills Mix	Start Date	End Date
1	Project Launch	Agricultural Economist,	16 th May,	18 th May, 2012
		Country Program Officer, ,	2012	
		Procurement Officer,		
		Financial Management		
		Specialist		
2	Supervision	Agricultural Economist,	29 th	7 th November,
		Country Program Officer, ,	October,	2012
		Procurement Officer,	2012	
		Financial Management		
		Specialist		
3	Supervision	Agricultural Economist,	27 th May	4 th June, 2013
		Country Program Officer, ,		
		Procurement Officer,		
		Financial Management		
		Specialist		
4	Supervision	Agricultural Economist,	7 th	18 th October,
		Country Program Officer, ,	October,	2013
		Procurement Officer,	20133	
		Financial Management		
		Specialist		
5	MTR	Agricultural Economist,	23 rd June,	4 th July, 2014
		Country Program Officer, ,	2014	
		Procurement Officer,		
		Financial Management		

		Specialist		
6	Supervision	Agricultural Economist,	3 rd	13 th November,
		Country Program Officer, ,	November,	2014
		Procurement Officer,	2014	
		Financial Management		
		Specialist		
7	Supervision	Agricultural Economist,	23 rd March	8 th April, 2015
		Country Program Officer, ,	2015	
		Procurement Officer,		
		Gender Officer, Financial		
		Management Specialist		
8	Supervision	Agricultural Economist,	20 th	27 th November,
		Country Program Officer, ,	November,	2015
		Procurement Officer,	2015	
		Financial Management		
		Specialist		
9	PCR	Agricultural Economist,	10 th	26 th October,
		Country Program Officer, ,	October,	2016
		Procurement Officer,	2016	
		Financial Management		
		Specialist		