Final Report

Terminal Evaluation – Implementing Urgent Adaptation Priorities through Strengthened Decentralized and National Development Plans- ADAPT PLAN

GEF Project ID: 5015 UNDP Project ID: 4958

Country:	Malawi
Region:	Africa
Focal Areas:	Climate Change
GEF Agency:	United Nations Development Programme (UNDP)
Executing Agencies:	Ministry of Natural Resources Energy and Mining
Consultant	Chaudhry Inayatullah with support of Ms. Wezzie Mtumbuka, Economist, Ministry of Finance, Economic Planning & Development

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PROJECT DETAILS:

Project Name:	**Implementing Urgent Adaptation Priorities through Strengthened Decentralized and National Development Plan [ADAPT PLAN]**
Project ID:	UNDP [PIMS #]: 4958 GEF Project ID: 5015
ATLAS Award ID	00081840 Project ID: 00090986
Country:	Malawi
Region:	Africa
Focal Area:	Climate Change (GEF-5)
Strategic Programs:	Objective 1: "Reduce vulnerability to the adverse impacts of climate change, including variability, at the local, national, regional and global level" Objective 2: "Increase adaptive capacity to respond to the impacts of climate change, including variability, at the local, national, regional and global level"
Funding Source:	GEF Trust Fund, UNDP, Government, and Community Contribution
Implementing Agency:	United Nations Development Programme
Implementation Modality:	National Implementation Modality (NIM)
Executing Agencies:	Ministry of Natural Resources, Energy and Mining; Environmental Affairs Department
Other Executing Partners	Ministry of Finance, Economic Planning, and Development; Nkhata Bay, Ntcheu and Zomba District Councils; Ministry of Agriculture, Irrigation & Water Development, Ministry of Local Government & Rural Development

PROJECT TIMELINES

Received by GEFF	1 August 2012
Concept Approved	23 August 2012
PIF Approval Date	21 March 2014
CEO Endorsement	23 October 2014
Project Document Signature Date	19 December 2014
Project Start Date	19 December 2014
Date Project Manager Hired	1 September 2015, 2nd Manager hired on 1 September 2016
Inception Workshop Date	18-19 May 2015
MTR Completion Date	November 7, 2017
MTR Consultant	Maria Onestini
Terminal Evaluation	September – November 2019
Planned Closing Date	31 December 2019

FINANCIALS

	At the time of Project Approval (US $)	**At End of Project (US $)**
Project Preparation Grant	15,500	
GEF Project Grant (1)	4,500,000	4,499,230
Co-financing Total(2)=(3+4+5)	4,161,341	6,647,552
GEF Agency Fees	855,000	
Government Co-financing (3)		5,180,939
Other identified at Formulation	2,400,000	
UNDP TRAC (4)	0	864,968
Community contribution (5)	0	601,645
Total Cost (1+2)	**USD 11,061,341**	**11,146,982**

Exchange Rate: I US $ = MWK 750

Acknowledgment

The consultant would like to acknowledge the information, interviews, feedback, and support provided by the stakeholders of the ADAPT PLAN Project, including the Project Team at the Project Management Unit, in particular, Ms. Ms. Shamiso Najira, Deputy Director and GEF Focal Person, Mr. Yusuf Mkungula, Project Manager, officials of the Ministry of Natural Resources, Environment and Mining, Environment Affairs Division, Ministry of Finance, Economic Planning and Development, Ministry of Local Government and Rural Development, and the District Councils of Ntcheu, Zomba and Nkhata Bay and local communities. The consultant expresses gratefulness for the facilitation and the contributions by the UNDP Country Office, in particular, Mr. Andrew Spezowka, Ms. Heather Maseko, Mr. Nyrienda Sothini, Ben Twinimugiswa as well as the UNDP/GEF Regional Technical Advisor.

Special thanks are due to Ms. Wezzie Mtumbuka, Economist, Ministry of Finance, Economic Planning and Development, for her valuable contributions during the field visits and conducting Key Informant Interviews.

Degraded mountain in Zomba (not project site) adjacent to the project site

Rehabilitated mountain in Muhiriri Village, TA M'Biza, Zomba

Farmers at Irrigation Scheme at Nanyere Village, TA Mwambo, Zomba

We will never give up.....
Tomato and maize grower at Nanyere Village, Zomba

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Project Title:	Development of Urgent Adaptation Priorities through Strengthened Decentralized and National Development Plan (ADAPT PLAN)		
UNDP Project ID (PIMS #):	4958	**PIF Approval Date:**	21 March 2014
GEF Project ID (PMIS #):	5015	**CEO Endorsement Date:**	17 Dec. 2015
ATLAS Award ID:	00081840	**Project Document (ProDoc) Signature Date (date project began):**	19 Dec. 2014
Country(ies):	Malawi	**Date project manager hired:**	1 Sept. 2015, 2nd Manager on 1 Sept. 2016
Region:	Africa	**Inception Workshop date:**	18-19 May 2015
Focal Area:	Climate Change	**Midterm Completion date:**	17 Nov. 2017
GEF-5 Strategic Programs:	Support Enabling Activities and Capacity Development	**Planned closing date:**	31 Dec. 2019
Trust Fund:	GEF TF	**If revised, proposed closing date:**	31 Dec. 2019
Executing Agency:	Ministry of Natural Resources, Energy and Mining (Environment Affairs Department)		
Other execution partners:	Ministry of Finance, Economic Planning & Development; Ministry of Agriculture, Irrigation and Water Development; and Ministry of Local Government & Development		

Financials	**At the time of Project Approval (US $)**	**At End of Project (US $)**
Project Preparation Grant		
GEF Project Grant	4,500,000	4,499,230
Co-Financing Total	4,161,341	6,647,552
GEF Agency Fees	855,000	
Other identified at formulation	2,400,000	
Amount Realized		
UNDP TRAC	0	864,968
Community Contribution	0	601,645
PROJECT TOTAL COSTS	**11,061,341**	**11,146,782**

Project Description

The effects of climate change are fast unfolding in Malawi which is evident in the form of an increase in frequency and intensity of extreme events. According to Notre-Dame Global Adaptation Initiative (ND-GAIN), Malawi ranks 156 (score 35.7) on the Country Index. The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. For comparison purposes, Norway ranks on the top of the list with score 76.1, and Somalia ranks 181 with score 20.3. On the Vulnerability Index, Malawi ranks 151 (score 0.55). On the Readiness Index Malawi ranks 164 (score

0.264)- for comparison purposes New Zealand ranks first (score 0.81) and Somalia ranks 191 (score 0.083)[1]. Results from the Malawi vulnerability assessment climate analysis conducted by USAID in 2013 also underscored the variability of Malawi's climate, which is strongly influenced by at least three powerful external drivers: the El Niño Southern Oscillation (ENSO), an Indo-Pacific phenomenon that modulates circulation; the Indian Ocean Dipole (IOD), an equatorial pattern that affects rainfall; and the Subtropical Indian Ocean Dipole (SIOD), which may be linked to higher than normal rainfall in southern Africa. The uncertainties introduced by these strong external atmospheric drivers, along with uncertainties in future greenhouse gas emissions, contribute to considerable uncertainty in climate projections for the region and greatly restrict the ability to isolate climate change from normal climate variability[2].

Ninety percent of the population in Malawi is dependent on rain-fed agriculture, 60 percent of whom are food insecure on a year-round-basis[3]. Climate sensitive rain-fed agriculture is a major contributor to the national gross domestic and foreign exchange earnings and supports the livelihoods of over 80 percent of Malawians who are involved in primary and secondary agricultural activities. Climate extremes and weather events severely erode the resilience and adaptive capacity of individuals and communities via declining yields and food insecurity. The UN Country Assessment, which was undertaken in 2010, states that the geographical coverage of floods and drought has increased: before 2001 only 9 districts in Malawi were classified as flood-prone; and by 2010, 14 districts were classified as flood-prone.

In addition to floods, in the last few decades, Malawi has experienced droughts during the 1978/79, 1981/82, 1991/92 and 1993/94 crop growing seasons. In 2015 there were both drought and floods, and a year later further drought. Maize production declined by 30% in 2015, then an additional 12% in 2016, when 6.7million (out of a country of 18.1 million) needed food aid. In 2018 Lake Chilwa, in south-east Malawi, dried up completely. Residents of Chisi Island, in the middle of the lake, no longer needed canoes to reach the mainland. Around Lake Chilwa, the drying of the lake forced 7,000 fishermen to seek work elsewhere, mostly on Lake Malawi, which covers a fifth of the country[4].

Malawi's narrow economic base, with high dependence on rain-fed agriculture, limited agro-processing industries, and reliance on biomass for household energy, means the country is highly vulnerable to the adverse impacts of climate change and extreme weather events.

The ADAPT Plan project started on 19 December 2014, the Inception Workshop was held from 18-19 May 2015, and it is planned to close on 31 December 2019. It was implemented by the Environment Affairs Department (EAD) under NIM modality and supported three District Councils (Ntcheu, Zomba and Nkhata Bay) in decentralized adaptation. It has three outcomes, focusing on macro- and micro level interventions and capacity building of departments. It was highly timely to assist the government in reviewing its development plans at the national, district and village level to mainstream climate change adaptation (CCA) in the development process. Secondly, it demonstrated CCA technologies to the communities and assisted them in diversification and improvement of their livelihoods.

Purpose and Methodology

The Terminal Evaluation (TE) aims to demonstrate accountability for the expenditures to date and the associated delivery of outputs and assess relevance, effectiveness, efficiency, country ownership, mainstreaming, sustainability, impacts, lessons learned and future recommendations to ensure sustainability and effective and efficient future programming. The Terms of Reference (ToRs) for the TE are spelled out in greater detail in Annex 1.

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[1] https://ec.europa.eu/knowledge4policy/online-resource/notre-dame-global-adaptation-initiative-nd-gain-country-index_en *The vulnerability Index takes into account 2 indicators each of the health, food, ecosystems*, habitat, water and infrastructure indicators, whereas readiness index takes into account 4 social, 4 governance and 1 economic indicator. The ND-GAIN Index is a composite of vulnerability and readiness indicators.

[2] https://www.climatelinks.org/sites/default/files/asset/document/Malawi%2520VAFinal%2520Report_12Sep13_FINAL.pdf

[3] https://www.trocaire.org/sites/default/files/resources/policy/feeling-the-heat-2015-1.pdf

[4] https://www.economist.com/middle-east-and-africa/2019/09/16/climate-change-is-making-it-harder-to-reduce-poverty-in-malawi

The TE was conducted by an International Consultant with the support of an Economist from the Ministry of Finance, Economic Planning & Development (MFEPD). The TE focused on reviewing project documents and interacting with the Project's key stakeholders, including the GEF Implementing Agency UNDP, the Executing Agency Ministry of Natural Resources, Energy and Mining (MNREM), Environment Affairs Division (EAD), Project Management Unit (PMU), the District Councils of Zomba, Nkhata Bay and Ntcheu, government partners [Ministry of Agriculture, Irrigation and Water Development (MAIWD), Ministry of Local Government and Rural Development (MLGRD), MFEPD, the target groups, and beneficiaries. A field mission was conducted from 4 to 18 November 2019 to interview officials of the central government and district sectoral experts, observe field sites and conduct Focus Group Discussions (FGDs) with the local communities.

Project Progress Summary

Adaptation to climate change at the start of the project was in abstract form. Achievement of results has varied across different outcomes but given the design of the project where results were interlinked from one outcome to another, there has been tremendous progress in outcome 2 with more than 100% achievement, followed by outcome 3 and outcome 1. The project contributed both at the macro- and micro-level (outcome 3). At the macro-level, the project contributed to the development of district plans, Malawi Growth and Development Strategy III (MGDS III), National Resilience Strategy (NRS), National Climate Change Fund (NCCF), and expenditure review on climate change and its indicators. The contribution was in the form of identifying indicators and entry points for adaptation to climate change, and revision of planning tools for appraising projects to include CCA indicators. The public expenditure reviews strengthened the level of analysis and negotiating power to policymakers by providing evidence and demonstrating the importance of raising domestic financing to address the impacts of climate change at the national level. The expert working group on adaptation to climate change was very instrumental in localizing adaptation, identifying metrics for measuring adaptation to climate change and validating technical studies which led to tools that were used as entry points for mainstreaming CCA in planning.

The project undertook Community Based Resilience Analysis (COBRA) which helped communities to develop community adaptations plans which led to the development of district adaptation plans. Based on these tools, the project reached to 8,465 (60% female- and 40% male-headed) households, in terms of demonstrating adaptation, against at end of project target of 5,800 households. The revised DPPs and the capacity that has been built up by the project in terms of trained duty bearers and poor community members in CCA will lead to further scaling up. Under Outcome 3, the project has enhanced access to weather and climate information, reaching out to 90% of the target population in the districts through different media- mainly extension workers and radio.

Under Outcome 2, "diversification and improved livelihoods of vulnerable groups", the project reached to 8,465 households directly and 15,682 indirectly (total 24,147 households) and demonstrated various adaptation techniques. The achievement are given in **Annex 7-Table 1**. The project worked in 13 TAs and covered 101 villages and covered 5,084 female households and 3,381 male head households, total 8,465). The total number of 88 Savings & Loans groups with a membership of 2,328 members (1,622 females) were organized/made functional. The project assisted seven groups to register with the Ministry of Industry, Trade and Tourism (MITT) to get registered in the form of cooperatives benefitting 1,225 members (males 553, females 840). These community structures ensure sustainability.

Highly lauded activity of the project was irrigation schemes (gravity flow in Nkhata Bay and boreholes operated with the solar power system in other districts) and demonstrated irrigated agriculture on 145 ha, benefitting 695 female-headed households and 370 male-headed households. The irrigated agriculture is a lifeline in high drought-stricken areas, e.g., Ntcheu district. The irrigated agriculture enabled the farmers to grow more than one crop per year and grow high value and highly nutritious vegetables. The project was instrumental in developing 35 fish ponds, benefitting 367 female- and 354 male-headed households. The impact of this intervention is documented in the **Section on Impact (Section 3.3.7).** The other most important activity was the drilling of boreholes and the installation of water pumps for the supply of drinking water. The project installed 36 new water pumps benefitting 10,249 households of which 6,070 are female- and 4,179 are male-headed.

The other highly lauded activity was the support to apiculture. The project organized 35 beekeeping groups and provided 585 beehives along with necessary equipment and protective clothing and training. The female members in the beekeeping groups are 400. So far, the community has produced 8,562 kg of honey. Besides honey, the bees also provide pollination services, which always remain un-documented. Due to cross-pollination, the crop, fruit and vegetable production is increased from 50% to 100%.

In Nkhata Bay, the project assisted 30 banana groups with total membership of 600, of which 200 are female-headed households. So far, the community has planted banana suckers on 2,000 ha. The project assisted communities to plant improved varieties of citrus and mango and so far 9,956 seedlings of citrus and 5,364 seedlings of mango have been planted. Likewise, the project assisted the communities to raise tree nurseries and sell seedlings to farmers. In this way, the project has raised 1.3 million tree saplings and has planted 957,074 saplings. The local communities are self-conserving the replanted areas and prohibiting grazing in planted areas at the communal level. The estimated survival rates of trees planted in the districts are: Nkhata Bay (673%), Ntcheu (69%) and Zomba (71.5%). The survival rates are for all the trees planted during the past 3-4 years. The survival rates for the trees planted during 2019 are as follows: Nkhata Bay (94%), Ntcheu (90%) and Zomba (92%). The survival rates are on the higher side because the trees have been planted recently and Malawi is in rainy season at present, but the rates may reduce as the season changes to dry.

The livestock sector plays an important role in household food security and animals are considered banks of the poor farmers. The project organized 46 livestock groups, benefitting 1,186 households, of which 804 were females. Likewise, in Nkhata Bay, the project provided 2,357 broilers and material for constructing a poultry-shed, and now in Nkhata Bay, a group has been registered as a cooperative and after a period of about two years, the members are expecting a dividend of MWK 150,000 in December 2019.

The break-down of all these interventions is given in **Annex 7-Table 1**. Unfortunately, the project did not determine the increase in Community Resilience Index as well as calculate the monetary benefits occurring to communities, however, based on the community consultations, several impacts in monetary terms and asset appreciation were recorded which are given in **Section 3.3.7.**

In terms of financials, the project delivered 99.98% GEF funds (expenditure of US $ 4,499,239 against total budget Us $ 4.5 million), UNDP TRAC 98% (expenditure of US $ 864,968 vs US $ 882,287 total budget). The overall delivery was 99.98%. The GoM co-financing and community contribution realized was US $ 5,180,939 and US $ 6.1,645, respectively. In terms of GoM co-financing, the project realized US $ 5,180,939 against US $ 4,161,341 committed at the time of CEO Endorsement, which is up by 24.5%

Evaluation Ratings

The evaluation ratings are presented in Table 1.

Table 1. TE ratings and achievements summary table

Measure	TE Rating	Description summary
Relevance	**Relevant**	The Project was conceptualized under the GEF 5 Climate Change Focal Area. The strategy addresses Objective 1 and 2 and deal with reducing vulnerability and adaptation. The Project design remains consistent with GEF priorities and is explicitly mentioned in the UNDP Country Programme Document (CPD) and UNDAF (UN Development Assistant Framework). Similarly, the Project remains highly relevant in the context of national priorities, including the Government of Malawi's Vision 2020, National Adaptation Plan Action (NAPA), Malawi National Resilience Strategy (2018-2030) and UNCCD. The Project objective was to support the Government of Malawi (GoM) in mainstreaming urgent climate change adaptation through decentralized arrangements in districts Ntcheu, Zomba and Nkhata Bay. The project targeted vulnerable 5,800 households to demonstrate CCA practices and improve and diversify livelihoods through agricultural and non-agricultural practices. The

Measure	TE Rating	Description summary
		project aimed to achieve its objective through three closely interconnected and mutually reinforcing Outcomes. Outcome 1 focused on strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level, Outcome 2 dealt with strengthened and diversified livelihoods of vulnerable groups, while Outcome 3 targeted the mainstreaming adaptation in broader frameworks at the country level and integrated vulnerable areas. The project matches the priorities of GoM and the urgent needs of communities.
Progress towards results	Objective achievement rating: **Highly satisfactory**	For most impact indicators, end-of-project targets were fully achieved. The project produced 10 knowledge products (strategies and plans), exceeded the target under outcome 2 and reached to 8,465 vulnerable households leading to visible increase in their income levels, trained 150 duty bearers in climate change costing/budgeting/expenditure review, CCA and developed 3 District Development Plans (DPPs) and assisted in formulation of MGDS III which identifies projects and budget for mainstreaming CCA in future.
	Outcome 1 achievement rating: **Highly satisfactory**	The project took a number of initiatives in this regard, which are: ▪ Trained district staff in CCA technologies, gender mainstreaming, climate change budgeting and expenditure analysis, weather forecasting and preparation of the state of the environment and outlook report ▪ The project assisted in the preparation of DDPs, of which Zomba DPP is finalized and others are in draft form. The Zomba DPP identifies the priority areas, projects along with estimated cost and funding gaps. This is a very good advocacy document to convince the donors for enhanced financing. ▪ The project assisted in COBRA in all the programme districts and developed Village Development Plans (VDPs). ▪ A sample plan of Wanyemba village, TA Champiti was reviewed and found to be interesting. It identifies the issues in the village, priority interventions and estimated costs. ▪ CCA expenditures reviews at the district levels were conducted which provides the basis for an increased allocation. The project conducted training needs assessment, baseline survey on CCA in the programme districts and provided training to 30 national and 120 district staff in various themes (81 males, 69 females, total = 150).
	Outcome 2 achievement rating: **Highly satisfactory**	The project assisted 8,465 against a target of 5,800 households mentioned in the Project Document (ProDoc). The breakdown of various adaptation technologies transferred in programme districts is given in Annex 7- Table 1. Notably, the project covered 13 TAs, activated/organized 80 Savings and Loan Groups, got 7 cooperatives registered with the MITT and implemented 10 irrigation schemes covering an area of 145 ha, organized 35 beekeeping groups, planted nearly one million tree saplings, installed 36 water pumps (boreholes) benefiting 10, 249 households and organized 46 livestock groups. The interventions have led to an increase in cropping intensity and doubling the household income and enhancement of agro-biodiversity. Most of the community schemes are self-sustainable. The project engaged the Department of Climate Change and Meteorological Services (DCCMS) which worked with the MAIWD to prepare weather-based agricultural forecasts at 1-day and 5-day interval which provided awareness and use of climate information. The medium of outreach was mainly the extension workers and community radio programmes. In this way, the project reached to almost 90% of the population in the programme districts. The project is collaborating with a GCF funded M-Climes initiative in supporting the dissemination of weather forecast information through radio spot messages and phone SMS and community meetings.
	Outcome 3 achievement	The achievements of the project in mainstreaming adaptation in broader development frameworks at country-level in targeted vulnerable areas are mentioned under the achievements of development objectives. Clearly, the CCA

Measure	TE Rating	Description summary
	rating: **Highly satisfactory**	has been included in the MGDS III and DPPs, and proper projects along with estimated budgets have been identified. The M&E frameworks for monitoring CCA in all the planning documents are well documented. The increased capacity to CCA is measured through capacity building- trained staff in CCA at the national and district level and, trained communities in CCA, and organizations of various groups to implement CCA technologies and provision of appropriate budget. The project provided training to 150 staff of national and district levels (81 males and 69 females) in climate risk assessment, COBRA, expenditure analysis and CCA and preparation of plans. These staff members are fully equipped to streamline CCA in the district and national plans and policies. The project closely worked with EAD, MFEPD, MAIWD, DCCMS and LDF and the staff of the programme districts. It is anticipated that these departments and their staff will ensure CCA in future programmes.
Project Effectiveness	**Highly satisfactory**	The project fully achieved its targets by its closure in terms of technical and financial results. As mentioned earlier, the project exceeded expectations and reached to 8,465 households against a target of 5,800 as per ProDoc. It established six Adaptation Learning Centres in the districts, which would serve as a platform for communities to get together and collectively solve their problems. The project supported the GoM in the preparation of MGDS III, three district plans, conducting expenditure surveys on climate change and streamlining CCA in plans and policies for the future. The capacity of local communities was developed by organizing them in the form of groups, cooperatives and Savings & Loan schemes. The schemes implemented at the local level are financially self-sustainable as the communities have imposed membership fees and user charges to cover the operations and maintenance costs. All the schemes are yielding dividends to the farmers. Work planning was realistic in all project years, with normal deliveries during the last two years. The overall financial delivery of the project was 86%- GEF delivery 91%. The government co-financing in the form of staff cost, provision of office space and vehicles and parallel funds for various schemes in Nkhata Bay, Ntcheu and Zomba was the US $ 5,180,939 and that of community contribution was US $ 601,645. The community contribution was in the form of the provision of land and labour. Monitoring and evaluation systems were reasonably well, however, it required strengthening at the district levels. The project did not document the impact in terms of increase of household income, however, a survey is planned in 2020 to document the impact and changes in Resilience Index of participating communities. The Project's stakeholder engagement plan was well written, and it was implemented in letter and spirit and the national ministries and district governments proactively participated. Field activities were implemented by the sectoral experts and extension workers and local communities. The contractors provided civil works for the installation of the solar system and the construction of Adaptation Learning Centres. Where capacity was not available, the project engaged consultants/consultant firms to undertake special studies. Reporting was carried out in a timely manner, but PIRs did not aggregate data at the national level and adaptive management changes were not always reported, though these were mentioned in the Field Visit reports. The Project communicated its objectives and achievements using various knowledge products/seminar/advocacy meetings, but no material was found in the local language. The project success stories were available on the internet and Reliefweb but the project website was not developed.
Project Efficiency	**Highly satisfactory**	The NIM modality and strategy of building and utilizing capacities at the district level proved to be cost-effective and it promoted country ownership. The project

Measure	TE Rating	Description summary
		undertook adaptive actions to achieve the results, e.g., it recruited District Coordinators at the mid-point of project when it was realized that the coordination and implementation is not at an acceptable level; revisiting water supply schemes and increased the depth of boreholes to have increased water supply; and diverted resources from one group to another when it was realized that the implementation is extremely slow and and the resources were misused by the chieftain. The accounting and audit system was fully in place, and the corrective actions were taken on audit observations. The progress reports were produced timely but lacked computations at the national levels and adaptive management actions were not mentioned. The project implementation was cost-effective as the project surpassed the targets set in the ProDoc. Initially, the release of quarterly advances was delayed due to lack of skills of the district accounting staff and lengthy procedures which delayed procurement but with the recruitment of District Coordinators, it improved. The co-financing as planned was almost realized. A baseline was conducted during the 3rd year of the project to form the basis for the results-based framework. The project engaged all the stakeholders as planned, however, the NGOs were not involved but local capacity at the community level was fully utilized. The project supported south-south cooperation. Implementation of activities by sectoral experts at the district level proved to be very cost-effective and promoted country ownership. The disaster-affected communities were more eager to contribute resources and implement activities. Besides ensuring food security, the community priority was to construct climate-resilient houses and support children's education.
Project M&E	**Moderately satisfactory**	The log frame in ProDoc was well designed and thought out and clearly establishes linkages with the outcomes and indicators of the Adaptation Monitoring and Assessment Tool (AMAT). However, these were not elaborated in the ProDoc which caused confusion to the reader. The MTR was conducted in time, and based on the recommendations the project moved from an array of small activities to transformative, big impact activities. The adaptive capacity interventions in outcome 1 were wound up and more than 75% of the funds were allocated to community-based interventions. Neither the ProDoc mentions conducting an impact study on various livelihood activities, nor the project documented the economic benefits as a result of project activities, though these are highly visible. An end-line survey is planned in 2020 to study the impact and improvement in Community Resilient Index.
Sustainability	**Likely**	At the community level, all the interventions are financially self-sustainable as the community is replicating at their own, and for the maintenance of irrigation schemes and water pumps the community has imposed membership fees and user charges. Further, the community is selling electricity for charging of mobile phones and other small household equipment and the proceed is being used to pay for the salary of watchman and covering other maintenance costs. The fisheries, honey beekeeping, goats, piggery and poultry groups, after taking dividends are keeping some income for the maintenance and replication of activities. Since all the interventions are implemented by groups and not individuals, various sub-committees have been formed within a group to keep up social cohesion and resolve issues mutually, hence there is no socio-economic or institutional risk. Further, as the groups are maturing these are getting themselves registered with the MITT to protect members' rights. The Savings and Loan Schemes are in operation which provides immediate loans to the members on low-interest rates and easy terms of repayment. There is no environmental risk to sustainability as all the interventions are environment-friendly and with the increase in cropping intensity and beekeeping the agricultural biodiversity is being enhanced. The animal dung is being used to improve soil health.

Measure	TE Rating	Description summary
		At the national level, MGDS III and DPPs have been developed and a core team of 150 duty bearers are trained at the national and district level to streamline CCA in future programmes.
Project Impact	**Significant**	At the community level, the project has demonstrated irrigated agriculture due to which the cropping intensity has been doubled and the cost of land and rent has been increased. This has addressed the issues of food and nutrition security. The communities are using the additional income earned for building climate-resilient houses and payment of school fees of their children. The income generation activities have led to gender mainstreaming, reduction in GBV, women's economic empowerment and enhanced social cohesion. All the income generation schemes are financially self-sustainable. Several cases of increase in income of participating communities are mentioned in **Section 3.3.7**. At the national level, the project has produced several planning and advocacy documents which will enable to mobilize more funds for CCA and trained duty bearers in various departments at the national and district level are available to develop and implement new projects and programmes. The only unintended outcome that may arise in the future could be the promotion of GMO maize and pesticides by the private sector as the irrigated agriculture will increase demand of seed and some pests may need the use of pesticides for their control. The trained staff at the district level should be able to provide them with guidance on proper seed selection and techniques of integrated pest management.

Summary of conclusions

Malawi being a predominantly agriculture country is exposed to food and nutrition security due to crop failures because of frequently occurring floods and drought due to climate change. The most vulnerable people are the elderly, women and orphans in the programme districts. The majority of the people are still living in mud-walled and grass-thatched housing structures that are prone to fall during heavy rains and floods. The access to energy is extremely limited and 99% population is dependent on fuel-wood in rural areas and charcoal in urban areas. These are all the signs of a rapid rate of resource degradation and violent conflicts due to environmental degradation.

The ADAPT Plan project was implemented from 2015 to 2019 in districts Ntcheu, Zomba and Nkhata Bay. The project was implemented by the EAD (a department under the MNREM) under the NIM modality. All the sectoral and extension staff was provided by the District Councils, which reduced the staff cost considerably. Special studies were conducted by hiring consultants. The project has reached to 8,465 households directly as against a target of 5,800 set the in the project document. At the macro-level, the project facilitated streamlining CCA in national and district plans and produced 10 knowledge products and trained 150 duty bearers. These initiatives are highly useful for CCA advocacy and mainstreaming. At the household level, the project has significantly contributed to the increase in income at the household level and asset appreciation, which has led to women empowerment and reduction in GBV. For example, the cost and rent of land have been doubled due to irrigation schemes and the communities are growing nutritiously rich vegetables, fish and meat for consumption and sale in the cities. The rural markets are not yet developed; therefore, the supply of inputs and sale of products is cumbersome, which reduces profitability, and warrants input-output market development.

Recommendations

The TE recommendations are outlined below in Table 2, which aim at improving future programming and implementation.

Table 2. Terminal evaluation recommendations

#	Recommendation	Responsible
A	**Project Formulation**	
1	**Comprehensive Results-Based Management System** In future projects, clear targets at the output level should also be mentioned for various stages of the project implementation, and outcome and indicators to which the projects are feeding at the GEF/AMAT level should also be narrated in the ProDoc for effective and accountable monitoring.	UNDP, GoM
2	**Flexibility in Project Design and Focus on Micro- and Macro – Linkages** As in this project, in future programming a major component of the project should be targeted to increase household income. Further, the project design should be flexible enough to accommodate activities that are highly essential immediately after the disasters to help the communities. The focus on policy research and advocacy should also be there to scale up the proven interventions.	UNDP, GoM
3	**Support to Decentralization.** The NIM modality and engagement of GoM staff should be followed in future projects with the following changes: 3a. In each District, a District Coordinator on project payroll must be engaged from the very beginning for coordination, oversight on the use of finances by the sectoral staff and timely production of results. 3b. In each district, an M&E Officer should also be hired on project payroll to monitor the project activities and take corrective actions and timely production of well- informed reports. The M&E Officers should be particularly tasked to document the impacts. 3c. In future projects, budgetary provision should be kept for the central GoM departments to further enhance ownership at the ministerial level as well as to strengthen oversight	UNDP, GoM, DCs
4	**Mobilization of Resources for Scaling Up** 4a. In future projects, various modalities of scaling up should be included in the design. For example, in future projects, UNDP after demonstration of best practices should put a condition of cash contribution of the GoM or communities for scaling up proven practices. 4b. The GoM and donors should consider pooling funds in the National Climate Change Fund for supporting groups and cooperatives on the pattern of GEF-SGP for scaling up proven interventions. 4c. In future projects, the project management should also look at other avenues to mobilize additional resources in the project area and link groups and cooperatives to other projects for accessing more funds for upscaling (parallel financing). This should particularly be promoted by the District Governments. 4d. In future projects, the projects should also consider supporting some well-off beneficiaries on parallel financing basis which will contribute to enhancing employability and national economy.	UNDP, DCs, GoM, NCCF
B	**Project Implementation**	
5	**Training of Finance and Admin Assistants** 5a. To avoid delays in the release of advances, UNDP should provide sufficient training to the accounting staff in District Councils to follow UNDP procedures, followed by refresher sessions to prepare proper advance requests.	UNDP

#	Recommendation	Responsible
	5b. To avoid delays in the release of advance requests, the GoM should consider curtailing its channels (assignment accounts) while transferring funds to the District Councils.	
C	**Technical**	
6	**Engagement of Communities in Participatory Monitoring and Reporting** The communities should be trained in participatory monitoring and reporting, which will help to increase accountability of local extension staff. Further, the projects should identify and engage go-getters who can help in replication and upscaling.	GoM, UNDP, DCs
7	**Watershed Management and Promotion of other Water-Lifting Schemes** 7a. Irrigation requires heavy initial capital investment and programmes should consider allocating adequate funds at the planning and feasibility stage. For drying up irrigation schemes, catchment conservations through plantation and construction of check-dams should be one of the key interventions. 7b. The TA Mbwana, district Nkhata Bay is a coastal area of Lake Malawi, so the groundwater level is not so deep and strong winds blow in the area. Animal driven dug-wells or wind-mill water lifting schemes should be encouraged in this and other similar areas which will be more cost-effective than the solar power irrigation schemes.	GoM, MNREM, MAIWD, UNDP, DCs
8	**Accurate Weather Forecasting and Crop/livestock Insurance** 8a. The DCCM and MAIWD should work together to improve the weather and agricultural forecasting system and at the district level, the accurate forecasts should be released through radio and SMS services. 8b. Further, the concerned GoM department(s) should work with the private sector companies providing crop and livestock insurance as is happening in Uganda and Kenya. This will certainly help to minimize the miseries of communities.	DCCM, MAIWD
9	**Training of Local Artisans in Maintaining Solar Power Systems** In future projects, UNDP should consider investing in training of local artisans for the repair of the solar gadgets. It could become another trade of livelihood diversification.	UNDP, MAIWD, EAD
10	**Integrated Pest Management, use of Small Power Tillers/Draught Animals and Diversification of Bee Flora** 10a. The institutions and communities need to be sensitized and trained in adopting integrated pest management (IPM) and using pesticides only when the losses are likely to exceed the economic threshold levels. In future projects, farmers' training schools approach should be adopted. 10b. The MAIWD should immediately advise the scientists to study the resistance level in fall armyworm (Malawian strain) and test the efficacy of pesticides being used against it. The use of ineffective pesticides should be stopped and IPM promoted. 10c. Emphasis should be given to growing of flowering plants to provide flora to pollinators throughout the year. Multi-purpose tree species, like *Moringa olifera* and *Azadirachta indica.* Besides serving as a nectar source for pollinators, various high-value products could also be made from these species to diversify livelihoods.	DCCM, MAIWD, UNDP

#	Recommendation	Responsible
	10d. Ploughing by using draught animals or small power tillers should be promoted. This practice will reduce the workload of farmers and free their time for other productive activities.	
11	**Value Addition and Input-Output Market Development at Local Level** In future similar projects, the focus should be on value addition in various farm products at the farm gate and markets for input supply and sale of farm products be developed at the TA level. Particularly, the group marketing should be encouraged which could provide a leverage to the small-holders to fetch a better price of their products.	UNDP, EAD, DCs
12	**EC Material and Knowledge Management** In the future, it should be made mandatory for the projects to develop brochures, leaflets, short video-clips for widespread use in the programme districts. Likewise, every project should have a dedicated website on which the knowledge products developed by the project and related GoM and UNDP publications are available.	UNDP, EAD, DCs
13	**Successor Project** A successor project should be developed to scale up the proven practices with contributions from communities, GoM and other donors with a clear focus on enhancing productivity, value addition and agro-livestock market development; and to document the economic impacts of the interventions and improvement in Resilience Index of participating communities.	DCs, MAIWD, EAD, MNREM, UNDP

Iii ACRONYMS AND ABBREVIATION

AAP	Africa Adaptation Program
ACPC	Area Civil Protection Committee
ADC	Area Development Committee
ADRMO	Assistant Disaster Risk Management Officers
ADR	Assessment of Development Results
AEC	Area Executive Committee
AfDB	African Development Bank
AMAT	Adaptation Monitoring and Assessment Tool
APR/PIR	Annual Project Review/ Project Implementation Reports
A-SWAP	Malawi Agricultural Sector Wide Approach
AWP/QWP	Annual Work Plan / Quarterly Work Plan
BTOR	Back to Office Report
CADECOM	Catholic Development Commission in Malawi
CARLA	Climate Adaptation for Rural Livelihoods and Agriculture
CBO	Community-Based Organization
CC	Climate change
CCA	Climate Change Adaptation
CCIP	Climate Change Investment Plan
CEPA	Centre for Environmental Policy and Advocacy
CO	Country Office
COBRA	Community-Based Resilience Analysis
CPD	Country Programme Document
CPAP	Country Programme Action Plan
DCCMS	Department of Climate Change and Meteorological Services
DCT	District Coordinating Team
DDPs	District Development Plans
DEC	District Executive Committee
DESC	District Environment Sub-Committee
DFID	Department for International Development
DOI	Department of Irrigation
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAD	Environment Affairs Department
ECRP	Enhancing Community Resilience Programme
EDO	Environment District Officer
ENRM	Environment and Natural Resources
EO	Evaluation Office
FAO	Food and Agricultural Organization
FRIM	Forest Research Institute of Malawi
FGD	Focus Group Discussion
GBV	Gender Based Violence
GCM	Global Climate Model
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEF-SGP	GEF Small Grants Programme
GoM	Government of Malawi
Ha	Hectare
HACT	Harmonized Approach to Cash Transfer
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
IPM	Integrated Pest Management
INGO	International Non-Government Organization
ISRDP	Integrated Sustainable Rural Development Programme

KII	Key Informant Interview
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
LDF	Local Development Fund
LEAD	Leadership in Environment and Development
LPAC	Local Programme Appraisal Committee
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MAIWD	Ministry of Agriculture, Irrigation and Water Development
MFEPD	Ministry of Finance, Economic Planning, and Development
MLGRD	Ministry of Local Government and Rural Development
MITT	Ministry of Industry, Trade, and Tourism
MGDS	Malawi Growth and Development Strategy
MWK	Malawi Kwacha
MLOGSIP	Malawi Local Government Strengthening and Investment Plan
MNREM	Ministry of Natural Resources, Energy and Mining
MTR	Medium-Term Review
MoU	Memorandum of Understanding
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NCCP	National Climate Change Programme
ND-GAIN	Notre Dame Global Adaptation Initiative
NGO	Non-Government Organization
NIM	National Implementation Modality
NCCTC	National Climate Change Technical Committee
NRM	Natural Resource Management
PEI	Poverty and Environment Initiative
PIF	Project Identification Form
PIR	Project Information Report
PMU	Project Management Unit
PPG	Project Preparation Grant
PRODOC	Project Document
RBM	Results-Based Management
RCM	Regional Climate Model
RP	Responsible Party
RTA	Regional Technical Advisor
SADC	Southern Africa Development Community
SMART	Simple, Measurable, Attributable, Realistic and Trackable
SWAp	Sector Wide Approach
TE	Terminal Evaluation
ToR	Terms of Reference
TRAC	Target for Resource Assignment from the Core
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
VAP	Village Action Plan
VCA	Vulnerability and Capacity Assessment
VCPC	Village Civil Protection Committee
VDC	Village Development Committee
VNRMC	Village Natural Resources Management Committee

1 INTRODUCTION

1.1. Purpose of Terminal Evaluation and Objectives

This Terminal Evaluation (TE) was conducted by an International Consultant with the support of an Economist from MFEPD. The TE aims to demonstrate accountability for the expenditures to date and the associated delivery of outputs. It is spelled out in greater detail in the Terms of Reference (ToR) for the TE (Annex 1).

The objectives of the TE are to assess the achievement of project results and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE also reviewed the project's strategy and its risks to sustainability.

1.2. Scope and Methodology

The scope of the evaluation is to focus on outputs actually generated and funds actually disbursed until December 31, 2019, as per the documentation submitted to the consultant and implemented activities visible on the ground during the TE mission. The TE assessed four categories of project progress, (i) project strategy (relevance), (ii) progress towards results (effectiveness), (iii) project implementation and adaptive management (efficiency), (iv) impact and iv] sustainability, along with country ownership and mainstreaming.

The TE focused on interacting with the Project's key stakeholders, including the GEF Implementing Agency UNDP, the Executing Agency Ministry of Natural Resources, Environment and Mining (MNREM), Environment Affairs Division (EAD), Project Management Unit (PMU), the District Councils of Zomba, Nkhata Bay and Ntcheu, government partners, namely, Ministry of Agriculture, Irrigation and Water Development (MAIWD), Ministry of Local Government and Rural Development (MLGRD), MFEPD, the target groups, and beneficiaries. For more details on the stakeholders sampled, refer to 3.

1.3. TE Approach

The methodology and approach closely followed the UNDP Guidance for Conducting Evaluations of UNDP-Supported, GEF-Financed Projects[5]. The TE provides evidence-based information with a focus on credibility, reliability, and usefulness. The design of the TE methodology focused on an understanding of the political, socio-economic and cultural contexts of the project to (i) be able to interpret the attainment of results as a function of inputs, and (ii) to realize the limitations that affected impartiality, credibility and usefulness. A participatory and consultative evaluation approach was followed. The key elements of this methodology and approach are explained below.

1.4. Data sources and collection methods

The evaluation methodology followed a mixed-methods approach where possible, using a combination of quantitative and qualitative data. The information was cross-checked against several pieces of evidence before accepted as valid. Quantitative data provided an objective overview of the level of achieving project targets, whereas qualitative data largely provided causal explanations, why and how achievements were reached or not reached. Quantitative data was mostly collected as secondary data through document analysis and the District Councils, especially about co-financing and community contribution. The list of documents reviewed is given in Annex 4.

The qualitative data collection focused on gathering attitudes, beliefs, values, perceptions, behaviour, motivation, knowledge, and level of satisfaction of project stakeholders. Qualitative data was mostly collected as primary data applying a series of social research methods including semi-structured interviews, interviews

[5] *UNDP 2012. Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF –Financed Projects. UNDP-GEF Directorate. 53pp.*

with key informants (KIIs), Focus Group Discussions (FGDs) with beneficiaries and direct observation (accurate first-hand information on activities, processes, achievements, limitations, etc.). Qualitative data was also collected through document analysis as secondary data. It was ensured that the data collected is credible, reliable and useful. The consultant also used his own expert judgment to assess the credibility of information obtained and triangulated findings whenever possible.

The consultant visited various project sites in all three programme districts. The mission itinerary is given in Annex 2. Stratified purposive sampling was applied to select sites to be visited during the mission. The stratification within landscapes was carried out based on (i) project activity type, (ii] geographic representativeness and (iii) degree of implementation of activities- some sites where the communities were forthcoming and good results were obtained and some sites where implementation was slow because of one or the other reason.

The TE emphasized stakeholder engagement. The list of the full range of stakeholders was prepared, and priority rankings were assigned to each. All stakeholders in the high priority category and as many as possible in other categories were sampled to avoid bias arising from unheard perspectives. The TE emphasized on inclusivity and it paid special attention to identify and include the most vulnerable and disadvantaged among the target groups, especially the women. The list of persons interviewed is given in Annex 3.

At the start of the TE, the mission initially met with the UNDP CO as the Implementing Agency and the Project Reference Group in which the senior officials of the programme districts also participated. The Inception Report, particularly the methodology of evaluation, was presented to the Reference Group and its endorsement was obtained. Following this, the consultant met with the GEF Focal Point and exchanged ideas about the evaluation methodology and project achievements/lessons learned. Thereafter, the mission left for visiting communities and officials of the District Councils in programme districts. The remaining stakeholders were interviewed after completing the field mission. For details of the semi-structured interviews refer to **Error! Reference source not f ound.**.

For document analysis and qualitative data, NVivo software was used, where all the data was coded, classified and compiled for various sections of the report. Qualitative data was carefully triangulated against each other. In cases where different sources indicated contradictory or non-congruent findings, corroboration of the information was sought from further sources. Quantitative data, such as financial expenditures, staff numbers, etc., was broken down to the lowest level available, and subsequently aggregated to intermediate and project levels to facilitate meaningful overview. For analysis topics on which both, quantitative and qualitative data are available, quantitative data was used to identify general patterns, whereas qualitative data was used to further explain the background for these patterns. A systematic collation of data of various types and from different sources lead to a balanced and justified presentation of answers to the evaluation questions posed through the TE, which are referenced in **Error! Reference source not found.**.

The TE has reviewed the sustainability of the project results to identify possible risks and solutions. The mission validated the risks identified in the Project Document (ProDoc), Project Information Reports (PIRs,) and the Atlas Risk Log and identified whether the risk ratings are appropriate and up to date. Additionally, financial, socio-economic, environmental and institutional and governance framework risks to sustainability were also assessed.

Financial risks to sustainability were analysed in terms of the likelihood of financial and economic resources being unavailable once the GEF assistance ends. Socio-economic risks to sustainability was assessed in terms of their potential impacts that may jeopardize the sustainability of project outcomes. It also assessed whether the level of stakeholder ownership and awareness is sufficient to allow for project outcomes to be sustained. Finally, evaluation has documented whether lessons learned are being documented and shared through appropriate channels with stakeholders on a regular basis. Institutional Framework and Governance risks to sustainability were evaluated as far as they may affect the sustenance of project benefits. The TE specifically emphasized on the sustainability of platforms for collaboration. Environmental risks to sustainability were assessed in terms of the risks they pose for the sustenance of project outcomes.

The co-financing from the Government was calculated based on the data from the district offices, which included the time of staff deputed by the District Council for implementation of project activities, rent of office premises/vehicles, and funds provided by the District Councils on community schemes in the project Traditional Authorities (TAs) and other areas of districts. Likewise, the community contribution was calculated based on data provided by the communities and District Council staff in terms of the cost of land allocated for various activities and the cost of labour for implementing activities. Financial data from UNDP was obtained to calculate the funding provided by UNDP from TRAC.

1.5. Structure of the Terminal Evaluation Report

The preparation of the TE Report follows the guidelines for conducting TEs of UNDP-supported, GEF-financed projects. The Final Report is structured in the following chapters:

- Executive summary
- Introduction
- Project description and development context
- Findings, including (i) Project design, (ii) Project Implementation, (iii) Project Results (attainment of objectives, relevance, effectiveness, and efficiency, country ownership, mainstreaming, sustainability and impact), (iv) conclusions, recommendations and lessons)
- Annexes

1.6. Rating Scales

As per the Guidelines for Conducting Terminal Evaluations of UNDP-Supported, GEFF Finance Projects, ratings were assigned to project relevance (2 point scale), efficiency, effectiveness, objective, outcome and outcome indicators on 6 point scale; impact on 3 point scale and sustainability on 4 point scale.

1.7. Ethics/Seeking Informed Consent

The TE consultant strived to safeguard the rights and welfare of interview partners. The TE was conducted in a transparent manner and interview partners were informed about the purpose of the TE, the use, processing, and storage of the data, and measures are taken to safeguard their anonymity. The TE report ensured to avoid that individual opinions can be traced back to a particular respondent.

The TE team sought adequate representation of women and disadvantaged groups and encouraged their contributions and voicing of opinions. The signed evaluation consultant code of agreement form is given in Annex 9.

1.8. Audit Trail

Reviews and comments received on the draft MTR Final Report are documented in an audit trail document that forms a separate annex to the TE Final Report. The audit trail lists all comments received and the responses to these by the TE consultant. Relevant modifications resulting from the audit trail are included in the final version of the TE Final Report.

1.9. Limitations

The TE consultant judges that the information obtained was sufficiently representative and the only limitation was that of insufficient time. The project sites were widely spread, and a considerable time was spent in travel, however, the consultant was able to visit all the necessary sites and meet with important stakeholders.

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 Project Start and Duration

The project started on 19 December 2014 and it is planned to close on 31 December 2019. The project duration is thus 60 months 11 days. It was implemented in three districts, namely, Nkhatabay (Lweya-Limphasa valley area, covering seven TAs, namely Fukamalaza, Mankhambira, Mkumbira, Timbiri, Kabunduli, Mnyaluwanga Mbwana); Ntcheu (TA Mpando, Ganya, and Masasa) and Zomba district (TA Mwambo, Mbiza and Ngwelero), which are 'hots spots' from vulnerability and climate change point of view.

2.2 Problem that the Project Sought to Address

In Malawi, climate change is a threat to economic growth, long-term prosperity, as well as the livelihoods of an already vulnerable population. According to Notre-Dame Global Adaptation Initiative (ND-GAIN), on the Vulnerability Index, Malawi ranks 151 (score 0.55). On the Readiness Index Malawi ranks 164 (score 0.264)- comparative data for the top and bottom countries is: New Zealand ranking first (score 0.81) while Somalia ranking 191st position (score 0.083)[6]. On the Country Index, Malawi ranks 156th position (score 35.7)- comparative data for the top and bottom countries for overall Country Index is: Norway on the top of the list with score 76.1, and Somalia at the bottom ranking 181 with score 20.3. The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. The research summarised by Future Climate for Africa (FCA), a research consortium, points to two trends. The first is rising temperatures and the second variability in rainfall. By 2040 there may be more than 100 days a year above 30°C, compared with about ten today at present. The second conclusion is that while there may be a fewer rainy days in the future when it does rain, it is more likely to pour. This is a recipe for floods, droughts and shorter rainy seasons.

Ninety percent of the population of Malawi is dependent on rain-fed agriculture, 60 percent of whom are food insecure on a year-round-basis. Climate sensitive rain-fed agriculture is a major contributor to the national gross domestic and foreign exchange earnings and supports the livelihoods of over 80 percent of Malawians who are involved in primary and secondary agricultural activities. Climate extremes and weather events severely erode the resilience and adaptive capacity of individuals and communities via declining yields and food insecurity. Particularly the flood conditions, especially in the south of the country can result in food insecurity with significant impacts on the livelihoods of poor people in rural areas. More than 15 percent of the population were affected by floods in the 2012/13 rainy season. Apart from incremental change in temperature and precipitation, the trend in Malawi has also been an increase in weather-related disasters, with floods in the south (particularly in the Shire River valley and the low lying lakeshore areas of Lake Malawi, Lake Malombe and Lake Chilwa), as well as in the lower reaches of the Songwe River in the northern region. The UN Country Assessment 2010, states that the geographical coverage of floods and drought has increased: before 2001 only 9 districts in Malawi were classified as flood-prone; and by 2010, 14 districts were classified as flood-prone. Of 251 disasters occurring between 1940 and 2005, floods, hailstones, and winds represent 93%.

In addition to floods, in the last few decades, Malawi has experienced droughts during the 1978/79, 1981/82, 1991/92 and 1993/94 crop growing seasons. This sort of weather is already increasingly common. In 2015 there were both drought and floods, and a year later further drought. Maize production fell by 30% in 2015, then an additional 12% in 2016, when 6.7million (out of a country of 18.1 million) needed food aid. In 2018, Lake Chilwa, in south-east Malawi, dried up completely. Residents of Chisi Island, in the middle of the lake, no longer needed canoes to reach the mainland. In the Zomba district, the region that includes the lake and Kamwendo village, climate change has had profound effects on the economy. Maize yields have slumped as the onset of the rainy season has moved from early October to mid-November. Livestock farming has become harder with less water and feed. Around Lake Chilwa, the drying of the lake forced 7,000 fishermen to seek work elsewhere, mostly on Lake Malawi, which covers a fifth of the country[7]. The negative impacts of displacement of the population are several folds.

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[6] *https://ec.europa.eu/knowledge4policy/online-resource/notre-dame-global-adaptation-initiative-nd-gain-country-index_en The vulnerability Index takes into account 2 indicators each of the health, food, ecosystems, habitat, water and infrastructure indicators, whereas readiness index takes into account 4 social, 4 governance and 1 economic indicator. The ND-GAIN Index is a composite of vulnerability and readiness indicators.*

[7] *https://www.economist.com/middle-east-and-africa/2019/09/16/climate-change-is-making-it-harder-to-reduce-poverty-in-malawi*

In terms of costs, droughts and floods have caused irreversible and damaging effects on crop and livestock production in the affected areas. A recent evaluation of the impacts of the natural hazards using probabilistic risk analysis for Malawi and Mozambique reported that Malawi loses on average 4.6% of the maize production [nationally] each year due to droughts, and 12% to flooding in the southern region, where about one-third of Malawi's maize is grown. The percentage cover of forests has decreased from 41% in 1990 to 35% in 2008 (whilst anecdotal evidence from the Department of Forestry suggests an even higher rate of loss) – partly due to the fact that 99% of the population depend on solid fuels (fuelwood and charcoal) because – even when it is available – electricity is unaffordable. Unsustainable resource use costs Malawi US$191 million, or 5.3% of GDP every year. Increased climate variations experienced in the form of prolonged dry spells, droughts, floods, and temperature variability, have compounded the stress on the natural resource base, in turn negatively affecting the performance of sectors such as water and irrigation, agriculture, natural resources and energy, thereby aggravating poverty, especially for the already vulnerable population in marginal areas. In the past, the policies supporting natural resources exploitation and environmental management were neither well-coordinated nor effectively implemented.

Malawi's narrow economic base, with high dependence on rain-fed agriculture, limited agro-processing industries, and reliance on biomass for household energy, means the country is highly vulnerable to the adverse impacts of climate change and extreme weather events which will continue to trigger poverty shocks and reduce ability of the people to cope with climatic disasters. A World Bank study conducted in 2018 concluded that based on poverty headcount rates (percentage) measured at $ 1.90/day/capita, Malawi is the 6th poorest country in the world and its pace of poverty reduction has been very slow in comparison to its neighbours[8] (Fig. 2). A UNICEF study conducted in 2018, concluded that Malawians are facing multi-dimensional poverty. An estimated 20% of multi-dimensionally poor children aged 5-14 years are deprived in all three dimensions (education, housing and nutrition) simultaneously. The Venn diagram (Fig. 1) shows that 21% of multi-dimensionally poor children in this age category are deprived in both education and housing dimensions, 18% of them are deprived in both nutrition and housing, and, finally, 9% in both nutrition and education[9].

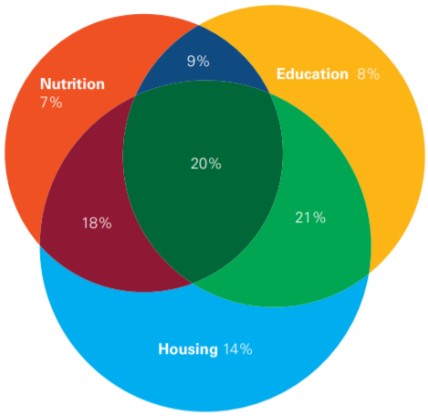

Figure 1. Overlap among nutrition, education, and housing dimensions (% of multi-dimensionally poor children (k=2)) 5-14 years (source Child Poverty in Malawi- footnote 9)

Despite some improvements in poverty levels, many Malawians remain in absolute poverty, or in danger of falling back into poverty, particularly in rural areas. The population structure is youthful, and the existence of a large number of HIV/AIDS orphans further exacerbates pressures on vulnerable households. Resource-poor rural communities often experience poor health conditions, leading to high rates of malnutrition, especially in children and the elderly, limiting their opportunities for work.

[8] https://elibrary.worldbank.org/doi/abs/10.1596/31131

[9] https://www.unicef.org/esaro/UNICEF-Malawi-2018-Child-Poverty-in-Malawi.pdf

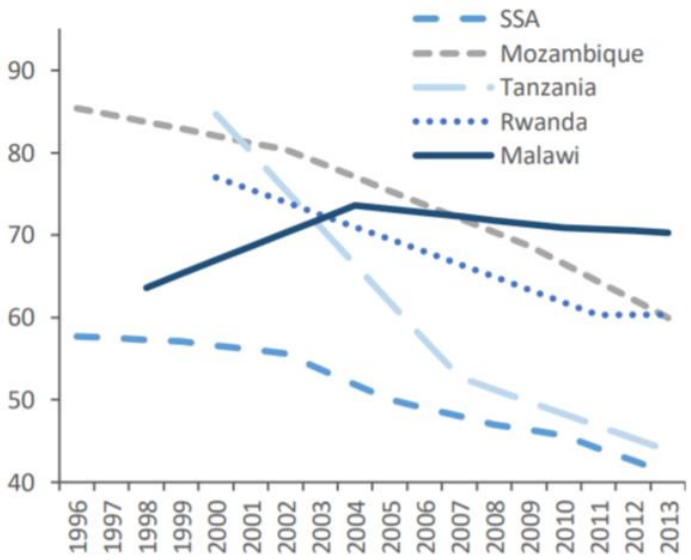

Figure 2. Poverty headcounts rates for 2013- projected using data from the National Accounts

The present project was highly timely to assist the government in reviewing its development plans at the national, district and village level to mainstream Climate Change Adaptation (CCA) in the development process. Secondly, it aimed to demonstrate the adaptation technologies to the communities and to assist them in diversification and improvement of their livelihoods as the well-off households could better cope with climatic shocks and disasters.

2.3 Immediate and Development Objectives of the Project

The goal of the project is for all government spending to contribute to resilience-building and adaptation in Malawi. ***The objective of the project is to" reduce the vulnerability of rural communities to the adverse impacts of climate variability and change in Malawi".***

The project objective is realized through three interlinked components that address barriers to the effective implementation of the policy and mainstreaming of adaptation into development planning, which are:

i. *Outcome 1*: Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level
ii. *Outcome 2*: Diversified and strengthened livelihoods for vulnerable people in target areas
iii. *Outcome 3*: Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas

The hierarchy of project objectives is given in Table 1.

Table 3. Hierarchy of project objective

Goal: All the government spending to contribute to resilience-building and adaptation in Malawi
Project objective: Reduce the vulnerability of rural communities to the adverse impacts of climate variability and change in Malawi.
Outcome 1: Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level
Output 1.1: A capacity development and incentive plan developed, and action plan or implementation created to support the effective deployment of roles and responsibilities

Output 1.2: Training materials developed, and the capacity of 60 district staff and sub-district project beneficiaries built on climate change integration in local development planning, policies and regulation, and environmental impact assessment
Output 1.3: Climate expenditure and institutional analysis carried out to determine CCA expenditures and CCA expenditure gaps within district-level budgets, supported by a training programme for relevant staff
Output 1.4: Participatory vulnerability and adaptation assessments carried out with project communities to prioritise community CCA measures from the perspective of livelihoods uplift.
Output 1.5: Community-level disaster risk reduction and climate change adaptation plans developed for 3 vulnerable districts
Output 1.6: CCA priorities integrated into the District Development Plans, district policies and legislation [by-laws, etc.] revised, and budgets and Local Council annual investment plans updated to effect the new plans and policies
Output 1.7: CCA vulnerability/CCA resilience indicators and data collection protocols agreed and added to district level databanks for planning purposes
Outcome 2: Diversified and strengthened livelihoods for vulnerable people in target areas
Output 2.1: Screening tools used by the Local Development Fund updated to incorporate adaptation to climate change
Output 2.2: Technical training delivered to communities in order to implement the CCA plans sustainably
Output 2.3: Community adaptation plans implemented
Output 2.4: Weather forecast information on short timescales disseminated to farmers in Ntcheu and Zomba
Outcome 3: Mainstreamed adaptation in broader development frameworks at the country level and integrated vulnerable areas
Output 3.1: Technical support programme for climate change adaptation costing work set up and made operational
Output 3.2: Training delivered to operationalize the Ministry of Finance budget preparation guidelines
Output 3.3: Training developed and rolled out to 100 technical staff and managers in 3 relevant ministries to facilitates the investment plan development process
Output 3.4: Economic costings of adaptation priorities developed by Sector Working Groups
Output 3.5: Spending plan [as outlined in the ministry strategies, Sector Working Group strategies/SWAps] in Agriculture, Water and Forestry adjusted to incorporate adaptation investment priorities
Output 3.6. Regulatory and fiscal incentives to stimulate climate risk reduction by the private sector [citizens, companies, etc.] identified and work plan or implementation agreed with the Government of Malawi for three priority sectors

2.4 Baseline Indicators Established

The project monitoring indicators at the baseline and end of project targets are given in Table 4.

Table 4. Project baseline indicators and end of project targets

	Indicator	Baseline	Targets End of Project
Project Objective **To strengthen consideration of climate change adaptation needs in decentralised and national development plans**	Adaptation actions implemented in national/sub-regional development frameworks (Outcome 1.1 and 2.2, AMAT 2.2.1)	Communities are highly vulnerable to climate change and adaptive capacity is not supported within the development planning framework at the national or local level	Development frameworks that include specific budgets for adaptation actions - 3 ministries and 3 District Development Plans (DDPs)
Outcome 1 **Strengthened awareness and**	Stakeholder-driven adaptations are specified and budgeted within District	Adaptation does not feature in appropriate development frameworks	At least 3 DDPs and 3 Village Action Plans

	Indicator	Baseline	Targets End of Project
ownership of adaptation and climate risk reduction processes at the local level	Development Plans and Village Actions Plans (Outcome 2.3 AMAT 2.3.1) Number and type of targeted institution with increased adaptive capacity to minimise exposure to climate variability. (Outcome 2.3 AMAT 2.3.1.1)	and thus is not owned by the population No baseline or end of project target given in the ProDoc	
Outcome 2 **Diversified and strengthened livelihoods and sources of income for vulnerable people in target areas**	Livelihoods of 5,800 people strengthened and made climate-resilient following training in, and tangible support for, risk-resilient livelihood activities according to their particular geographical locations (Outcome 1.2 and 1.3 AMAT 1.2.10 and 1.3.1.1) Relevant risk information disseminated to stakeholders (Outcome 2.3 AMAT 2.3.1.1)	Indicator score = 1 Climate risk information (1- day through to seasonal forecasts) exists and is communicated at national level but rarely makes it through to local level	Indicator score = 3 Risk reduction and awareness activities implemented for 5,800 households in Nkhata Bay, Ntcheu and Zomba: ▪ agricultural diversification, ▪ sustainable forest management, ▪ erosion control/sustainable land and water management, ▪ resilient livelihoods 70% of the 5,800 households regularly receiving climate risk information
Outcome 3 **Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas**	Number of development frameworks and sector strategies that include budget allocation targets for adaptation (Outcome 1.1 AMAT 1.1.1 and 1.1.1.1) Number and type of targeted institution with increased adaptive capacity to minimise exposure to climate variability (Outcome 1.1 AMAT 1.1.1 and 1.1.1.1)	Within the three priority sectors (forestry, water, and agriculture) adaptation is, to varying degrees, hinted at but not explicitly or comprehensively addressed, and nor are effective budgets allocated	3 sector strategies/ for water, forestry and agriculture and appropriately budgeted adaptation measures

2.5 Main Stakeholders

This project was initially conceived by the National Climate Change Technical Committee (NCCTC) and the development of the project involved extensive district level consultations with the three districts viz., Nkhata

Bay, Ntcheu and Zomba which were selected based on NAPA-identified vulnerable districts as well as at the recommendation of the relevant stakeholders at national level in the three relevant line ministries. The NCCTC was kept well-informed of the consultation process and implementation of the project. The main stakeholders identified for the project were:

1 ***Ministry of Natural Resources, Energy and Mining (MNREM):*** As the government-mandated lead on all climate change issues in Malawi, the MNREM is the Implementing Agency (IA) for the project, so accountable for project results. It is also the Responsible Party (RP) for Output 2.4. It comprises of seven departments, of which three departments (Environmental Affairs, Climate Change and Meteorological Services and Forestry) played key roles in the project formulation. Environmental Affairs Department (EAD) coordinated District Environmental Officers (DEOs), who are taking the operational lead at the district-level aspects of components 1 and 2; Department of Climate Change and Meteorological Services (DCCMS) is a key partner in the provision of forecast information under output 2.4, and the Department of Forestry is responsible for one of the three sectors chosen for integrating climate change in its planning.

2 ***Ministry of Finance, Economic Planning and Development (MFEPD):*** The MFEPD was an RP for component 3. The Ministry was a collaborator/beneficiary by virtue of modifying its existing environmental budgeting guidelines to include climate change adaptation.

3 ***Ministry of Agriculture, Irrigation and Water Development (MAIWD):*** The MAIWD was a collaborator/beneficiary and its Sector Wide Approach (SWAp) is one of the three sectors chosen for integrating climate change in its planning. The Departments of Water Development and Irrigation were collaborators/beneficiaries and the ministry strategy is one of the three sectors chosen for integrating climate change in its planning.

4 ***Ministry of Local Government and Rural Development (MLGRD):*** The MLGRD is the lead ministry for decentralization. Its role as a collaborator/beneficiary was overseeing and coordinating district level training and capacity building activities in order to ensure complementarity with other ongoing climate change training at the local level (as part of the technical support programme).

5 ***Local Development Fund (LDF):*** The LDF is the RP for Outcome 2 with the role of releasing funds to the district level in accordance with the newly developed adaptation indicators. The project has provided training to LDF staff, and to district M&E staff in conjunction with LDF staff regarding the use of adaptation indicators, updating project screening tools for LDF to integrate CCA, and gender in CCA budgeting.

6 ***District Councils (Nkhata Bay, Ntcheu and Zomba):*** The District Executive Councils were RPs for Outcome 2 and 3. These have screened their District Development Plans (DPPs) for adaptation opportunities (including consultation at sub-district level), introduced these in the next iteration, and incorporated appropriate adaptation indicators for M&E; and implemented the priority adaptation activities, as well as contributed to project-level M&E.

7 ***NGOs:*** As per ProDoc, in Ntcheu active NGOs include Concern Universal, Care International, CADECOM, Red Cross and NASFAM. In Nkhata Bay active NGOs include World Vision, Livingstonia Synod, Ripple Africa, the Wildlife and Environment Society of Malawi, Total Land Care and CADECOM. In Zomba active NGOs include Emmanuel International, World Vision, Save the Children, CADECOM, Malawi Red Cross and LEAD International. It was mentioned in ProDoc that a variety of these will be involved in the participatory vulnerability and adaptation assessments and supporting the implementation of tangible adaptation activities. During KIIs, it was reported that depending upon the needs identified and the relative strengths, the aforementioned mentioned NGOs were part of the participatory vulnerability and adaptation assessments that helped in incorporating findings and actions in district strategies and plans, however, PIRs do not clearly record their involvement.

8 ***Beneficiaries at Community Level:*** Whilst all residents in the three districts ultimately benefit from the project as a result of the integration of adaptation into the development plans, direct beneficiaries of tangible adaptation activities to support the implementation of Village Action Plans with integrated adaptation include those in the traditional authorities of Fukamalaza, Mankhambira, Mkumbira, Timbiri, Kabunduli and Mnyaluwanga in the Lweya-Limphasa valley area of Nkhata Bay (2,000 households); 2,000 households in the Chipusira catchment area in Ntcheu; and 1,800 households in the TAs of Mwambo and Ngwerero in Zomba, as per ProDoc.

2.6 Expected Results

The expected results at the end of the project, as per ProDoc, are as follows:

- Development of frameworks that include specific budgets for adaptation actions for the three key ministries (forest, irrigation, and water) and three District Development Plans
- At least three DDPs and three Village Action Plans developed to include climate-resilient practices
- Risk reduction and awareness activities implemented for 5,800 households in Nkhata Bay, Ntcheu and Zomba districts in the following themes:
    - agricultural diversification,
    - sustainable forest management,
    - erosion control/sustainable land and water management,
    - resilient livelihoods
- 70% of the 5,800 households regularly receiving climate risk information
- Three sector strategies- for water, forestry and agriculture developed and appropriately budgeted for adaptation measures

3. FINDINGS

3.1 Project Design / Formulation

The consultation process for project preparation was highly participatory and took place between June and October 2013. During this time, over 100 professionals, were engaged at national and district levels, as well as many community members in target locations. Stakeholders were primarily, but not exclusively, government staff. In addition to key bilateral meetings, the consultation process also involved participation in two meetings of the NCCTC at the national level, initial district level consultations plus a district level workshop, attended by representative teams from each selected district. Consultations were also held with target communities and local authorities during the Vulnerability and Capacity Assessment (VCA). The structure of this project document was presented and preliminary endorsement was accorded at the NCCTC meeting held on 16-17 October 2013.

The project Inception Workshop was held from 18 to 19 May 2015 at Lilongwe and the project was formally launched on 18 May 2015. The organization of the Inception Workshop was delayed due to the sudden sad demise of the GEF Country Focal Point, who was a very senior person and was the main force behind the present and several other projects. Another reason for the delay was due to non-availability of the GEF Regional Technical Advisor (GEF RTA). In this workshop 41 GoM, UNDP and programme district officials and GEF Regional Technical Advisor participated. During the workshop, project background, objectives, goals, outcomes, outputs, budget, Results and Resources Framework, annual work planning, UNDP financial and reporting procedures, UNDP-GEF monitoring and evaluation procedures and UNDP procurement and audit procedures were explained and discussed with the implementing partners. The district implementing officials at this point cautioned about the lengthy fund release and procurement processes.

3.1.1 Analysis of LFA/Results Framework

The project Results Framework clearly establishes the links of project with *UNDAF Outcome 1.3 (targeted population in selected districts benefit from effective management of environment, natural resources, climate*

change and disaster risk by 2016) and Country Programme Document (CPD) *Outcome Indicator 1 (proportion of land covered by forests and contributes in the Key Environment and Sustainable Development key result area.* The project contributes to the **GEF Strategic Objective 1** *(reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level)* and **Strategic Objective 2** *(increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level).* The **expected GEF outcomes** to which the project contributes to are:

- **Outcome 1.1:** Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas
- **Outcome 1.2**: Reduced vulnerability to climate change in development sectors
- **Outcome 1.3**: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas
- **Outcome 2.2**: Strengthened adaptive capacity to reduce risks to climate-induced economic losses
- **Outcome 2.3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level

The project interventions and the key results which have been obtained well contributed to the above mentioned UNDAF, CPD and GEF outcomes.

The project objective is linked to the Adaptation Measurement and Assessment Tool (AMAT) **AMAT Outcome 1.1** *(Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas)* and **Outcome 2.2** *(Strengthened adaptive capacity to reduce risks to climate-induced economic losses).* **The AMAT indicator to monitor the project identified is Indicator 2.2.1**. *(number of staff trained on technical adaptation themes (per theme) – (disaggregated by gender).* The results achieved against the project objective is given in **Annex 7- Table 1**. The AMAT score assigned to the achievement of the project objective is 3 (substantial training in practical application (e.g. vocational training))[10] on a scale of 1 to 5.

The **project Outcome 1** is linked to the **AMAT Outcome 2.3** *(strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level)* and **AMAT indicator 2.3.1** (*risk reduction and awareness activities introduced at the local level).* The results achieved against the project objective is given in Annex 7- Tale 1. The consultant reviewed the MGDS III and DPP and SMART indicators for CCA are given in these documents. The AMAT score assigned to awareness (based on answers of community members during FGDs) is 3 on a scale of 1-3 (Rank 1. No awareness level <50% correct; Rank 2. Moderate awareness level 50-75% correct; Rank 3. High awareness level >75% correct).

The project **Outcome 2** is linked with the **AMAT Outcome 1.2 and 1.3**. and the indicator for measuring is **AMAT Indicator 1.2.10**: % change in income generation in the targeted area given existing and projected climate change. The AMAT indicator for **measuring Outcome 1.3 is AMAT Indicator 1.3.1.1:** % of targeted households that have adopted resilient livelihoods under existing and projected climate change. The baseline AMAT score for measuring project Outcome 2 is 1, and the end project target was 3. The project has not been able to organize an end-line survey, however, based on the field observations and response of communities, the consultant ranks the score to 5 (on a scale 1-5)[11]- exceeding expectations as 8,465 households benefited from the project against a target of 5,800 households. The increase in income per household is documented in Section 3.3.7 on impacts.

The project **Outcome 3** is linked to **AMAT Outcome 1.1 and Indicators 1.1.1.1** (Development of frameworks that include specific budgets for adaptation actions. The baseline mentioned in the ProDoc was that forestry, water, and irrigation adaptation is variably mentioned and budgets are not effectively allocated. The end project target for the project was the preparation of three sector strategies for water, forestry and agriculture along with appropriate budgets. The three sector strategies were updated by incorporating CCA aspects so that they reflect

[10] The score for this indicator will have to be assigned based on the results of a conducted survey. The score ranges from 1 to 5. Rank 1. No access to livelihood assets; Rank 2. Poor access to livelihood assets; Rank 3. Moderated access to livelihood assets; Rank 4. Secure access to livelihood assets; and Rank 5. Very secure access to livelihood assets
[11] Same as mentioned under 4

on how district strategies and plans are tackling climate change in different programmes. **The updated strategies are given in MGDS III.**

Though the Results Framework (RF) has well documented the linkages of the project with UNDAF, CPD and GEF-Outcomes and AMAT (Adaptation Monitoring and Assessment Tool) outcomes and indicators developed by LDCF[12], the RF does not explicitly mention the indicators to monitor the progress which makes it difficult to follow through.

The output and activities statements are clearly given in the ProDoc but unfortunately no baseline, indicators to measure the outputs and targets are given in the ProDoc, which makes it difficult to the planning team to plan and set targets for itself and monitor.

Given the unexpected onset of climate events (droughts and floods), the crop and livestock insurance is gaining importance in many countries. The total agricultural and forestry insurance premium worldwide, in 2001 amounted to some US 4 6.5 billion. Of this amount, 70% is accounted for by crop and forestry products. Geographically these insurance premiums are concentrated in developed farming and forestry regions, i.e., North America, Europe, Australia and New Zealand. Latin America and Asia account for 4 percent each, Central/Eastern Europe 3% and Africa just 2%[13]. For example, in a move aimed at protecting farmers against bad weather, Uganda's Ministry of Agriculture Animal Industry and Fisheries (MAAIF) is set to roll out the National Agriculture Insurance Scheme that will shield all farmers from bad weather. Extending Agriculture Insurance to cover the whole country will encourage commercial banks to lend to the agricultural sector, given that the risk associated with agriculture will be mitigated through the Insurance Scheme. The objective of the scheme is to cushion farmers against losses arising from natural disasters- at the moment, 54,606 farmers[14]. In Kenya, the livestock insurance has been designed by the International Livestock Research Institute. The satellite monitors the vegetation and when it is usually scarce, the company gives payout. The farmers can then buy food for animals or pay a rancher for access to grazing land[15]. Farmers across the country have been enrolled to participate in the pilot project of the Agriculture Insurance Scheme. The ADAPT PLAN project design missed this important element which is very helpful in safeguarding the farmers from uncertain weathers.

3.1.2 Risks and Assumptions

The major risks identified at the time of project formulation were as follows:

- *Conflicts among stakeholders as regards roles in the project*. The mission as such did not observe any conflict among stakeholders as regards their roles in the project, except that 2 KIIs pointed out that all the funds are at the disposal of the District Councils and they do not have any fund to undertake monitoring visits. Because of this, their participation is limited only to attend meetings. The design of the project was that all funds will be channelled to District Councils for the practical implementation of the project activities. Monitoring budget of project activities for national actors were coordinated and managed by EAD.

- *Climate hazards disrupting tangible adaptation activities*. In early March 2019, Malawi experienced one of the worst tropical cyclone that was formed in the Mozambican channel, bringing heavy rains and strong winds into Malawi. Severe flooding negatively affected people's lives, livelihoods and socio-economic infrastructure, pushing more people in poverty. In total, an estimated 975,000 people were affected, with 86,976 displaced, 60 killed and 672 injured. On 8 March 2019 in consideration of the impact of the heavy rains, floods and strong winds associated with Tropical Cyclone Idai, the GoM

[12] *http://www.oecd.org/env/cc/48332185.pdf*

[13] *Fao.org/3/y5996e/y5996e02.htm*

[14] https://www.economist.com/finance-and-economics/2018/12/15/in-africa-agricultural-insurance-often-falls-on-stony-ground

[15] https://www.economist.com/finance-and-economics/2018/12/15/in-africa-agricultural-insurance-often-falls-on-stony-ground

declared a State of Disaster in the 13 districts and two cities in the Southern Region and two districts in the Central Region. The 15 affected districts were Balaka, Blantyre, Chikwawa, Chiradzulu, Machinga, Mangochi, Mulanje, Mwanza, Neno, Nsanje, Phalombe, Thyolo, and **Zomba** districts in the Southern Region and Dedza and **Ntcheu** in the Central Region. The two cities were **Zomba City** and Blantyre City. As a result of the disaster, around 90,000 internally displaced people (IDP) were sheltered in 174 IDP sites. An interagency assessment finding shows that the IDP included a disproportionate number of women, with 63 percent of those in IDP shelters in Machinga, Mangochi, Balaka and Zomba[16]. The impact in Zomba and Ntcheu districts was that community livelihoods were disrupted, and the progress of some project activities was derailed. However, measures were put in place to ensure that there is smooth progress of activities. This included strategies of collaborating with other similar projects for possible support. In addition, the UNDP Recovery Programme supported ADAPT PLAN communities in Zomba by rehabilitating the irrigation schemes that were damaged by flooding to ensure communities continue practising irrigated farming.

- *Extraneous actors, such as political change, disrupting the institutional framework*. Presidential elections in Malawi were held on 21 May 2019. The results of elections were highly controversial and has led to nation-wide violent protests in May, June, and July 2019. The case is being heard in the Constitutional Court of Malawi. Some interventions were not executed on time as planned because project staff and stakeholders were not able to travel to project sites/districts for planning and monitoring purposes. This happened for a short period and project implementation took place as as planned thereafter. As a remedy on the risk, climate change champions (trained community members) were used to monitor activities under implementation. The CCA champions are local representatives that are knowledgeable and are conversant with project implementation modalities and support fellow communities to achieve results.

- *Institutional Change*. At project formulation, the institutional change was identified as alow risk as during the 2014 election year some ministries may be shuffled. There were some changes, but all the participating institutions in the project still exist. The changes did not affect the general implementation of climate change-related work let alone interventions for ADAPT PLAN project.

- *Political will and change in mindset around climate change*. It was anticipated that during the course of implementing the political will for climate change and adaptation may dwindle but it did not happen. Rather, this project has enhanced political will and mind-set around climate change at all levels. The political has also enhanced good governance of climate change programming at all levels.

- *Financial Management*. The 'cash gate' financial management case caused many donors to freeze their assistance pending further investigations. At the time of project formulation, the programme districts were assessed as a moderate risk at HACT (Harmonized Approach and Cash Transfer) standards. This did not affect the project management process because control measures were put in place by UNDP CO, government authorities and stakeholders to ensure prudent use of resources. This was done by conducting quarterly financial spot-checks, monthly financial expenditure assessments and regularly conducting project audits.

- *Diversion of funds by implementing partners*. It was anticipated at the project formulation stage that the district governments have limited budgets and may divert project funds to other activities. The project closely monitored the financial management at the district level, the funds were also audited by external auditors and no financial anomaly was reported in this regard.

- *Problems associated with staff turnover and lack of interest*. This was not really a problem because the project staff was dedicated to the delivery of the project. The only minor issue was that some

16 *https://reliefweb.int/sites/reliefweb.int/files/resources/Malawi%202019%20Floods%20Post%20Disaster%20Needs%20Assessment%20Report.pdf*

government staff were transferred from one district to another, but they were immediately replaced to ensure continuity of project implementation.

- *Problems related to the involvement and co-operation of stakeholders (Village Leaders and community members)*. The project activities were highly relevant to the immediate needs of communities; therefore, the local leaders and communities were in harmony and no case of lack of cooperation was observed during the mission. The analysis of documents revealed only once case where the chieftain misused the project resources and corrective action was taken in time.

- *Delay in release of funds by the government ministry*. It was a practice that UNDP transferred funds to the EAD which then transferred funds to the District Councils. It was reported by all the district staff that the transfer of funds to the District Councils unexpectedly took a longer time, and sometimes, funds were at the disposal of experts during the last month of the quarter. Then the staff faced pressure to spend the funds quickly for having the next quarterly advance. This certainly resulted in delays in implementation of activities.

- *Poor coordination among the DCCMS and MAIWD* to translate meteorological information into agricultural forecast was identified as a risk at the project formulation stage. A Taskforce was put in place comprising of members from the two departments and later translation of meteorological information was being done on a quarterly basis.

3.1.3 Lessons from Other Relevant Projects

The NCCTC has made a comprehensive attempt to scope adaptation efforts in-country, and provided inputs during the PPG phase about the most important initiatives to further scope for identifying lessons learned, opportunities for replicating/scaling up best practices, and partnership. Major related LDCF-funded projects included the Climate Adaptation for Rural Livelihoods and Agriculture (CARLA) project, Climate-Proofing Local Development Gains in Rural and urban Areas of Machinga and Mangochi Districts, and the Strengthening Climate Information and Early Warning Systems in Eastern and Southern Africa for Climate-Resilient Development and Adaptation to Climate Change project; and a DFID-funded NGO consortia-led initiative-the Enhancing Climate Resilience Programme (ECRP). The ADAPT PLAN project complement these initiatives in different 'hot spot' TAs requiring immediate attention to support the communities and conserve the ecosystem, and there was no duplication of activities.

3.1.4 Planned Stakeholders Participation

The ProDoc gives in detail the stakeholders' participation (Section 2.5). The consultant observed that the stakeholders were fully involved, except for the involvement of NGOs. The engagement of NGOs in implementation could aid implementation of activities, as well as play a role in keeping up the communities' interest after completion of the project. Further, NGOs could also help in mobilizing funds from donors which are 'earmarked' for NGOs. The staff of District Councils was highly motivated in implementing activities. Whereas at the national level, it was informed that their participation was limited only in the participation of meetings and they lacked resources to monitor the activities in the field. The project engaged six consulting firms to undertake various studies (Table 5). Of these, LEAD (Leadership for Environment and Development) Malawi, a renowned company in environmental studies and management, conducted two studies, namely, (i) situational and baseline analysis of the status of CCA including gender mainstreaming and translation of National Climate Change Management Policy. The other companies engaged were: Institute of Development Management for Social Analysis; Lochhead Consulting; Consulting team; Focus Multimedia Consultancy; and Ecosystem Partners Communication.

3.1.5 Replication Approach

The project has put in place and demonstrated the institutional framework required to integrate adaptation into development planning. The districts were chosen based on the vulnerability profiles and the sectors (agriculture,

water, and forestry) were chosen because of their importance in the local and national economy. The facilitation in preparation of sectoral strategies and DDPs by the project means that the climate change adaptation will be a priority area in the future at the national and district levels. Convinced with the achievements of the project, UNDP is planning to start a new similar project with three districts. Because of high vulnerability, district Zomba has been included in the possible successor project.

At the community level, the local communities have learned that the adaptation and diversification of livelihoods is the only way out to survive under the changing climate. In all the districts, it was observed that the local communities have appreciated the irrigated agriculture as a means to survive under the rainfall uncertainties and they are eager to replicate. Several other instances of replication by communities were observed. A few examples are:

- *Mshunguti Poultry Group, village Mdoyi, TA Mbawna, district Nkhata Bay*. The project assisted this group with 200 broiler chicks, 15 bags of feed, medicines, and material for constructing one room poultry farm. The group comprising of 32 females and 10 males registered with the MITT in November 2018 and also received training in the management of cooperative and record keeping. Each member is a shareholder of MWK 10,000 in the cooperative. A chick costs MWK 480, and after 5 weeks the bird is ready for sale for MWK 3,000. The group sold the full-grown broilers and then purchased new chicks. At present, the group is maintaining 4 room poultry farm with 1,000 birds. The group members work on the farm on a rotational basis as per agreed calendar, without any charge, however, they are entitled to borrow MWK 30,000 for three months at 10% interest rate to start any other business or to meet their urgent household needs. It is planned to pay a dividend to members in December 2019 as per law, and it is anticipated the dividend per member will be around MWK 150,000 which is a substantial amount.

- *Piggery Group Village Kamchsbazi, TA Kabunduli, District Nkhata Bay*: This group is composed of 3 sub-groups (1st group 16 females and 11 males; 2nd group 12 females and 4 males; and 3rd group 9 females and 5 males). One group member is trained as a veterinarian. This group is also registered with the MITT. It received material for the construction of piggery and 15 weaners in 2017 and 60 in 2018 and medicines. The cooperative is also supporting the individual farmers interested in the business. An individual can get a pair and in return will have to return 50 weaners to the cooperative. So far 20 weaners have died due to some diseases. A full-grown pig sells for MWK 60,000 to MWK 90,000 at the age of two years. At present, the total strength of piggery is 75 (maintained at three different places) and it is expected that by 2020, the size will grow to 150. The members work in piggery on a rotational basis as per the agreed calendar and are entitled to dividends at the end of the year. The strategy of the group is to increase the size of piggery first and then start the sale and paying the dividend to the members.

- *Irrigation Schemes*: So far, the project has implemented 10 irrigation schemes in the three districts and 145 ha area has been brought under irrigated agriculture. At all the sites, it was informed that communities are taking two or more crops because of increased water availability. In the past, they were waiting for the rains and only one crop with a little yield was obtained annually. But now, because of planting maize two times and growing of vegetables, the income from 0.1 ha (average holding size per member) is MWK 100,000 (MWK 70,000 from maize and MWK 30,000 from vegetables). Without irrigation scheme, the farmers used to earn maize worth of only MWK 20,000 per 0.1 ha. Although the mission has not come across with replication of any irrigation scheme by the community by itself, but the crop intensity has certainly increased. It was also informed that many farmers in all the districts are keen to join the irrigation schemes. In Nkhata Bay, the GoM is implementing a major project of irrigation schemes in the entire district.

Since the adaptation activities demonstrated by the project are directly beneficial to the local communities in terms of asset creation and value appreciation, and now they have learned by doing, it is anticipated the adaptation activities will be replicated and up-scaled within the districts and will motivate other district governments to follow this approach.

3.1.6 UNDP Comparative Advantage

UNDP is the UN's global development network, an organization advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. In UNDP's portfolio, managing Energy and Environment for sustainable development is one of five core goals for the agency, together with: Democratic Governance, Poverty Reduction, Crisis Prevention and Recovery, and HIV/AIDS. At the Rio Summit in 1992, UNDP received the mandate to develop national capacities for integrating social equity, economic growth and environmental protection issues at all levels of development decision making. The mandate to foster integrated policy development and implementation for sustainable development is consistent with UNDP's role in the GEF priorities.

In fact, UNDP's comparative advantage for the GEF lies in its global network of country offices, its experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation. UNDP assists countries in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP also has extensive inter-country programming experience. It furthers its objectives of practice areas through country-level coordination of the United Nations system, advocacy and policy advice, and project development. UNDP Resident Representative also manages the Resident Coordinator system on behalf of the UN in each country office. Its global network of country offices underpins the role of the United Nations as a partner in 166 countries.

Prior to this project, UNDP was implementing three other LDCF projects within Malawi: the CARLA project, the 'Climate-proofing of Local Economic Gains in Rural and Urban Areas in Mangochi and Machinga Districts' and "Strengthening Climate Information and Early Warning Systems in Eastern and Southern Africa for Climate Resilient Development and Adaptation to Climate Change – Malawi". The ADAPT PLAN certainly benefitted from the experience of these projects as there was so much complementariness in activities.

UNDP in particular trained the District staff in preparation of work plans, financial reports, cash book management, reporting, UNDP rules and regulations about procurement and monitoring field activities. Several spot checks were made by the UNDP staff and Project Manager and corrective actions were solicited to be taken on an urgent basis (UNDP Back to Office Report (BTOR) 11 Oct 2016; 17 September 2019). For example, when it was realized that the implementation is slow, UNDP hired a District Coordinator for each district to expedite day to day implementation. Likewise, UNDP raised the issue of frequent staff turnover in districts with the District Commissioners and national government and ensured that the staff deputed for the project is not transferred or assigned to other duties without any major reason. UNDP played its role particularly in fine-tuning of government plans and policies to incorporate CCA strategies in the policies. UNDP having access to the highest GoM office was very helpful in influencing MGDS III to incorporate CCA and getting the DDPs revised for mainstreaming CCA which was the core objective of this project.

At the time of project formulation, UNDP did not commit any funds for the project activities. However, when realized that some activities need more financing, which was not possible under GEF, UNDP utilized its TRAC resources to complement the activities to obtain impactful results.

Besides this, at present, UNDP is implementing a number of projects which reinforce better governance, natural resource management and adaptation and thus ensure sustainability[17]. These are:

- Joint UNDP- UNEP Poverty and Environment Initiative
- National Climate Change Programme
- National Climate Resilience Proramme
- Climate Resilience Initiative in Malawi
- Saving Lives and Protecting Agriculture – Based Livelihoods in Malawi: Scaling Up the Use of Modernized Climate Information and Early Warning System (M – CLIMES)
- UN – Joint Work on Human Rights
- Social Cohesion Project

[17] *https://www.mw.undp.org/content/malawi/en/home/projects.html*

- Strengthening Institutional Capacity for Development Effectiveness and Accountability Programme (DEAP)
- Development of A Robust Standardization, Quality Assurance, Accreditation And Metrology (SQAM) Infrastructure Project In Malawi
- Private Sector Development Project
- Access to Justice through Village Mediation and Paralegal Services Project
- National Registration and Identification System Project
- Disaster Risk Management Programme Support
- Climate Proofing Local Development Gains in Rural and Urban Areas of Machinga and Mangochi Districts
- Increasing Access to Clean and Affordable Decentralised Energy Services in Selected Vulnerable Areas of Malawi
- Malawi Electoral Cycle Support (MECS) Project

Likewise, UNDP has an experience of implementing 88 GEF Small Grants projects in various districts of Malawi and many are in the areas of land degradation, forestry, fisheries, livestock, medicinal and herbal plants, solar energy, smoking kilns, fuel-efficient cookstoves, beekeeping, etc. All these thematic areas are covered in the ADAPT PLAN project as well. GEF-SGP offers a platform to various community groups in ADAPT PLAN project districts to secure funds for advancing the agenda of adaptation and ensuring financial sustainability. It also refers to UNDP to upscale some of the proven adaptation technologies in its current and future major projects.

3.1.7 Linkages between Project and other Interventions within the Sector

As mentioned in Section 3.1.6 at the time of formulation, 3 LDCF projects were in operation in Malawi, viz., CARLA project, Climate-Proofing Local Economic Gains in Urban Rural Settings of Mangochi and Machinga Districts, and Climate Information and Early Warning projects. The goal of the CARLA project is to improve resilience to current climate variability and future climate change by developing and implementing adaptation strategies and measures that will improve agricultural production and rural livelihoods[18]. The project was working in Dedza, Karonga and Chikwawa districts to support community-based adaptation that improves agricultural production and rural livelihoods, whilst also strengthening the awareness and capacity of districts and relevant national-level ministries to support community-based adaptation. Based on demonstrations from a model CARLA community, selected vulnerable communities were encouraged to develop Community Adaptation Action Plans. There was no overlap of project sites.

The climate proofing project implemented by UNDP was in operation in Mangochi and Machinga districts. It aimed to use ecological, physical and policy measures to reduce vulnerability to climate change-driven droughts, floods and post-harvest grain losses for rural and urban communities. Ecological and physical infrastructure measures for water management demonstrated by the project were adopted to reduce risk of climate change driven floods while mitigating against droughts.

The strengthening climate information and early warning systems in Eastern and Southern Africa for climate-resilient development and adaptation to climate change – Malawi project (2013-2018), was implemented by the Department of Disaster Management Affairs under the Office of the President and Cabinet – in collaboration with key RPs, namely DCCMS and Department of Water Resources. It aimed to establish a functional network of meteorological and hydrological monitoring stations, develop and disseminate tailored weather and climate information for drought, floods and Mwera winds to meet the needs of end-users in particular local farmers and fishermen in at least 7 disaster-prone priority districts, namely Phalombe, Dedza, Kasungu, Lilongwe, Salima, Nkhotakota, Karonga and Nkhata Bay. Since Nkhata Bay was included as one of the main districts in which strengthening climate information and early warning project was being implemented, it was excluded under

[18] *https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Malawi_-_AR_-_Climate_Adaptation_for_Rural_Livelihood_and_Agricuture__CARLA_-_LOTB_-_Approved_.pdf*

output 2.4 of ADAPT-PLAN, which refers to the improved communication of weather information to benefit local-level farmers.

A UN Joint Project led by FAO entitled: Building the Capacity of most Vulnerable Households to meet their Basic Needs and Withstand Shocks (by resisting or adapting their livelihoods), was implemented in Phalombe District from 2014-2016. The project aimed to (i) support and implement social protection programmes in coordination with humanitarian emergency assistance; (ii) strengthen government capacity to coordinate around disaster risk management; (iii) create and strengthen the capacity of agricultural and other sectors' extension workers, local authorities, lead farmers, and input providers in the area of resilience and risk reduction; and (iv) implement community-based nutrition education and communication programmes. The project also embarked to develop 18 Village Action Plans. The project linked humanitarian interventions (mainly as a result of food insecurity caused by droughts) with development interventions (social protection, agriculture, Disaster Risk Reduction) in order to build the resilience of the targeted vulnerable population. This project further defined and operationalized the concept of resilience and its operationalization at the District level and served as a model for further resilience-based activities in Malawi.

The Enhancing Community Resilience Programme's (ECRP's) purpose was to increase the resilience of vulnerable communities to climate variability and change. The programme is being implemented in 11 disaster-prone districts by two consortia led by Christian Aid and Concern Universal. The programme was funded by DFID with additional support from Governments of Ireland and Norway. ECRP was initially planned for 5 years from 2011 to 2016, however, the programme was extended up to September 2017. The approach was to enable communities to switch to resilient livelihoods through working with Civic Protection Committees and Lead Farmers to provide knowledge and behavioural practices (not inputs) in order to address dependency and ease the likelihood of other non-targeted households. Of particular relevance to ADAPT-PLAN is the fact that this project also improved communication of weather information to farmers. ECRP had signed a cost-free MoU with the DCCMS to provide the forecasts every 5 days. The project then translated forecasts into layman's language and worked through an African-owned web-based supplier Esoko, which sends forecast messages to cell phones at a cost of $1 per farmer per year. The ADAPT Plan project adopted the dissemination of weather forecasts but through the extension workers and radio programs to avoid the cost to be incurred by the farmers, which came out to be an impediment in the adoption of the model of ECRP project.

3.1.8. Management Arrangements

This project was implemented under UNDP's National Implementation Modality (NIM). The MNREM implemented the project through its Environment Affairs Division (EAD). The Project Board comprised of National Steering Committee on Environment, Natural resources, and Climate Change, who provided policy guidance for the project as proposed by the well-established NCCTC which has its own procedures. The NCCTC provided the technical direction of the project, and it played a critical role in project monitoring and evaluations by quality assuring these processes and products and using evaluations for performance improvement, accountability and learning. It ensured that the required resources are committed and arbitrated on any conflicts within the project or negotiate a solution to any problem with external bodies. In addition, it approved the appointment and responsibilities of the Project Manager. Based on the approved Annual Work Plan, the NCCTC also considered and approved the quarterly plans and approved any essential deviations from the original plans.

UNDP Malawi is a member of the NCCTC as well as the Steering Committee on Climate Change, and this enabled UNDP to discharge its project assurance role effectively to ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. This also enabled UNDP to learn from similar projects being funded by other donors and GoM. The Project Manager worked under the technical direction of the Director EAD and coordinated closely with the Programme Manager of the National Climate Change Programme to ensure that synergies and efficiencies are secured.

At the national level, the participating ministries (MNREM, MFEPD, MAWDI, MLGRD) were responsible to provide policy guidelines to the district teams and provide adequate staff in concerned sectors. However, it was

mentioned by staff of two ministries that they did not had any funds to undertake field monitoring and their participation was limited to the attendance in meetings.

Based on the work plans, UNDP released funds to the EAD, which then transferred those to the District Councils (by way of their District Development Funds), which are managed by the District Directors of Finance, under the leadership of District Commissioner. The District Executive Committees (DEC) has the overall responsibility of oversight and operational responsibility for spending money. The District Environmental Sub-committees (part of the DEC and headed operationally by the Environment District Officers (EDOs) – who acted as Assistant Project Coordinators in this project) applied to the District Commissioner (as head of the DEC), with the Director of Finance releasing funds. MOUs were signed with the appropriate DECs to confirm the availability of EDOs for, and commitment to, the outputs to be delivered together with the activity plan. EDOs report to and recommend to the DC, based on the provision of appropriate proposals and/or reporting requirements (fulfilling M&E), when it is appropriate to release funds from the DEC account to project bank accounts held by the Village Development Committees. EDOs also formed the primary point of contact with the Project Manager at the district level, and regularly communicated project progress and discussed issues arising through meetings. District representatives attended NCCTC meetings to inform at the national level about progress in their districts. All sector-specific project activities were implemented by the relevant heads of sectors (e.g. forestry, agriculture, irrigation, fisheries, etc.) in order to ensure efficient coordination with other sectoral activities, in communication (and collaboration) with the Assistant Disaster Risk Management Officers (ADRMOs).

At the community level, the VDCs were empowered to coordinate the activities. This enhanced the collaboration of all local structures and the district team. This arrangement is in line with the existing decentralisation structures and strengthened both vertical and horizontal coordination within the districts whilst simultaneously leading to effective implementation of activities and delivery of results. Within each VDC is a Project Implementing/Management Committee, which, in cooperation with the Village Natural Resource Management Committee and/or Civil Protection Committee provided oversight for the tangible adaptation activities in outcome 2 (diversification of livelihoods).

The first Project Manager was hired on 1st September 2015, who then resigned in May 2016 (after serving one year). The new Project Manager joined on 1st September 2016, thus there was a gap of three months, which seems to be reasonable as it is a cumbersome process to hire a senior person. As per the ProDoc, in the districts, the EDOs were serving as Deputy District Coordinators and it was observed that the implementation pace is not up to the mark. Therefore, UNDP took a decision to have a District Coordinator on project payroll in each district. Consequently, the three District Coordinators were hired with effect from 1 August 2017 till the end of the project. This step was instrumental in improving coordination, implementation and reporting. The Finance and Administrative Assistant joined on 1 November 2015. In addition, three UNDP staff (Programme Analysts) supported the project team.

In addition to regular staff, the project also recruited six consultancy firms to undertake special studies which are listed in Table 5 below:

Table 5. Special studies conducted by the project

S.No.	Name of Consultant	Type of Assignment
1	Institute of Development Management for Social Analysis	Carrying out district council annual budget analysis for the inclusion of climate change
2	Leadership for Environment and Development	Translation of National Climate Change Management Policy
3	Leadership for Environment and Development	Undertaking a situational and baseline analysis of the status of CCA including gender mainstreaming
4	Lochhead Consulting	Development of capacity development and Incentive Plan for CCA
5	Consulting Team	Sectoral Guidelines for integrating CCA in development planning

S.No.	Name of Consultant	Type of Assignment
6	Focus Multimedia Consultancy	Development of a communication strategy and design materials for awareness campaigns on CCA
7	Focus Multimedia Consultancy	Carry out annual project stories of change for 2017
8	Ecosystem Partners Communication	Carry out annual project stories of change for 2018

Regarding accountability, UNDP and EAD were responsible for field monitoring and spot checks. The financial audit of UNDP was conducted by a renowned chartered accountancy firm, whereas the audit of the District Councils is conducted by the National Audit Office. Regarding reporting, the districts report to EAD, who subsequently, as an implementing agency, submits reports to UNDP.

3.2 Project Implementation

3.2.1 Adaptive Management

The project was implemented under the NIM modality, and as per PoDoc approved by UNDP and GEF, all the funds were transferred to the EAD (after passing through various assignment accounts of GoM), an operational unit of MNREM. The EAD then transferred the funds to the District Councils for implementation. The Project Management Unit (PMU) is housed in the EAD. In the beginning, Project Manager and a Finance & Administration Associate were on project payroll and the implementation was done by the staff of respective District Councils. The EDOs servef as Assistant District Coordinators. This process was not quite efficient in terms of coordination and reporting, therefore, UNDP and GoM decided to appoint full-time District Coordinators in each district on project payroll with effect from 1 August 2017. With this arrangement, the implementation became efficient.

The monitoring visits conducted by UNDP and the Project Manager helped in making prompt decisions. In the BTOR of 19 September 2019, it was noted that livestock production is doing well in all the three districts, however, beneficiaries in the cooperatives Kamchibazi did not implement some interventions for some time because of chieftaincy conflict. The start-up materials and equipment for piggery were not used because they were not ready to do a part of their contribution and some equipment was being used by chieftain for personal use. The District Authorities were moved to withdraw assistance from this group and provide it to some other group and this action was considered to be highly timely

The project site, Chipusire in Ntcheu District is a dryland area and there is a severe shortage of water. Nurseries were established but tree seedlings were not doing very well. The irrigation system that was installed there was discovered to be of less capacity as compared to the system that would be ideal. Apparently, this was the case because, after the sectors had submitted the technical specifications, the contractor had negotiated with the Procurement Specialist alone and used their own specifications as a result different specifications were used disregarding the correct ones. This was done to remain within the budgetary limits. The council also did not know that they could revise the budget to meet the required specification of the ideal system, as such they opted to proceed with a modest design which would unfortunately not yield maximum results and impact (BTOR 11 October 2016). Ntcheu District Council redesigned the system and advised the contractor to follow the right specifications. Additional water tanks at this site were provided to address the issues. At present, the irrigation scheme is meeting the requirements of the community.

3.2.2 Partnership Arrangements

This has been discussed in detail in Section 2.5 and 3.1.4. In addition, the project worked closely with FAO in Zomba District where it is implementing a similar project. At the district level, the project conducted a stakeholder mapping exercise where partners were called to share their project's progress and asked to provide information on their project's for consolidation. Meaningful results in engagement were realized when the project worked closely with the LGAP (Local Government and Accountability Performance) project funded by USAID in Zomba).

In Nkhata Bay, the Project facilitated the setting up of a coordination unit for similar projects being implemented in the district so that some lessons and collaboration could be achieved. The District Coordination Unit is comprised of Agricultural Infrastructure and Youth in Agribusiness Project (AIYAP), Program for Rural Irrigation Development (PRIDE), Kutukula Ulimi m'Malawi (KULIMA), Let them (the children) develop to their full potential (AFIKEPO) and ADAPT PLAN. The project also worked closely with the FAO in Zomba district as part of collaboration and complementarity because both FAO and UNDP are implementing climate change adaptation projects in the district. This was part of ensuring that there is a harmonization of synergies for effective execution of the projects. This was done through coordination and monitoring meetings, and other forums.

3.2.3 Feedback from M&E Activities used for Adaptive Management

Discussed in Section 3.2.1.

3.2.4. Project Finance

The total project cost approved at the time of CEO endorsement was US $ 11,061,341 with GEF contribution of US $ 4,500,000 and Government co-financing of US $ 4,161,341 (Table 6). At the time of CEO endorsement, UNDP did not indicate any TRAC fund contribution, however, it contributed US $ 922,779 from TRAC.

The annual project budget and expenditure is given in Table 7. In 2015, the GEF budget allocation was US $ 242,398 of which US $ 170,818 were spent- delivery 70%. However, in the following years, the project implemented activities on fast-track and the annual delivery was close to US $ one million (84-94% delivery). The overall delivery at the time of this evaluation was 4,499,230 (99.98%) (Table 7).

UNDP provided TRAC funds from 2017 to 2019 (Table 7), and the project made 100% delivery in 2017, 84% during 2018 and100% during 2019. The overall UNDP TRAC funds delivery at the time of TE was 94%. The combined delivery (GEF+UNDP funds) was 98.92%.

Table 6. The financial position of the project at the time of CEO endorsement, MTR and end project

Co-financing Type	UNDP (IA) Own Financing (US $)		GEF (LDCF) (US $)		Government (US $)		Community (US $)		Total Financing (US $)		Total Disbursement (US $)	
	Proposed	Actual	Proposed	Actual	Proposed	Actual	Proposed	Actual	Proposed	Actual	Proposed	Actual
Grant	2,400,000	922,779	4,500,000	4,499,230	0	0	0	0	6,900,000	5,422,009	6,900,000	5,364,19
In-Kind	0	0	0	0	4,161,341	554,191	0	601,645	4,161,341	1,155,836	4,161,341	1,155,83
Parallel	0		0	0	0	4,626,748	0	0	0	4,626,748	0	4,626,74
Total	**2,400,000**	**864,969**	**4,500,000**	**4,499,230**	**4,161,341**	**5,180,939**	**0**	**601,645**	**11,061,341**	**11,204,593**	**11,061,341**	**11,146,7**

The District Councils provided staff for the implementation of activities. The consultant discussed with the staff of districts the time allocated by them for the implementation of activities. The estimated time allocated by various officials is given in Table 8. Based on the gross salaries of the staff, the government's in-kind contribution was calculated, which turned out to be US $ 554,191 (Table 6). Besides this, the District Council Nkhata Bay provided funds to the tune of US $ 4,410,667 for the following projects in the entire district:

- Program for Rural Irrigation Development- Govt. project funded by IFAD
- Agricultural Infrastructure for Youth in Agri. Business- funded by ADB and EU
- Allow the Children to their Potential [AFIKEPO] funded by EU, implemented by FAO

Table 7. Annual budget and delivery of the project from 2015-2019

Year	Budget (US $)	Expenditure (US $)	Delivery (%)
GEF			
2015	242,398	170,818	70
2016	763,859	737,436	97
2017	1,364,776	1,280,640	94
2018	1,308,300	1,231,019	94
2019	1,083,932	1079,317	84
Sub-Total	*4,763,265*	*4,499,230*	*99.98%*
UNDP TRAC			
2017	278,273	278,273	100
2018	300,014	251,204	84
2019	335,492	335,492	100
Sub-Total	*922,779*	*864,969*	*94*
Grand Total	**5,645,552**	**5,364,198**	**95%**

Likewise, in Ntcheu district, the District Council provided funds (parallel) for projects in the entire district to the tune of US $ 216,081 (Table 6). The in-kind contribution of Zomba District Council was US $ 147,729, Nkhata Bay US $ 309,847 and Ntcheu was US $ 96,615. Thus the total amount of funds provided by the District Councils was Us $ 5,180,939, which is more than what was committed at the time of CEO Endorsement **(US $ 5,180,939 vs 4,161,341-** Table 6).

The community contribution was also calculated in terms of acreage of land allocated by communities for implementing irrigation schemes, fish ponds, Adaptation Learning Centres and labour to prepare the land for irrigated agriculture. Based on the standard rates of the GoM for the cost of land and labour, the calculated communicated contribution is estimated to be US $ 601,645 (Table 6). Thus the overall co-financing was US $ 5,782,584.

Table 8. Estimated percent Time Allocated by staff of District Councils for Implementation of Project Activities

S. No.	Staff Title	% Time Allocated
1	District Commissioner	5
2	Director Planning	30
3	Chief Accounts Officer	7
4	Livestock Officer	25
5	Irrigation Officer	45
6	Water Officer	10
7	Forest Officer	20
8	Fisheries Officer	40
9	Accounts Assistant	100
10	Environment District Officer	40
11	Monitoring & Evaluation Officer	10

Audit

The consultant reviewed the audit reports of 2017 and 2018. The cash position and inventory of equipment was as per standard procedures. At the end of December 2018, the project is holding assets worth US $ 148,862.39. The 2017 report did not highlight any observation but 2018 report observed the followings:

- Internal controls and risk management practices were generally established and functioning but needed improvement, particularly at the district level.
- The ADAPT PLAN supported the participation of NCCP and climate proofing project for participation in a conference. However, the consultant agrees to the explanation provided by EAD and UNDP that the ADAPT PLAN has collaborative arrangements with the other projects which also aim to scale up adaptation. The activity was in the approved 2018 Annual Work Plan.
- The Audit Report 2018 also observed that in 2018 the project did over expenditure to the tune of US $ 98,923, which warrants more stringent budget and expenditure controls at the district levels.

3.2.5 Monitoring and Evaluation

The ProDoc narrates a detailed Monitoring & Evaluation Framework (M&EF). As per UNDP and GEF guidelines, the Inception Workshop was held on 18 to 19 May 2015, In this workshop, 41 persons participated. The stakeholders were represented by their representatives. The staff of all the programme districts also participated. In this workshop, the participants were briefed about the background and objectives of the project, results and resources framework, annual work planning, UND procurement and financial procedures and GEFF/UNDP monitoring evaluation and reporting procedures.

The M&EF and reporting format for the project was prepared in 2017, through a stakeholders' workshop. The purpose of the M&E framework was to facilitate the integration of various sectoral climate change adaptation efforts and enhance CCA information sharing and utilization amongst various stakeholders within Malawi; and to be used to track the progress being made on climate change adaptation and inform subsequent CCA planning at national, sector and district level. The framework gives 3 indicators for irrigation, 2 for water, 8 for forestry, 8 for fisheries, 4 for livestock, 4 for energy, 2 for infrastructure, 3 for health, 2 for gender, 5 for land reforms and 3 for crops. The consultant reviewed the indicators, and these are SMART (specific, measurable, attributable, realistic and trackable), however, in the framework except for 2 indicators no baseline or target was mentioned. This is critical for the EAD to have this information for tracking the progress being made.

Additionally, progress towards GEF corporate results is monitored using the GEF Climate Change Adaptation Tracking Tool that was prepared at project development and immediately preceding the MTR and before the commencement of TE. The M&E System is budgeted with US$ 92,000, which corresponds to 2% of the GEF grant which is considerably lower. The M&E budget contains expenses for the inception workshop (US$ 5,000), MTR (US$ 35,000), terminal evaluation (US$ 40,000), financial auditing (US$ 12,000), and field monitoring visits (US$ 5,000). The M&E plan listed but did not make any financial allocations towards the monitoring of outputs and implementation.

The project commissioned a baseline study in 2017 and published a baseline report in 2017. Some 200 households from the programme districts were sampled and a questionnaire was administered. The baseline survey captured the demographic profile of the sampled communities, their assets, climate change awareness level, impacts and climate adaptation strategies being followed. The data was well analysed and presented. Some of the findings of this survey are presented in Section 3.3.7. The project had planned an end-line survey but later postponed it till 2020. It will be an interesting survey to capture the before and after effects.

The project management, UNDP, and EAD conducted monitoring visits and the BTORs are well documented and follow up actions were taken to rectify the situation. Joint monitoring missions were also conducted by the concerned officials of the central government (BTOR 18 December 2017). This joint monitoring meeting identified encroachment by local communities in the forest area and urged the district administration to be cognizant of this issue. However, during TE three IPs at the central level pointed out during interviews to have a

budget line at their disposal for conducting M&E activities. Sometimes the central level action could provide an immediate solution, e.g., it was pointed out by the MLGRD that in Ntcheu district the concerned staff was not performing well and the ministry was instrumental in having a better replacement.

The project organized the MTR mission from September- November October 2017 and the report was published on 15 December 2017. The report provided a good analysis of the findings, but the financial analysis given in the report was not detailed. Likewise, the report offered 14 recommendations and it did not follow the guidelines for conducting MTRs for UNDP supported GEF projects.

3.2.6 UNDP and Implementing Partner Implementation/Execution, Coordination and Operational Issues

UNDP because of having a strategic position at the international and national level, played a highly proactive role in managing the GEF grant for project formulation as well as for the main project. It also provided its own TRAC resources to compliment GEF supported activities. No issue (except delayed release of funds) for UNDP was mentioned in the project documents as well as during the interviews with the government officials or beneficiaries. UNDP had signed agreements with other stakeholders to provide support for the project implementation. For example, it signed an agreement with the Bvumbwe Research Station to provide banana seedlings/suckers to the project (BTOR 11 October 2016) which helped the communities to have high-quality seedlings.

UNDP observed that the pace of implementation of project activities during 2015 and 2016 was very slow, as the staff of District Councils was engaged in activities of many other government projects. For example, Environmental District Officers and staff have core functions at the district level aside from managing ADAPT PLAN Project. As a result, they assign priority to other functions and activities hence the project implementation is delayed; this was evidenced in all the districts where some communities were providing sentiments that they thought that the district teams had forgotten them because they don't frequently visit them. UNDP raised this issue with the District Councils and EAD to rectify the situation. To further improve the situation, UNDP decided to create a position of District Coordinator in each district to better coordinate and improve communication between UNDP, District Councils, experts and the beneficiaries. During the TE, no community raised such an issue again.

The turnover of the staff of districts was relatively high. Moving of Officers from one sector to another and from one district to another affected activity implementation. This created a huge gap in terms of institutional memory and understanding of UNDP-GEF programming. The intervention of UNDP slowed down the staff turnover rate to some extent.

During TE, it was observed that the role of M&E Officer at the district level, though highly important, was minimal and even they were not available for the meeting. The M&E Officers play a crucial role in monitoring and reporting, therefore, in future projects, their time allocation must be ensured or M&E Assistants on project payroll be hired to enhance implementation.

Though the UNDP and GEF procedures were explained to the IPs, the district teams were not confident about the UNDP procedures and did not maintain proper documentation, which led to audit observations. A continued capacity building regarding the rules and regulations is highly essential.

During TE, the District Council staff in some districts reported delays in the release of quarterly advance, especially the first quarter of the year. The advance was delayed as much as two months which delayed the procurement of inputs and implementation and then procurement and implementation were done in a hasty manner.

At the central level, the focal persons indicated that though they play an important role in the provision of experts at the district level, they do not have any budget for undertaking monitoring visits in the districts. From the review of documents, the consultant came across the record of a Joint Monitoring visit which was conducted

in December 2017. This observation of the staff of ministries is partially true and it would be ideal if at least two Joint Monitoring visits of the stakeholders be conducted during the course of a year.

It was also mentioned during TE, that the project did not share the progress reports with the concerned ministries. It may be the case that the reports did not trickle down to the concerned officers in the ministries. It would be ideal to have a project-specific website on which all the monitoring and progress reports and knowledge products be uploaded for the information and use of all the concerned.

3.3 Project Results

3.3.1 Overall Results

The objective of the project was *"to strengthen consideration of climate change adaptation needs in decentralized and national development plans".* Adaptation to climate change at the start of the project was in abstract form. Achievement of results has varied across different outcomes but given the design of the project where results were interlinked from one outcome to another, there has been tremendous progress in outcome 2 with more than 100% achievement, followed by outcome 3 and outcome 1. The project contributed both at the micro- and micro-level. At the macro-level, the project contributed to the development of district plans, MGDS III, National Resilience Strategy, the establishment of National Climate Fund, and Expenditure Review on Climate Change and its indicators. The contribution was in the form of identifying indicators and entry points for adaptation to climate change, revision of planning tools for appraising projects to include indicators for adaptation to climate change, and it supported structures and policy instruments as a basis for mainstreaming adaptation to climate change. The public expenditure reviews strengthened the level of analysis and negotiating power to policymakers by providing evidence and demonstrating the importance of raising domestic financing to address impacts of climate change at the national level. The expert working group on adaptation to climate change was highly instrumental in localizing adaptation, identifying metrics for measuring adaptation to climate change and validating technical studies which led to tools that were used as entry points for mainstreaming adaptation to climate change in planning.

The project undertook Community Based Resilience Analysis (COBRA) which helped communities to develop community adaptations plans which led to the development of district adaptation plans. Based on these tools, the project reached 8,465 households directly, in terms of demonstrating adaptation, against at end of project target of 5,800 households. It also benefited to 15,682 households indirectly. The male:female ratio of direct beneficiaries was 1: 1.5, whereas by including the indirect beneficiaries in the total, the male:female ratio as 1:1. The revised DDPs and the capacity that has been built up by the project in terms of trained duty bearers and poor community members in CCA will lead to further scaling up.

Under Outcome 3, the project has enhanced access to weather and climate information, reaching out to some 90% of the target population in the districts through different media- mainly extension workers and radio. Based on these achievement **rating 6 (highly satisfactory)** has been awarded (See Annex 7 for the linkages with the AMAT outcomes and indicators.

Outcome 1. Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level. The target was to have at least 3 DPPs and 3 Village Action Plans (VAPs). Three Village Action Plans (VAPs) and three DPPs have been prepared. Zomba District Plan has been published and the others are in draft form. The public expenditure reviews on climate change were conducted both at national level and in three pilot districts. The results of different assessments contributed to determining entry points for developing socio-economic profiles for the three districts, which included identifying indicators and preparing plans, monitoring and resourcing tools for the implementation of development programmes. Tools for appraising development projects have also been adjusted to include CCA indicators, and this has enabled the planning process to mainstream adaptation to climate change.

Implementation of these plans includes a number of training sessions for the communities, district and national staff. The transfer of skills has helped to shape an understanding of policy-makers and different stakeholders who make decisions regarding the allocation of resources for development planning to have risk-informed perspective when endorsing plans. The project has implemented the adaptation plans in all three districts, reaching out to 8,465 directly against the end of project target of 5,800 households with a range of adaptation options that have enhanced the adaptive capacity of communities from economic, social and biophysical perspective of adaptation.

The second indicator for this outcome was *"number and type of targeted institution with increased adaptive capacity to minimise exposure to climate variability".* With regards to capacity building- 30 national-level government staff (21 men and 9 women) and 55 district staff (19 women and 36 men) benefited from the capacity building initiatives on CCA integration. The staff have increased capacity on CCA integration and are being used as resource persons for follow up programmes on CCA and resilience. COBRA training of trainers provided to 45 district sectoral staff in programme districts has made them champions of resilience/adaptation capacity building, district planning and budgeting. This helped project staff and communities to develop Community Based Adaptation Plans that have contributed to effective mainstreaming of CCA into development planning processes at district levels.

The project supported 3 national-level departments (EAD, MEPD and LDF) for them to facilitate capacity building to district staff to effectively integrate CCA strategies into the DDPs (2017 - 2022). 30 national level Government staff (21 men and 9 women), and 55 district staff (19 women and 36 men) benefited from the capacity building initiatives on CCA costing and integration into sector strategies. 33 district-level staff and other stakeholders (13 women and 20 men) were trained in climate costing, budgeting and gender mainstreaming so that they can incorporate issues of budgeting in the district plans.

32 district staff (11 women and 21 men) were trained in environmental screening and safeguards in order to integrate CCA in district level development planning. Environmental safeguards integrating climate change adaptation were developed in liaison with LDF and have been adopted by District Councils. The integration of CCA in these planning tools is being adopted by the government, thus it has provided a significant basis for the sustainability of project results.

Based on these achievements **rating 6 (highly satisfactory) was awarded to Outcome 1.** For the linkages with the AMAT outcomes and indicators See Annex 7.

Outcome 2. Diversified and strengthened livelihoods and sources of income for vulnerable people in target areas. The target for the first indicator was to diversify and improve the livelihoods of 5,800 households. The project reached to some 8,465 households directly and demonstrated various adaptation techniques. The achievements are given in Annex 7- Table 1. The project worked in 13 TAs and covered 101 villages and covered 5,084 female households and 3,381 male head households, total 8,465). The total number of 88 Savings & Loans Groups with the membership of 2,328 members (1,622 females) were organized/made functional. The project assisted seven groups to register with the MITT in the form of cooperatives benefitting 1,225 members (males 553, females 840). These community structures ensure sustainability.

Highly lauded activity of the project was irrigation schemes (gravity flow in Nkhata Bay and boreholes operated with solar power system) and demonstrated irrigated agriculture on 145 ha, benefitting 695 female-headed households and 370 male-headed households. The irrigated agriculture is a lifeline in highly drought-stricken areas, e.g., Ntcheu district. The irrigated agriculture enabled the farmers to grow more than one crop per year and grow high value and highly nutritious vegetables. The project was instrumental in developing 35 fish ponds, benefitting 367 female- and 354 male-headed households. The impact of this intervention is documented in **Section 3.3.7 on Impacts**. The other most important activity was the drilling of boreholes and the installation of water pumps for the household water supply. The project installed 36 new water pumps benefitting 10,249 households of which 6,070 are female-headed households.

The other highly lauded activity was the support to apiculture. The project organized 35 beekeeping groups and provided 455 bee hives along with necessary equipment and protective clothing and training. Besides sale of honey, the communities are multiplying the bee hives and at the time of TE, these were 585. The female

members in the beekeeping groups are 400. So far, the community has produced 8,562 kg of honey and earned MWK 49.47 on account of sale of honey. Besides honey, the bees also provide pollination service, which always remains un-documented. Due to cross-pollination, the crop, fruit and vegetable production is increased from 50 to 100%. The communities are not yet aware of other bee products, such as beewax, pollen and royal jelly,

In Nkhata Bay, the project assisted 30 banana groups with a total membership of 600, of which 400 are female-headed households. So far, the community has planted banana suckers on 2,000 ha. The project assisted communities to plant improved varieties of citrus and mango and so far, 9,956 seedlings of citrus and 5,364 seedlings of mango have been planted. Likewise, the project assisted the communities to raise tree nurseries and sell seedlings to farmers. In this way, the project has raised 1.36 million tree saplings and has planted 957,074 saplings. The sale of tree saplings in the project area has emerged a new business and during the project life, the communities sold 242,000 saplings. The local communities are self-conserving the replanted areas and prohibit grazing in planted areas at the communal level. The estimated survival rates of trees planted in the districts are Nkhata Bay (67%), Ntcheu (69%) and Zomba (71.5%). The survival rates are for all the trees planted during the past 3-4 years. The survival rates for the trees planted during 2019 are as follows: Nkhata Bay (94%), Ntcheu (90%) and Zomba (92%). The survival rates are on the higher side because the trees have been planted recently and Malawi is in rainy season at present, but the rates may reduce as the seasons changes to dry.

The livestock sector plays an important role in household food security and animals are considered as banks of the poor farmers. The project organized 46 livestock groups, benefitting 1,186 households, of which 804 were females. The project has provided 1,284 goats to members and now the strength of flock is 2,754. The project provided 343 weaners and now the number has grown to 1,184. Likewise, to a group in Nkhata Bay, the project provided 200 broilers and material for constructing one room poultry-shed, and now in Nkhata Bay, the group is registered and after a period of about two years, poultry farm is consisting of 1,000 birds, and the members are expecting to earn MWK 150,000 per member at the end of 2019.

In Zomba, the project also assisted the groups in making and selling fuel-efficient cookstoves, which is a key intervention to scale down fuel-wood harvesting and charcoal production.

The break-down of all these interventions is given in **Annex 7- Table 1**. Unfortunately, the project did not calculate the monetary benefits occurring to communities, however, based on the community consultations, several impacts were recorded which are given in **Section 3.3.7- Impacts**.

The project established six Adaptation Learning Centres in the districts, which would serve as platforms for communities, GoM and donors to promote adaptation. At some locations, the buildings are in the last stages of completion and likely to be completed by the closure of the project.

The second indicator for this outcome was *"relevant risk information disseminated to stakeholders".* Awareness meetings on weather forecast information were carried out with 4,060 households (2,436 women and 1624 men) in all the programme districts. The seasonal forecasts were made and disseminated every season before the rainy season and the contribution of this project to the process enabled implementation of adaptation plans in outcome 2 and safeguarding communities from climate risks. The project engaged DCCMS to train farmers and communities in the programme districts on weather forecasting. The published reports demonstrate results of climate forecasts made traditionally and by using various climate models. The training was imparted to 800 farmers and communities (480 women and 320 men) representing their fellow beneficiaries. These trainings helped the communities to understand the dynamics of climate change and the use of weather forecasts prepared on scientific lines for timing of various agricultural practices and making early preparations for disaster risk management.

80% of the target households (4,640 – 2,784 women and 1,856 women) initially started receiving localized climate risk information regularly from DCCMS through national radios, community radios, and newspapers compared to the 70% project target. At present 90% households (3,132 female-headed) are currently receiving regular 5-day localized weather and climate risk information. The communities informed that they particularly use these forecasts for appropriate timing for planting.

The project is collaborating with a GCF funded M-CLIMES initiative in supporting the dissemination of weather forecast information through radio spot messages and phone SMS and community awareness meetings. The GCF supported initiative is further investing in Participatory Integrated Climate Services for Agriculture (PICSA), a tool which prepares farmers to make an informed decision before the onset of rains and will greatly supplement and complement results from this project.

The project exceeded expectations against this outcome, **therefore, Outcome 2 is also awarded rating 6**. For linkages with AMAT outcomes and indicators, see Annex 7.

Outcome 3. Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas. There were two indicators to measure this outcome. The first indicator was *"the number of development of frameworks and sector strategies that include budget allocation targets for adaptation".* At the macro-level, the project facilitated advocacy for CCA and provided inputs for the following policy documents:

1. Malawi Growth and Development Strategy III (2018-2023)
2. District Development Plans for 3 programme districts
3. National Resilience Strategy
4. Expenditure Review on climate change
5. Preparation of COBRA
6. Establishment of National Climate Change Management Fund
7. Community-Based Management Plans
8. Community Managed Disaster Risk Reduction Plans
9. Sectoral Guidelines for Integration of Climate Change Adaptation in Development Planning
10. Guidelines for analyzing climate change budgets in the districts
11. State of Environment and Outlook Report Ntcheu District

The MGDS III identified the following major projects in agriculture, water development & climate change:

- Shire valley transformation programme (water supply and irrigation)
- Green Belt Initiative
- Small Farm Irrigation Project
- Construction of new water reservoir on Likhubula River in Mulanje to Blantyre
- Agriculture infrastructure and youth in agribusiness project
- Combating deforestation and forest degradation for sustainable rural development
- Lake Malawi water supply project
- Lilongwe water project

The other priority areas identified by MGDS III are education, transport and infrastructure development, health and population management and tourism, which indirectly support poverty alleviation and human development and are important elements in poverty-environment nexus.

The second indicator to measure the achievements of this outcome was *"number and type of targeted institutions with increased adaptive capacity to minimise exposure to climate variability".* The Project supported the mainstreaming of climate change resilience and adaptation in the design of MGDS III (2018 - 2023). All the inputs from the project were adopted and included in the climate change theme of the strategy. It was launched in March 2018 for implementation.

The Project supported various training sessions on review and updating of guidelines for environmental safeguards and screening tools utilized by LDF and Public Works Programme. A total of 35 district staff were trained (14 women and 21 men). This resulted in the actual review and updating of environmental safeguards and screening tools by incorporating CCA concepts.

The project supported climate change adaptation costing work by supporting a discourse on the establishment of the NCCF for Malawi. A Task-force was formed, a stakeholder consultative workshop conducted and a road

map for the establishment of the fund was developed. The MGDS III which is a national medium-term development plan upon which budgeting and resource allocations are based, is now under implementation with CCA indicators and projects of local authorities are approved with CCA safeguards.

In 2018, the project commissioned a study on the geo-spatial mapping of CCA in programme districts. The contents of the report are a bit away from its title but it documents the Net Profit Value (NPV) and Internal Rate of Return (IRR) of various interventions, which give an insight about the profitability of the interventions. The reults are discussed in Section 3.3.7.

In 2018, the project engaged the Association of Environmental Journalists at the national level through a media tour that enabled to publish CCA best practices and lessons learned in CCA in newspapers and relayed success stories at radio. Zomba District also produced 3 newspaper articles and Nkhatabay produced 5 newspaper articles. A video documentary has been also produced by the project (PIR 2018).

All three district councils conducted study tours for staff and farmers. Nkhata Bay team visited Machinga, Zomba, and Ntcheu; Ntcheu team visited Machinga and Zomba, and the Zomba team visited Mulanje. These visits, for both communities and staff, enabled them to learn and acquire new experience, knowledge and skills on successful projects under implementation (PIR, 2018).

Based on these achievement **rating 6 (highly satisfactory) was awarded to Outcome 3.** See Annex 7 for the linkages with the AMAT outcomes and indicators.

3.3.2 Relevance

Malawi is a small open economy in Sub-Saharan Africa with a per capita GNI of just US $320 (in 2016), one of the lowest in the world. Per capita income has grown at an average of little more than 1.5 percent between 1995 and 2014, below the average of 2.8 percent for non-resource-rich African economies. Malawi remains an outlier even compared to its peers that are geographically and demographically similar and were at a similar stage of development in 1995.

Malawi's economy is dominated by the agricultural sector, which accounts for about a third of GDP, and drives livelihoods for two-thirds of its population. Over the past decades, the country's development progress has been negatively affected by shocks leaving the country in a cycle of vulnerability. Both climate-related external shocks, and domestic political and governance shocks, have collectively contributed to economic stagnation and a low pace of poverty reduction. Considering a climate-resilient housing structure as an indicator of poverty, a baseline study concluded in 2017[19], supported by the project, reported that the grass thatched houses still comprise 66% in Zomba, 62% in Ntcheu and 25% in Nkhata Bay and some 22-39% houses have mud-walls[20].

Food insecurity in Malawi remains widespread, especially among the rural poor. In 2013, 81 percent of poor rural households consumed fewer than 2,100 kilocalories per capita per day (kcal/person/day), considered the benchmark a person needs to lead a healthy life. Not surprisingly, in 2013, 65 percent of all households (and 84 percent of rural households) reported experiencing food insecurity for at least 1 month per year—a 15 percentage point increase since 2010. In 2019, the World Food Programme estimated 37% stunting for children under 5 in Malawi[21]. During July to September 2019 – around 0.67 million people in Malawi were estimated to be in IPC Phase 3 (Crisis) and required urgent humanitarian assistance. 2.9 million people were estimated to be in Integrated Phase Classification (IPC) Phase 2 (Stress) and required livelihood support. In the projected period, which covered the lean season from October 2019 to March 2020, 1.06 million people were estimated to be in IPC Phase 3, and 3.58 million people were estimated to be in IPC Phase 2. The districts that were classified under

[19] *A Baseline Study and Development of Monitoring, Evaluation and Learning Systems for ADAPT Plan Project*

[20] *During FGDs, all the communalities reported having a climate resilient house (brick walls with iron sheets) as a priority coping mechanism, hence it is considered as a poverty indicator.*

[21] *https://docs.wfp.org/api/documents/WFP-0000109791/download/?_ga=2.210240085.1706904074.1579615969-805075671.1579615969*

Phase 3 were 3 out of 15 districts which required urgent action. The most affected districts are in the southern region, and are affected by the floods. The main drivers of food insecurity in Malawi in 2019 include floods, dry spells, infestations of the Fall Armyworm, and high prices for staple foods compared to last year and the 5-year average[22].

The increasing demand for energy, food and construction purposes has led to the degradation of forests. The percentage cover of forests has decreased from 41% in 1990 to 35% in 2008 (whilst anecdotal evidence from the Department of Forestry suggests an even higher rate of loss) – partly due to the fact that 98.7% of the population depend on solid fuels (fuelwood and charcoal) because – even when it is available – electricity is unaffordable.

The baseline study commissioned by the project in 2017, reported that 99% of respondents in Zomba, 78% in Ntcheu and 74% in Nkhata Bay reported that climate has changed in these areas. Increased climate variations experienced in the form of prolonged dry spells, droughts, floods and temperature variability, have compounded the stress on the natural resource base, in turn negatively affecting the performance of sectors such as water and irrigation, agriculture, natural resources and energy, thereby aggravating poverty, especially for the already vulnerable population in marginal areas. An increase in variable weather patterns, notably dry spells during the main growing season, has also caused localized food insecurity (despite the fact that enough maize is grown to secure "national food security"). After both the 2011-12 and 2012-13 cropping seasons some 1.9 million people were reported as food insecure, often in areas that had already been repeatedly hit by dry spells which caused food deficits.

The baseline study commissioned by the project, on the extent of climate change revealed low rainfall, change in rainfall pattern, dry spells and poor distribution of rainfall as the major indicators of climate change, low rainfall was reported the highest in terms of overall indicators of climate change and this was at 75% followed by late start of rainfall at 73%. The trend was almost the same in all three districts. Dry spell and poor rainfall distribution featured high across the three districts and floods are experienced more in Zomba and Nkhata Bay.

The baseline study respondents reported that the overall effects of climate change were; crop failure and destruction (91%) and (60%) respectively, outbreak of pests and diseases (27% response), farm loss (27% response), thefts (17% response), loss of soil fertility (14% response), increased price of foodstuff (12% response) and loss of infrastructure (8% response). In all three districts, crop diversification, and conservation of natural resources and adoption of irrigation were found dominating at the household level as a mechanism of adapting to climate change. Income diversification, the practice of agroforestry, conservation agriculture, planting of early maturing crops were found to be practiced at the household level though at a moderate level. Manure making, planting of drought-resistant varieties, digging of deeper wells and livestock keeping were among the adaptation activities that were also practiced at the household level. A small population also reported charcoal making to earn money as a mean of coping mechanism.

The project has played an important role both at the macro- and micro-level. It has supported the major frameworks such as MGDS III, NCCF, climate expenditure analyses, various strategies, and DDPs. At the community level, the project has benefited some 8,465 households against a given target of 5,800 households. The weather forecast information is being provided to the communities for taking timely decisions in farming.

Keeping in view the issues that Malawi was facing at the national level in the area of climate change-led poverty and the lack of technical and financial resources by the vulnerable groups in the three programme “hot spot” districts, the project was designed, and it was Highly Relevant to the needs of Malawi at the national as well as district level and this area of action for demonstrating and upscaling CCA models remains **Relevant.**

[22] *https://reliefweb.int/report/malawi/malawi-acute-food-insecurity-july-september-2019-and-projection-october-2019-march*

3.3.3 Effectiveness and Efficiency

Effectiveness

The project fully achieved its targets by its closure in terms of technical and financial results. As mentioned earlier, the project exceeded expectations and reached to 8,465 households against a target of 5,800 as per ProDoc. The major reason of surpassing the targets is that all the activities, especially under Outcome 2 provided immediate monetary gains to communities on long-term basis, thus the participation of communities exceeded expectations. It supported the GoM in the preparation of MGDS III, three district plans, conducting expenditure surveys on climate change and streamlining CCA in plans and policies for the future. The capacity of local communities was developed by organizing them in the form of groups, cooperatives and Savings & Loan schemes. **The schemes implemented at the local level are financially self-sustainable** as the communities have imposed membership fees and operational/user charges on members.

The project supported climate change adaptation costing work by supporting a discourse on the establishment of the NCCF for Malawi. A Task-force was formed, a stakeholder consultative workshop conducted and a roadmap for the establishment of the fund was developed. The MGDS III which is a national medium-term development plan upon which budgeting and resource allocation are based, is now under implementation with CCA indicators and projects of local authorities are being approved with CCA safeguards.

The management arrangements were in place at the national and district levels and communication between primary project stakeholders is active and clear. The Project Board held meetings regularly and provided relevant guidance for project implementation. Field visits were conducted by UNDP, Project Manager and staff of stakeholder ministries and corrective actions were taken.

The overall financial delivery of the project was 86%- GEF delivery 91%. Delivery of UNDP funds at the time of TE was 60% but likely to increase with the inclusion of expenditures of the last quarter of 2019. The government co-financing in the form of staff cost, provision of office space and vehicle and parallel funds for various schemes in Nkhata Bay and Zomba was US $ 5,180,939 and that of community contribution was US $ 601,645. The community contribution is in the form of the provision of land and labour.

Monitoring and evaluation systems were reasonably well, however, it required strengthening at the district levels. The project did not document the impact in terms of increase of household income, however, a survey is planned in 2020 to document the impact and changes in Resilience Index of participating communities.

The Project's stakeholder engagement plan was well written, and it was implemented in letter and spirit and the national ministries and district governments proactively participated. The contractors provided civil works for the installation of solar system and construction of Adaptation Learning Centres. Where capacity was not found, the project engaged consultants/consultant firms to undertake special studies.

Reporting was carried out in a timely manner, but PIRs did not aggregate data at the national level and adaptive management changes were not always reported, though these were mentioned in the Field Visit reports.

The NIM modality and strategy of building and utilizing capacities at the district level proved to be cost-effective and it promoted country ownership. In future projects, such a strategy could be utilized with the provision of District Coordinators and M&E Officers at the district level. Technically, there is a need to promote no-tillage/minimum tillage, use of draught animals for ploughing and water-lifting from dug-wells, wind-powered water pumps where possible, training of artisans in repair of solar power systems, integrated pest management for pest control, provision of high-quality seeds, value addition and development of input-output agricultural markets at the local level.

The provision of irrigation schemes has been a flagship intervention in the project, and it was reported that the cropping intensity in the irrigated areas has been doubled and vegetables are also grown for household consumption and sale in the cities. The interventions in the area of livestock (pig, goat and poultry rearing) and non-agricultural livelihood means, such as tailoring and making bakery products have been helpful in solving the

issues of food and nutrition security and also for meeting the household needs. These interventions are financially sustainable as discussed in Section 3.3.6.

The availability of water for irrigation has resulted in the appreciation of the cost of land, e.g., the rent of land for 0.1 ha plot increased from MWK 5,000 to MWK 10,000 per season. The consultant asked in all the communities, whether the land is available for sale in irrigated areas, but no one is prepared to do so as it has become bread and butter of the household. The achievements of the project under Outcome 2 "diversification and improvement of livelihoods" have been summarized in numerical terms in Annex 7- Table 1 and the impacts recorded in Section 3.3.7. The major positive unintended outcome of these interventions has been the reduction in GBV instances, women's economic empowerment and enhancement of agricultural biodiversity.

Another element of sustainability of CCA interventions is the availability of duty bearers trained in CCA. The project trained 150 duty bearers in mainstreaming CCA approaches. The staff have increased capacity on CCA integration and are being used as resource persons to follow up programmes on CCA and resilience. COBRA training of trainers provided to 45 district sectoral staff in programme districts has made them champions of resilience/adaptation capacity building, district planning and budgeting.

Environmental safeguards integrating climate change adaptation were developed in liaison with LDF and have been adopted by District Councils. The integration of CCA in these planning tools is being adopted by the government, has provided a significant basis for the sustainability of project results.

Awareness meetings on weather forecast information were provided to almost 90% of the beneficiaries. The seasonal forecast was made and disseminated every season before the onset of rains and the contribution of this project to the process enabled the implementation of adaptation plans in outcome 2 and safeguarding communities climate risks.

The project has published its success story on the internet https://undp-adaptation.exposure.co/a-call-for-climate-action which has been also published at the Relieweb https://reliefweb.int/report/malawi/call-climate-action-climate-change-impacts-are-increasingly-observed-and-felt

Thus keeping in view the project achievements, **a rating of 6 (highly satisfactory)** was awarded to the effectiveness.

Efficiency

Financial Efficiency

The project design was to support the decentralization process and provide funds to the District Councils, through EAD. On the project payroll, there was only the Project Manager and an Admin. & Finance Assistant. All the technical staff was provided by the District Governments for the implementation of activities. Where needed, individual consultant or consulting firms were engaged to conduct special studies. This approach proved to be highly cost-effective, as it saved all the project staff cost thus making available more funds for the on-ground implementation of activities. It also helped to build a strong ownership of the GoM. The GoM co-financing in this form plus parallel financing was Us $ US $ 5,180,939. The most important benefit of this approach was the development of trained manpower at the district level to design and implement activities in the field and enhancement of the image of GoM staff among the communities.

However, it was realized that the District Government staff was not well trained in adopting the UNDP/GEF procedures and delays in the preparation of advance requests and implementation of activities occurred, and in this way an opportunity of availability of more Malawi Kwacha in return of US dollars because of abrupt devaluation was lost.

In terms of money available to the project, by considering mid-2014 as the probable date when the project was budgeted and from then until November 2019, the exchange rate went from MWK 400 to MWK 720 against 1 USD. This translates to an overall gain of funds to the project by 720/400*100 = 180%. Assuming that most expenses were in local currency the inflation was also considered while calculating funds available to the project.

The consumer price index increased from approximately 55 in mid-2014 to 120 by the end of 2019. This means, overall cumulated inflation over the project period is 120/55*100 = 218%. By subtracting inflation from the gain (180 - 218 = -38%), it turns out that the project actually had overall 38% less budget in terms of local purchasing value calculated at project end (Fig. 3 and 4).

The exchange rate jumped suddenly soon after the project was approved. So it was a prime time for the project to spend money in 2015 and 2016 but unfortunately it could not utilize this opportunity as the expenditure in 2015 was only US $ 170,818 (delivery 70%) and US $ 737,436 (delivery 97%) in 2016 (Table7).

The inflation was gradual and had a smaller effect at the beginning of the project and a larger by the end. Therefore, it may be safe to take an overall average value. If it is done and the inflation is halved the period (90/55*100=163%) as an average of the project period. The resulting net is 180-163 = 17%, which is actually a moderate overall gain in funds.

The ProDoc does not give in detail the costing of key activities, such as irrigation schemes, tree plantation, livestock, etc., so the comparison could not be made to calculate the financial efficiency at the time of budgeting and implementation.

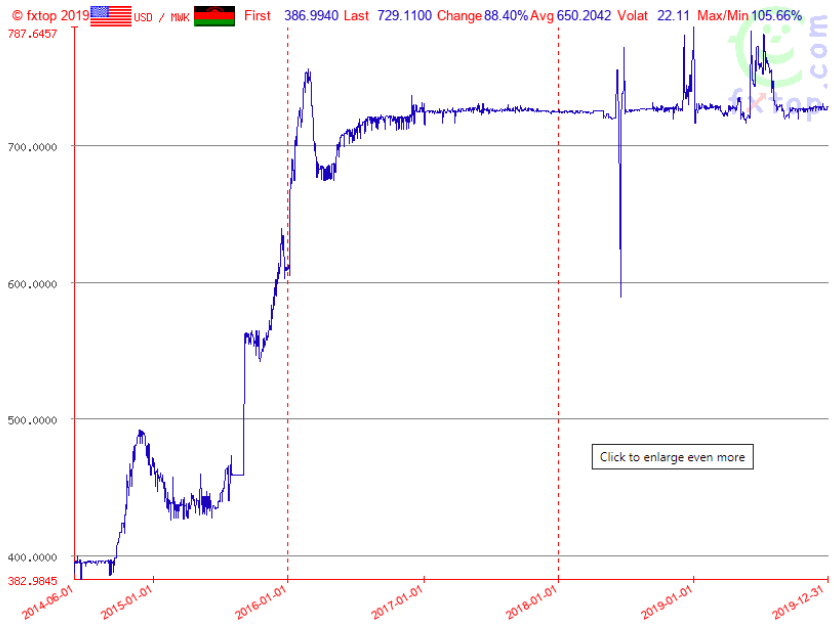

Figure 3. Exchange rate fluctuation (US $ to MWK) from project formulation to implementation (2014 to 2019)

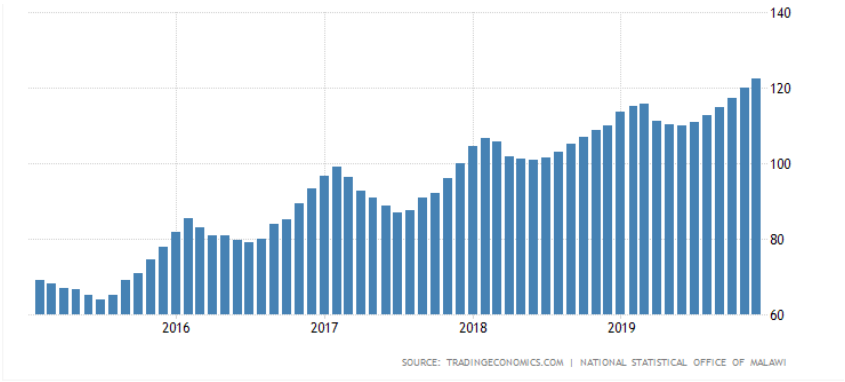

Figure 4. Consumer Price Index in Malawi over the project period (2015-2918)

The project launched a study on the financial analysis of various interventions and the results are interesting. The financial analysis of piggery shows that with proper animal husbandry as recommended in government standards for feed and livestock management, an enterprise that starts with 2 sows (female pigs) and one boar (male pig) can generate USD 11, 370 for the concerned club over a period of five years as shown by the Net Profit Value (NPV) at 12% discount rate. This is more than 670 times the initial investment costs as seen from the IRR[23].

For goat farming, using the 12% discount rate, the NPV from the project point of view for TA Masasa goat enterprise was estimated at US $1,200 for a 5-year period and US $ 2,861 in 7-years which is the period that the initial goats would still have one more year of kidding. If the contributions are removed from the inflows from the project, the net cash flow becomes negative in the first year and achieves an IRR of 70% and 90% for 5-year and 7-year project lifetime, respectively. This means that the goat enterprise would be financially viable, even if four goats were given to individuals than to a large group of 50.

The financial analysis for the fish farming intervention yields a positive final NPV from the total investment point of view of US $2,873 using a discount rate of 12% over a 5-year period. This positive value suggests that the project is sustainable because over the life of the project, the financial benefits will outweigh the financial costs. The IRR could not be calculated because the net cash flow is positive starting from the year one.

The ProDoc mentions the total number of households to be benefited as 5,800. However, it reached to 8,465 households directly and 15,682 indirectly (total number of households 24,147). At the initiation of the project, the communities had a difficult time to understand the project strategies because of high illiteracy levels which was one of the reasons for slow take off of the implementation. According to a recent UNFP population census, the average household size in Malawi is 4.4[24]. Thus the total population benefited from the project was 106,246 persons. The cost of covering one person calculated based on total UNDP and GEF financing, turns out to be US $ 50. Further, the persons who will be benefited because of policy and advocacy interventions in future will lead to further reduction in per person cost.

Thus the project implementation was cost-effective as the project surpassed the targets set in the ProDoc. The reason being that the disaster-affected communities were more eager to contribute resources and implement activities. Besides ensuring food security, the community priority was to construct climate-resilient houses and support children's education. The project made deliberate attempt to select more number of female-headed households as they are the most vulnerable to the ravages of climate change. However, a higher number of male-headed households benefited from the project indirectly and the male:female ratio of beneficiaries was almost equal, after the inclusion of indirect beneficiaries. The project made deliberate efforts during the selection of beneficiaries to have more women (e.g., during learning visits) so that more women are exposed to new knowledge and they become champions in CCA and have full awareness of gender issues (PIR 2018).

Adaptive Actions

In 2015, there was a considerable delay in the opening of the project bank accounts in districts due to procedural hurdles, which delayed implementation. Thus 2015 was almost spent in operationalizing the PMU and opening of bank accounts. In general, there was a concern that the quarterly advances were delayed for a considerable time, especially in the beginning of the project which delayed implementation. The situation was improved to a great extent with the placement of District Coordinators in the District Councils. However, the staff has to learn the UNDP procedures and UNDP should strictly implement the “payment for results” system.

The project undertook adaptive actions to achieve the results, and it recruited District Coordinators at the mid-point of project when it was realized that the coordination and implementation was not at an acceptable level. This action helped in speeding up implementation and reporting of the results.

[23] *Geospatial analysis and mapping for climate change adaptation activities of adapt-plan project, ADAPT PLAN 2019)*

[24] *https://malawi.unfpa.org/sites/default/files/resource-pdf/2018%20Census%20Preliminary%20Report.pdf*

Ntcheu district is a drought prone area and shortages of water occur frequently. It was observed by the project team that the boreholes were not meeting the water requirements of the communities. The project took a corrective action and reworked on the boreholes to increase the depth which solved the problem.

In Nkhata Bay a piggery group was not performing and the resources were being misused by the chieftain. At the notice of a UNDP-EAD monitoring team, the resources were diverted to another group and the scheme was made functional.

The project conducted an exercise to map all the operational projects in all the districts and facilitated to set up Coordination Units at the district level in which all the projects in a district participated and shared implementation and CCA learnings and to further enhance efficiency and effectiveness. This also helped to avoid duplication of activities. The project supported a working group at the national level to streamline adaptation in development. Likewise, it supported GoM to host 12th Annual International Conference on Community Based Adaptation (CBA 12) in June 2018. It promoted exchange visits of staff and farmers to other projects in other districts. The South-South Cooperation was supported by facilitating a visit of experts to Zambia in 2016 to learn the experiences of other countries. All these approaches enabled to widely spread the CCA messages.

In Zomba, the project also made deliberate efforts to set up activities that are mainly involving the youth networks in the 'hot spot' areas. This included advocacy on environment management and the establishment of nurseries to raise seedlings (PIR 2018) and it was a highly successful intervention.

It is foreseen that in future the issue of sale/purchase and renting of land, distribution of water among the beneficiaries and eagerness of nearby farmers to participate in the irrigation schemes would arise, which may affect efficiency. The sectoral staff and VDCs need to be vigilant with such issues and should develop mechanisms to enhance water availability and expansion of irrigation schemes. The project could not implement the end-line survey during the project life, and it is proposed to be conducted in 2020. This is likely to reveal many other economic impacts of the activities.

Keeping in view the pace of implementation of activities and handling of emerging issues, **a rating of 6 (Highly Satisfactory) has been awarded to efficiency.**

3.3.4 Country Ownership

The project was implemented under NIM modality by the EAD. All the sectoral staff for implementation was provided by the District Councils. At the national level, the project was instrumental in providing inputs for the MGDS III, which is a medium-term Development Framework and DDPs. These documents identify the priority projects in the area of climate change for implementation in the future. The project played a key role in the design and development of the National Climate Change Fund, sectoral guidelines for integrating climate change adaptation in development planning, guidelines for analysing climate change budgets in the districts and expenditure review on climate change and state of environment outlook report. For details see Section 3.3.1. These documents provide leverage to EAD to advocate and mobilize more funds for climate change mitigation and adaptation. All these studies were commissioned by the national entity EAD under the NIM modality, therefore, the ownership of the products of the project are fully owned by the GoM. Further, the national and district staff who have been trained in addressing climate change issues and promoting adaptation have become the assets of GoM. They are the custodians of CCA knowledge and are fully equipped to upscale CCA.

At the district level, the three District Councils were the recipient of a major chunk of funds, which were used to implement the sectoral programs at the community level. The type of activities conducted and the achievements in the three districts is given in Annex 7 Table 1. Thus the project provided an opportunity to the District Councils and its staff to demonstrate their worth in the community.

The strongest ownership of the project activities lies in the community who feel the project as a saviour of their lives and assets. In all the FGDs conducted in districts, the communities rated the project's contribution as timely and highly relevant. The communities are already harvesting the dividends of the project interventions such as irrigation schemes, honey, fish, livestock, etc. (see Section 3.3.7 for economic impacts).

3.3.5 Mainstreaming

The project worked with males and females, boys and girls in the project area. In fact, more women benefitted from all the interventions than males. The reason being that males are generally gone to other districts in search of jobs and the females have to shoulder the responsibility of running the house. Further, the project informed that while selecting beneficiaries, preference was given to the vulnerable women-headed households over the male-headed households as women are comparatively more vulnerable than males and have limited options to sustain. Further, the preference was also given to vulnerable elderly and special persons, though they were limited in numbers. The total number of households that benefited from the project was 8,465, of which 40% were males and 60% females. Almost the same trend was observed in all the activities. During the FGDs, especially a question was asked whether there was any discrimination on sex, sect, tribe, etc., and no one reported any case. Rather the communities were found to be more cohesive taking actions jointly to implement project activities. It was a surprise to the consultant when the members informed that they work in a group or cooperative on turn basis (livestock, poultry, apiculture, maintenance of fish ponds, etc.) without any monetary gain and wait for the assets to accumulate and become profitable. Likewise, in irrigation schemes, the communities have allocated 0.1 ha of land and are sharing water resources on a turn basis. Except for once in a while issue of the use of water, no major dispute appeared in the FGDs and the communities are working in harmony and a cohesive manner.

Besides environmental conservation and CCA, the project assisted the communities to organize themselves in the form of Savings & Loan Groups (88 groups). These groups are providing loans to the members on a lower and affordable interest rate (10%- to be returned in 3-6 months). This window of loan is an opportunity to the communities to take care of their urgent priorities or do some other livelihood business. The project has also supported to communities to register themselves in the form of cooperatives (3 in Zomba and 4 in Nkhata Bay) with the MITT. This provides the members with a legal cover and security of their shares. Besides these, all the activities are performed in the form of a group. At the time of initiation, the households were provided a chance to select any group they desire. This has created a sense of *"working together means winning together*" among the communities.

In all the FGDs, a question regarding Gender Based Violence (GBV) at the household level was asked, and no one reported any case of GBV, except minor issues in the household. In general, the communities informed that the cases of GBV were reduced as the families have more income to deal with their day to day expenses, children's education and for improving housing structures. The major dispute in a home was pointed out to be the shortage of cash flow, which the project helped to resolve. During FGDs a question was asked about who keeps the money, and controls expenditures, and the answer was "women"- the reason being that the men often go to work within the district or other places and the women have to run the house. No issue of human rights were brought to the attention of the consultant and the project reports also do not mention any activity conducted which is related to human rights.

3.3.6 Sustainability

In March 2019, the project conducted a workshop on the sustainability of interventions after the completion of the project. In the process of developing a sustainability plan, district level and community governance structures that is Village Development Committees (VDC), Area Development Committees (ADC), Community Based Organisations (CBO), District Executive Committee (DEC), District Environment Sub-committee (DESC), Council Service Committees and Full Council members participated. A list of actions to ensure sustainability was prepared and the risks to sustainability were discussed.

The sustainability of any project is judged from four perspectives, viz., financial, socio-economic, institutional and environmental, which are discussed as follows:

3.3.6.1 Financial Risks

The project provided catalytic support to the GoM, District Councils and the communities to take a proactive role in CCA. The macro-level policy documents which have been supported by the project, such as MGDS III, climate expenditure review, DDPs and resilient strategy provide instruments to various departments and District Councils to formulate more projects on CCA and mobilize funds from the government and donors. Some of the key projects in CCA are identified in MGDS III as well as District Plans, therefore, it is anticipated that funding will be available for CCA not only for the ADAPT PLAN districts but also for others. The scale of the problem is certainly very large which requires more funds.

During implementation of ADAPT PLAN, the District Councils provided co-financing in the form of allocating sectoral staff for the implementation of activities, as well as for on the ground implementation of some projects, e.g., in Nkhata Bay district, the contribution (parallel financing) provided by the government for irrigation schemes in the entire districts is noteworthy. Thus it is anticipated that the central and district governments will continue to provide financing for the CCA activities. Likewise, the community contribution in the form of land allocated for CCA activities and labour is noteworthy, and it is likely that such support will continue for other projects as well. However, there are some concerns for the mobilization of district teams in the absence of an operational budget.

Many of the community schemes **introduced by the project are self-sustainable**. For example, all the irrigation schemes are managed by community groups. The community has implemented the membership (MWK 10,000) as well as water usage fee per season (MWK 2,000 to 5,000). In addition, the communities have introduced the system of revenue collection from electricity usage to charge mobile phones and other household equipment (shaving machines). The charge varies from MWK 500 to MWK 1,000 per charge and the communities are making MWK 15,000 to MWK 30,000 per month. This fund is being used to pay the monthly charge of the watchman as well as for the maintenance cost of the equipment. The communities are planning to extend the electric supply to households when it is available which will further enhance community resources. There is no issue of financial risks in the irrigation schemes.

In the case of poultry scheme in Nkhata Bay district, the project initially provided 200 chicks, some feed, and material for the construction of one-room poultry shed. This group is now registered in the form of a cooperative and is maintaining rearing of 1,000 birds in four sheds which is a very good example of upscaling. The dividend of each member in this group by the end of December 2019 is expected to be around MWK 150,000. All the work in the maintenance of poultry sheds is being done by the members on a rotational basis without any charge which demonstrates the high spirit and interest of communities. The bakery and tailoring groups in Nkhata Bay are other self-sustainable groups without any issue of cash flow.

The honey and livestock groups in all the districts are also self-sustainable, rather the numbers are increasing. The communities are multiplying pigs and goats and also maintaining their families from the proceeds of sales. For example, the project provided 455 beehives in the three districts, and at the time of evaluation these were 585. Likewise, the project provided 1,284 goats and now the communities have 2,754 goats in total. The number of pigs in target communities increased from 343 to 1,938. The sale of plant saplings has emerged as a new business in the project area, and during project life, the communities sold 242,000 saplings, meaning that the communities are motivated to grow more number of trees at their own. Fish ponds, though not multiplied by the communities, are making profits. It was informed in village Nanyere, TA Mwambo, district Zomba that a group of 30 members is maintaining a fish pond of 400 sq. meter. The project provided 2,000 fingerlings that were raised by the group and fish has been harvested twice and sold at the rate of MWK 1,000 per kg. Each time as much as 274 kg of fish was harvested. The first time, the community shared the dividend of MWK 1,000 per member and the rest of the money was used to purchase more fingerlings. The second time, from the sale proceed, they purchased goats and distributed among themselves (2 goats per member). Thus the community is maintaining the fish pond as well as growing its assets and no external assistance is required.

The communities have received the seeds of drought-resistant maize varieties as well as seeds of vegetables and they are maintaining the seed stocks at their own. However, the natural disasters and outbreak of pests could impose serious threats, but then the GoM and donors trigger their emergency and early recovery programmes.

The communities having increased income resources and assets should make them able to withstand such hazards at their own.

3.3.6.2 Socio-Economic Risks

As discussed in Section 3.3.5, the project has enhanced the social cohesiveness in the programme districts. The project conducted a need assessment in the beginning, and in the programme villages, the people were given a chance to join any group at their free choice, such as irrigation, honey, tree plantation, fruit tree plantation, bakery, tailoring, fisheries, poultry, goats, piggeries, agriculture, etc. This created a sense of ownership among the communities. All the groups established their codes of conduct and principles of working in the group and profit-sharing. **The key is to implement the code of conduct of the group in letter and spirit to avoid any conflict among the group members and keep the power-hungry people under control**. The communities also organized Savings & Loan Groups which are promoting savings and providing funds to meet the urgent needs of communities. The project assisted the communities to get themselves registered in the form of cooperatives, and so far, 7 are registered, thus formalizing the community structures and protecting the rights of the members.

The decentralization structure at the district provides very good forums at all levels. It is well documented in ProDoc Fig. 5. For example, at the village level, there is a Village Development Committee, Village Civil Protection Committee, Village NRM Committee and sub-committees such as wetlands. The village is headed by a Village Headman. The members of VDCs form Area Development Committee (ADC) at the Traditional Authority level which is headed by the tribal chieftain. The ADCs form the District Executive Committee (DEC), which has a sub-committee on Environment and a committee on civil protection. The DEC is headed by the District Council. Such a comprehensive structure at the district level ensures the effectiveness of the system. Regarding economic issues, in general, the people are resource-poor and poverty is visibly evident, in the form of their housing structures, type of clothing and shoes and lack of community institutions such as schools and health institutions at the village level. Poverty is a root cause of many social problems, which are beyond the scope of this project to discuss. All the project households are benefiting from one or the other activity in monetary terms, therefore, as such in the project villages, there is no socio-economic risk to sustainability and the community governance structures are working efficiently.

3.3.6.3 Institutional Risks

The institutional structure at the community and district level is discussed in Section 3.3.6.2, and there seem to be no institutional risk to sustainability. The only minor risk is that the district sectoral staff may not be able to provide effective technical backstopping as was the case during the project's life.

3.3.6.4 Environmental Risks

All the project activities are supporting environmental conservation and agro-biodiversity, thus there is no environmental risk to sustainability.

Keeping in view the above mentioned four parameters, **a rating of 4 (likely)** has been awarded to the sustainability of the project.

3.3.7 Impact

The project launched a study in June 2017 and termed it as the baseline for establishing M&E Framework. This cannot be called as a baseline as at this point the project was already in a mid-point, so the results also reflect the contribution of project activities. According to this study, the most affected people by the ravages of CC are predominantly elderly, disabled, orphans and women. The percentage response was much higher in Zomba, followed by Ntcheu and Nkhata Bay (Fig. 3).

The project also conducted a survey of assets that the sample population had in the three programme districts. The highest percentage reported having cell phones, chairs, radio, tables, beds and matrices. About half of the population had bicycles, whereas a very low population had TV, motorcycles, refrigerator and paraffin lamps (Fig. 4). Regarding housing structure, 62% population in Zomba had grass-thatched houses, followed by Ntcheu (62%) and Nkhata Bay (25%)- rest of the houses had roofs covered with iron-sheets. Likewise, around 22 to 39% houses had mud-walls and the rests were of baked bricks. This indicates that people in Nkhata Bay are perhaps better off than the other districts, which is also evident in Fig. 4 regarding the possession of assets in various districts.

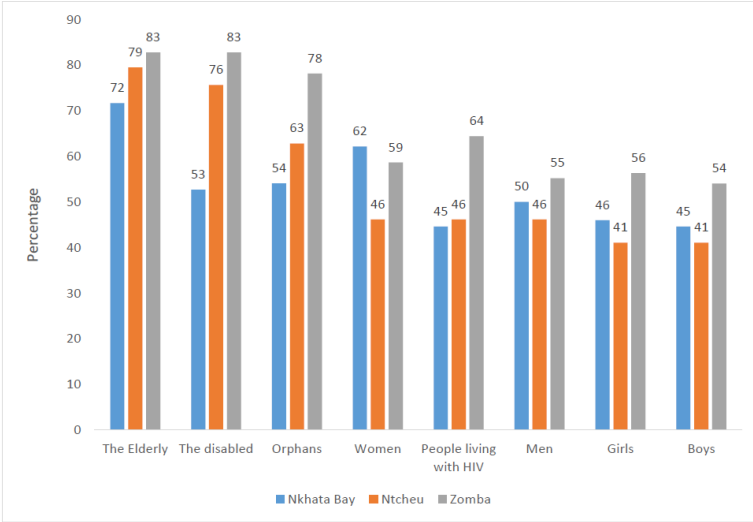

Figure 5. Percent of people vulnerable to climate change in various programme districts (N = 200).

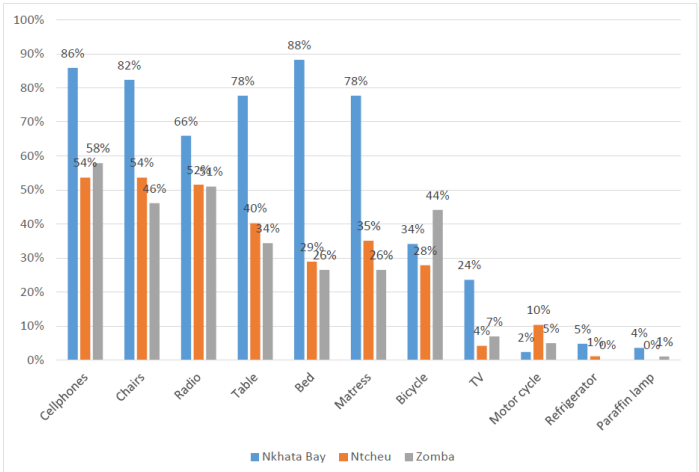

Figure 6. Percent of people having various assets in the programme districts

The study also reported the response of people in programme districts towards the degree of climate change. Some 66.3% people in Zomba reported that the climate in the district has completely changed, followed by Nkhata Bay (47.4%) and Ntcheu (43.9% (Fig. 5). The next highest category was of those people who responded that climate change is occurring gradually, followed by 5 to 13% of people who reported that there was a minimal change. Only 1-5% people reported that they are not aware of any climate change (Fig. 5). This also indicates that 95% people know about climate change.

This study also reported that 61-70% people reported that they receive climate information from the radio. Regarding adaptation measures 61% people reported that they adopt mulching, 48% reported intercropping with legumes, 43% reported reduced tillage and 2% reported using agroforestry as an adaptation practice.

Unfortunately, the project did not conduct the end-line survey, which is now planned in early 2020. Should it have been done, the project impact in terms of CCA adoption could have been much more evident.

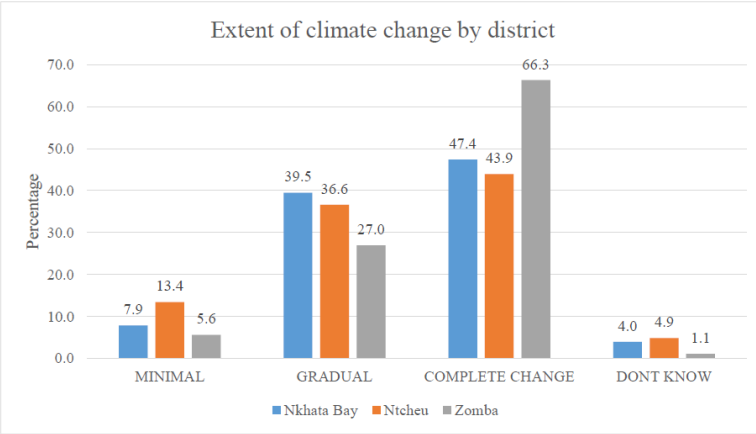

Figure 7. Percent response of people regarding the degree of climate change in various programme districts

The impact of any project at the household level is the immediate result that everyone would like to see. During this study, the following impacts at the household/community levels were recorded:

i. In village Kamchibizi, TA Kabunduli, district Nkhata Bay, a piggery has been registered with the MITT. There are three groups comprising of 20 males and 17 females. The groups received 75 weaners during 2017 and 2018 and construction material for making animal sheds. Of the total number of animals, 15 died due to diseases and 20 full-grown were sold at the rate of MWK 60,000 per animal. The piggery is being maintained at three different places and 10 individual farmers are also maintaining animals borrowed from the piggery. Each farmer is given a pair and in the end the cooperative will get back 50 weaners. The average litter size is 6 and there are two breeding seasons, a pig is full-grown in two years. The piggery size is 75 now, and it is expected that by 2020, it will reach to 150. The cooperative is in the replication mode, and no dividend has been given to any person yet but considering two-third as a survival rate, the cooperative has an asset of MWK 6 million (MWK 162,000 per member). The members work in the piggery as per duty roster, and one member has received veterinarian training to treat the sick animals.

ii. In Chikoma village, Nkhata Bay Disrict, a goats groups (12 members, of which 11 are females) is in operation. The group received 21 goats which have multiplied to 50. Eleven goats were shared with members (2 goats and 1 lamb/member) for multiplication. A goat is full-grown in about nine months and fetches MWK 20,000 to MWK 28,000/goat. A female gives birth to three baby goats which are ready for sale in nine months. Despite being located at the coast of Lake Malawi, people are very poor. They informed that June-November is a dry period for fishing as strong winds are blowing during this time and fishermen avoid going distant places in the lake. Hence, the community has found rearing of goats a highly lucrative alternative means of livelihood.

iii. The irrigation scheme in Chipusire is providing irrigated agriculture facilities and drinking water to 120 households in a drought-stricken/water-deficient area. 10 ha (0.1 ha/household) is under irrigation.

iv. Irrigation scheme in Issa village in Zomba district has 3 boreholes, and 3 water tanks (5,000 liters each), 7 piped water canals and 27 hydrants. The scheme is irrigating 10 ha, landholding of 0.1 ha/household, of which 56 are female-headed households. The maize yield is 400-600 kg/0.1 ha. Onion, tomato, Irish potato, lettuce, okra are the common vegetables that are also grown and sold in the Zomba city market. Irrigated agriculture has made it possible to have more than one crop. The income from 0.1 ha is about MWK 100,000 per year (MWK 70,000 from maize and MWK 30,000 from vegetables). Landless farmers get land on lease for MWK 5,000 per season/0.1 ha.

v. In Mateketa village, TA Mbiza, a solar-based irrigation scheme on 10 ha (75 people are members, each holding 0.1 ha) is in operation. Maize is grown twice a year and the produce is enough for household security. There are 2 boreholes, 6 piped canals and 36 hydrants.

vi. Kadeti irrigation scheme, TA Kabunduli, gravity irrigation scheme is in operation on 13 ha now and they have plans to extend it to 22 ha and grow more high value crop such as Irish potato. Maize, Irish potato, cabbage, tomatoes, and onion are commonly grown. Income from maize has increased from MWK 20,000 /0.1 ha to MWK 35,000/0.1 ha, and now two crops are taken. The rent of 0.1 ha land in the past was MWK 5,000/0.1 ha and now it is MWK 10,000/0.1 ha.

vii. In villages, Chikhali, and Mzizi, TA Mbwana, district Nkhata Bay, a 38 ha gravity flow irrigation scheme is in operation. The scheme called as SASASA Irrigation Scheme has 40 members (7 males and 33 females) and the land allocation per household is 0.1 ha. The water source is a stream that is not perennial, so there is a water shortage in the area in dry season. Each member pays one-time membership fee of MWK 3,000 and a water fee of MWK 2,000 per season. Maize, tomato, onion, potato, garlic, sweet potato and carrots are commonly grown in the irrigated area. Each family earns about MWK 150,000 (MWK 100,000 from maize and MWK 50,000 from vegetables) during a year. In the past, people used to grow cassava, which is a crop of dry areas and remains in the field for a longer time, hence people are shifting to other crops.

viii. In Muhilri village, TA Mbiza, district Zomba, the community has planted 25,000 plants (survival about 10,000) to rehabilitate a hillock through re-planting, regeneration and banning of grazing.

ix. Bee group in Muhiliri village, district Zomba is maintaining an apiary and has harvested honey 6 times in 3 years and harvested as much as 40 kg of honey per hive. The contribution of bees in plant pollination remains un-documented, which is tremendous.

x. In Nkhata Bay, Movya village, TA Kabunduli, the apiary started by 10 members with 21 beehives. The group has sold about 420 kg of honey in 3 years and each member has earned an additional MWK 20,000 and the remaining money was used for expanding the apiary. It is registered as a cooperative and the membership has grown from 10 to 21.

xi. In Issa village, the fish pond is of 350 sq. meter with 1,500 fingerlings. The fish is sold for MWK 2,000/kg and about MWK 350,000 is earned per season.

xii. In Nanyere village, TA Mwambo, a fish pond of 400 sq. meter was started with 2,000 fingerlings, and the group has sold 327 kg of fish. The members used the income to buy goats (2 per household) to increase their assets plus maintenance of the fish pond.

xiii. In village Mdoyi, TA Mbwana, Mhsunguti Poultry Cooperative Society Ltd., is registered with the GoM as a cooperative. It started its operation in 2017 and the project assisted it with 200 chicks, feed, and material for constructing one-room poultry-shed. The group received training from the MITT in cooperative management in 2018. There are 42 members (32 females and 10 males) in the group. The group has sold full-grown birds and used sale proceeds to multiply the birds and construct more rooms. Now the farm size is 1,000 birds and four poultry sheds. The members work on the farm as per duty roster. By the end of December 2019, each member is expecting to have a dividend of MWK 150,000. In addition, the members are also entitled to get a loan of MWK 30,000 at 10% interest rate to be retuned in three months for use of their household needs or to do some other business.

xiv. As a mean of livelihood diversification in dryland area for landless people, in Chikoma village, TA Mbwana, district Nkhata Bay, a bakery group is in operation. There is no bakery in the area. The group comprises of 25 members (6 males and 19 females). The project constructed two rooms, provided wood-fired ovens, material, and trays. The group processes one bag of 25 kg of flour per day and

produces bread of worth MWK 23,000/day and makes a profit of MWK 8,000 per day. The members work as per duty roster and share profit when it amounts to be around MWK 100,000.

In terms of UNDP RBMS terminology, one could think the above mentioned results are at the "outcome", rather than at the "impact" level. However, these are the immediate impacts of the results, as the interventions brought changes in the livelihood of vulnerable communities on long-term basis. The income gains are being used by the communities for the construction of climate-resilient housing structures, providing medical aid to the ill family members and supporting children's education, besides having sufficient nutritiously rich food. The assessment of all the gains in the three districts and pooling of results would reveal major long-term economic and social impacts. Hopefully, the end-line survey which is planned to be conducted in 2020, would capture this information, along with gain in Community Resilience Index.

The project undertook a very good study on value chain of apiculture, goats, pigs, poultry, banana, vegetables and non agro-products in the area, which has identified several entry points for value addition. This report could form the basis for further livelihood diversification and value addition in the programme districts, which would also reduce pressure on natural resources.

The project launched a study on the financial analysis of various interventions and the results are interesting. The financial analysis of piggery shows that with proper animal husbandry as recommended in government standards for feed and livestock management, an enterprise that starts with 2 sows (female pigs) and one boar (male pig) can generate USD 11, 370 for the concerned club over a period of five years as shown by the Net Profit Value (NPV) at 12% discount rate. This is more than 670 times the initial investment costs as seen from the IRR[25].

For goat farming, using the 12 percent discount rate, the NPV from the project point of view for TA Masasa goat enterprise was estimated at US $1,200 for a 5-year period and US $ 2,861 in 7-years which is the period that the initial goats would still have one more year of kidding. If the contributions are removed from the inflows to the project, the net cash flow becomes negative in the first year and achieves an IRR of 70% and 90% for 5-year and 7-year project lifetime, respectively. This means that the goat enterprise would be financially viable, even if the four goats were given to individuals than to a large group of 50.

The financial analysis of fish farming performed for the fish farming intervention yields a positive final NPV from the total investment point of view of US $2,873 using a discount rate of 12 percent over a 5-year period. This positive value suggests that the project is sustainable because over the life of the project, the financial benefits will outweigh the financial costs. The IRR could not be calculated because the net cash flow is positive starting from year one.

All the aforementioned impacts at the household level have also an impact on the community as a whole. For example, the interviewees informed that poverty and lack of income was the main cause of GBV, and as the people are now engaged in productive activities, the GBV has been declined and rarely any GBV incidence is reported. Further, as in all the groups, the majority of the members were females (as men go to other places for work), the project has played a significant role in women economic empowerment. Further, the enhancement of the environment and diversification of agricultural biodiversity is visibly another impact. The bee culture is improving the pollinator density per acre, which will lead to the doubling of the crop yields, especially those of the cross-pollinated crops, fruits and vegetables. All these impacts are visible but need to be quantified in the follow-up impact study.

At the macro (policy) level, the project has contributed in preparing plans, strategies and baseline information on climate change funding and expenditures and trained the national and district staff in climate risk reduction and CCA adoption, which would play a major role in the development of future projects in the area of CCA and thus reducing the vulnerabilities.

[25] *Geospatial analysis and mapping for climate change adaptation activities of adapt-plan project, ADAPT PLAN 2019)*

Keeping in view all the above-mentioned discussion, **the project has been awarded a rating of having a "SIGNIFICANT IMPACT"**

Since the project end-line survey has been delayed, and it is planned to be conducted in 2020, it is recommended that this survey should capture the increase in resilience of communities to climate change (monitoring of Resilience Index) and document the impacts of the project in economic terms, which would help UNDP, GEF and GoM to showcase this project for further fund mobilization.

4 Conclusions, Recommendation & Lessons

Malawi being a predominantly agriculture country is exposed to food and nutrition security because of frequent crop failures due to recurring floods and droughts. The most vulnerable people are the poor, elderly, women and orphans. Majority of the people are still living in mud-walled and grass-thatched housing structures which are prone to fall during heavy rains, wind-storms and floods. The access to energy is extremely limited and 99% population is dependent upon fuel-wood in rural areas and charcoal in urban areas. These are all the signs of a rapid rate of resource degradation and violent conflicts due to environmental degradation. The project was implemented in Ntcheu, Zomba and Nkhata Bay districts. According to IFPRI 2016-17 data, among these, district Ntcheu is the most poverty stricken with 320,900 people living in poverty (Poverty Headcount 54.1%), followed by Zomba with 229,800 people in poverty (Poverty Headcount 55.9%) and Nkhata Bay with 162,600 people in poverty (Poverty Headcount 57.7%)[26].

The frequent occurrence of extreme events and disaster in Malawi, urged UNDP, GEF and the GoM to immediately respond to the urgent climate adaptation needs of the communities so as to enhance and diversify their livelihood options which are climate-resilient. Thus the project was highly relevant to the needs of all the stakeholders. The community consultations and KIIs conducted during the TE revealed that the project is still relevant to the needs of communities and priorities of the GoM and there is a need to replicate and upscale the proven technologies.

The project was implemented from 2015 to 2019 by the EAD following the UNDP NIM modality. All the sectoral and extension staff was provided by the District Councils, which substantially reduced the staff cost. It cost only US $ 467,191, whereas if all the staff were on UNDP payroll, the staff cost could have more than three times. Where needed, the expert support was provided through consultants.

The project has reached to 8,465 households directly against a target of 5,800 set in the project document. Some 15,482 households also benefited indirectly. The male:female ratio of direct beneficiaries was 1:1.5, however, after the inclusion of indirect beneficiaries, the male:female ratio was almost equal. The project facilitated the development of community social infrastructure through the formation of various committees which are responsible for the maintenance and operation of community schemes. It was instrumental in operationalizing 88 Savings and Loan Schemes which are benefiting 2,328 members, of which 1,622 are females and 706 males. As the community groups are maturing, they are being registered as Cooperatives, and so far 3 Cooperatives in Zomba and 4 in Nakhata Bay have been registered with the GoM. The project assisted in the implementation of 10 irrigation schemes, thus bringing 145 ha of land under irrigated agriculture. This has doubled the cropping intensity in the area, and the farmers are earning as much as MWK 100,000 per 0.1 ha of land per household compared with MWK 30,000 in the past. The growing of nutritiously rich vegetables will also help to address the issues of nutritional security. The irrigation schemes have benefited 695 female- and 370 male-headed households. The cost and rental of land in the area has been doubled due to the availability of irrigation water throughout the year. The project assisted in the development of 35 fish ponds benefiting to 721 households. The farmers are now harvesting fish in the water-scarce area, using it as highly nutritious food and the additional income is being used for creating more productive assets, such as the purchase of goats. However, one major gap, observed in the area is the non-existence of the vibrant agriculture input and output markets, which warrants future interventions in this regard. There is a great deal of scope for value addition to minimize post-harvest losses and group marketing to maximize economic benefits for the communities.

[26] *http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/133311*

A World Bank study published in 2018, concluded that agricultural markets in Malawi are particularly thin and weak. For example, tobacco and rice are the only crops grown primarily for sale, with 96% and 58% producers, respectively, reporting to also sell them. The percentages are much lower for groundnuts (36%) and pigeon peas (26%) and lowest for maize (14%). The uncertain, thin and risky markets, combined with poor road access and the low density of economic activity in rural areas, perpetuates a cycle in which farmers focus on the production of maize solely for their household needs. This means that farmers remain cash-poor, which constraints their ability to purchase inputs or other productivity-enhancing technologies, which is exacerbated by limited access to finance. Hopefully, the adoption of irrigated agriculture will motivate farmers to grow multiple crops of maize and vegetables and input-output markets are developed in future[27]. The successful demonstration of solar-powered irrigation schemes might also motivate better-off and rich farmers to bring more area under irrigated agriculture.

Malawi falls far behind other countries in its use of mechanization and animal traction, partially reflecting land constraints and abundant labor. Less than 1 percent of households in Malawi own some type of equipment. The second lowest comparator country is Nigeria with 9.4%, followed by Uganda with 13.4%, while this is more than 70% of households in Ethiopia and Niger. Likewise, limited use of animal traction represents another weakness in Malawi. Only 2.4 percent of households use animal traction, the lowest proportion by far amongst comparator countries – the second lowest is 19.9 percent in Nigeria[28]. While use of heavy machinery is not recommended for small-holders, it is worth to explore small power tiller driven by a person to ease farmer's workload and use of drones for the application of pesticides. Combining of inputs (inorganic fertilizer and improved seeds) with extension advice is necessary to achieve substantial increases in yield yet extension services are limited in Malawi. The key to success of ADAPT PLAN project was that it mobilized extension workers and experts available at the district level coupled with supply of inputs which brought dividends to the communities.

The project promoted high commercial value activities such as beekeeping and raising of livestock. It provided 455 beehives, which are now grown to 585, which besides giving a monetary benefit of MWK 49.47 million on account of sale of honey, also provided unaccounted voluntary pollination services. There is no concept of harvesting other bee products such as beeswax, pollen and royal jelly. Likewise, the project provided 1,284 goats to community members, which are now grown to 2,754 besides giving monetary gain on sales. The business of piggery is also reported as highly profitable. The farmers are earning a profit on the sale of pigs as well as the growing size of the piggery- project provided 697 which are now grown to 1,938. Raising of plant nurseries and sale of saplings has emerged as a new business in the project area. The additional income which is earned by communities is being used on the construction of disaster-resilient household structures, on medical treatment of ill family members and children's education.

Since water is life, and the project area was water-scarce, the project facilitated the installation of 36 water-pumps on newly constructed boreholes, which benefited 10,249 households. This benefited to 6,070 female-headed and 4,178 male-headed households. Fetching water for household consumption is the responsibility of women and children, this intervention has reduced the drudgery by women and children and spared their time for other household priorities and education.

In Nkhata Bay, the project area is extremely dry and the livelihood of local communities is based on fisheries. At the time of TE, the fisheries season was off and there was no activity of fish catching, drying or sale. To cover the dry period, the project had introduced non-agricultural activities, such as promoting tailoring, making of bakery products and poultry. All the three businesses are flourishing very well. The poultry business of a group has grown from 200 chicks provided by the project to 1,000 chicken now and each member is expecting a divided of MWK 150,000 at the end of the year. Though these activities are not directly related to the climate change as commented in the MTR report, these are important to increase the livelihoods and disaster resilience capacity of the vulnerable communities. The poor and vulnerable are the most affected during disasters.

[27] https://elibrary.worldbank.org/doi/abs/10.1596/31131

[28] https://elibrary.worldbank.org/doi/abs/10.1596/31131

Since the project surpassed the stipulated targets, the interventions were cost-effective. Therefore, both effectiveness and efficiency were rated as highly satisfactory.

At the macro-level, the project facilitated streamlining CCA in national and district plans and produced 10 knowledge products and trained 150 duty bearers. These initiatives are highly useful for CCA advocacy and mainstreaming climate change adaptation in future programmes. At the household level, the project has significantly contributed in the increase in income at the household level and asset appreciation (Section 3.3.7), which has led to women economic empowerment and reduction in GBV. Thus the project was awarded a rating of 'high impact'.

Regarding sustainability, from the institutional perspective, the activities are sustainable as the community social infrastructures are in place and the communities are following the constitutions of the committees to manage the schemes. The project was instrumental in planting 957,074 plant saplings having a survival rate during the 4-year period close to 70%. Thus all the activities are enhancing the biodiversity and overall environment, there is no risk to environmental sustainability. The community schemes are beneficial to all the members, and set rules of profit-sharing are in place, the communities work together in the form of groups with an informally set division of labour. Even there were instances that the members worked voluntarily for over a year, e.g., raising of livestock, poultry, etc., and waited for an opportune time to have dividends. Thus there is also no social risk to sustainability.

The communities have agreed to charge membership fee to recover the maintenance expenditures and are also selling solar electricity to members for charging mobile phones, shaving machines, etc. A portion of income generated through all the income-generating schemes is reserved to cover the operations and maintenance expenditures. There is a clear evidence that the income-generating schemes are growing in volume, e.g., beehives increased from 455 to 585, goats from 1,284 to 2,754, pigs from 697 to 1,938, chicks from 200 to 1,000, and the communities have plans to further expand the area under irrigated agriculture. Growing and sale of tree plant saplings has emerged a new business in the area. Thus there is also no risk to financial sustainability, and overall the project interventions are 'sustainable'.

Ratings

The project M&E system was well defined in the ProDoc (except explanation of AMAT indicators and defining of targets at the output level) and it was well implemented, therefore, it was rated as 'highly satisfactory'. The implementation of the M&E plan was rated satisfactory. It was important to document the economic impact of various activities which was not done, as it was not mentioned in the ProDoc but it was highly essential to do so. The overall rating for Implementing Agency (IA) and Executing Agency (EA) execution were rated as 'satisfactory' and not 'highly satisfactory' as there were delays in the implementation of activities-,e.g., the entire first year was spent in setting up the PMU and opening of bank accounts. The overall quality of the outcomes produced by the project was rated as 'highly satisfactory' because the project surpassed the targets. The ratings for relevance, effectiveness, efficiency, impact and sustainability have been discussed in the aforementioned paragraphs and summarized in Table 9.

Table 9. Rating scales assigned to various elements of evaluation

Criteria	Rating	Comments
Monitoring and Evaluation: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of M&E	HS	Project Board Meetings were held regularly, monitoring visits conducted and adaptive actions taken, a baseline study was conducted, MTR was held and TE conducted in time
M&E design at project start-up	HS	Well-defined M&E Plan is available in the ProDoc, indicators and targets were defined in the ProDoc

Criteria	Rating	Comments
M&E Plan Implementation	S	The M&E Plan was implemented and timely actions were taken. There was a need to document the impacts, which was not done.
IA & EA Execution: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall Quality of Project Implementation/Execution	S	The project implementation was as per schedule, and timely actions were taken to expedite the implementation
Implementing Agency Execution	S	IA provided additional funds to complement various schemes, and interacted proactively with the GoM which helped to have adaptation included in GoM plans and policies. However, some delays in the release of funds occurred.
Executing Agency Execution	S	Overall execution was satisfactory but delays in the establishment of PMU and release of funds to districts occurred.
Outcomes: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of Project Outcomes	HS	The project surpassed the stipulated targets set in the ProDoc
Relevance: relevant (R) or not relevant (NR)	R	The project was designed to address the urgent priorities of the communities, keeping in view high poverty, vulnerability and frequent occurrence of floods and drought. Thus the project is highly relevant to the needs of communities and GoM.
Effectiveness	HS	The project surpassed the stipulated targets set in the ProDoc. The achieved results were highly rewarding to the communities.
Efficiency	HS	The staff cost was considerably reduced by utilizing the sectoral experts and extension staff of the District Councils. Thus the project was implemented in a highly efficient and cost-effective manner, and adaptive actions were taken when necessary.
Sustainability: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU), Unlikely (U)		
Overall likelihood of risks to sustainability	L	The community schemes are self-sustainable financially, and the plans developed by the GoM identify priority projects to address the issues of climate resilience and vulnerability in future. The plans are having indicators for monitoring adaptation.
Financial resources	L	The community schemes implemented by the project are self-sustainable as the communities after meeting the operational costs are also receiving dividends. GoM has identified several priority projects for the future, for which financial assistance from donors is likely to be available..
Socio-economic	L	As the schemes are providing monetary benefits to communities, there is no social conflict among them.
Institutional framework and governance	L	The community structures are well in place and properly functioning. There is a set mechanism by the GoM to support District Governments through its initiative of decentralization.
Environmental	L	All the project interventions are environment-friendly, rather enhancing environment and agricultural biodiversity.

Criteria	Rating	Comments
Impact: Significant (S), Minimal (ML), Negligible (N)		
Environmental status improvement	S	The project interventions have resulted in the improvement of environment in the area. The irrigation schemes, beekeeping and tree plantation will also improve biodiversity. The communities are cognizant of using animal dung as farm-yard manure, thus improving soil health.
Environmental stress reduction	S	The tree plantation and provision of fuel-efficient cook-stoves will help in the restoration of forests and rangeland.
Progress towards stress/status change	S	The project has introduced several interventions which enhance the environment, and provide an improved livelihood to local communities. It has raised awareness among the communities and sensitized the policy makers to accord high priority to climate-resilience and adaptation.
Overall Project Results	HS	The project has surpassed the targets set in the ProDoc. It has worked both at the macro- and micro-level. Several high-value interventions were successfully implemented on the ground which are self-multiplying and paying dividends to the participating communities.

Challenges

The major challenges that the project faced during implementation were:

- The log frame in the ProDoc did not explicitly establish any target at the output level and AMAT indicators were not defined in the ProDoc, which created confusion about following the targets.
- Late disbursement of financial resources by UNDP during the first quarter despite having AWP approved in December each year, significantly delayed procurement of inputs.
- Inadequate extension services in some areas of the districts due to the high staff turnover rate in the key sectors being implementing by the project negatively impacted the implementation particularly at the start of the project.
- Fall armyworm remained a major pest on maize in both rain-fed and irrigated areas and inflicted heavy damages. However, the MAIWD intervened with insecticides to manage the situation. The use of insecticides for long-term may create issues of pest resurgence. It has been reported in the literature that the fall army has developed resistance against some 20 pesticides of different modes of action and a biopesticide *Bacillus thuringenesis*[29], meaning that increasing sprays will further aggravate the problem.
- Inadequate formal markets for the sale of agricultural products produced from the project such as fish, vegetables, crops, honey, and livestock resulted in low profitability.
- High illiteracy levels among community members at the beginning of the project led to delayed execution of some activities because of a lack of understanding of strategies.
- Persistent drought, dry spells, and floods in the project implementation period affected the communities and the project in general.

Lessons Learned and Recommendations

A. Project Formulation

Lesson 1. Comprehensive Results-Based Management: The project formulation process was highly participatory, and all the relevant stakeholders were adequately consulted. The ProDoc is of high quality, the

[29] https://academic.oup.com/jee/article-abstract/112/2/792/5237597?redirectedFrom=fulltext

only limitation is that the document does not contain clear targets for outputs, which makes the assessment at various project stages difficult. Further, the links of outcomes and indicators to AMAT outcomes and indicators are mentioned in the log frame but actual AMAT outcomes and indicators are not explained in the ProDoc, which makes the reader difficult to understand.

Recommendation 1: In future projects, clear targets at the output level should also be mentioned for various stages of the project implementation, and outcomes and indicators to which the projects are feeding at the GEF/AMAT level should also be narrated in the ProDoc for effective and accountable monitoring.

B. Project Implementation

Lesson 2. Flexibility in Project Design and Focus on Micro- Macro-Linkages. The project design was flexible in terms of selecting interventions as per the needs of the local communities. Further, it focused on advocacy, policy, planning as well as setting up pilots at the community level. This approach was highly successful in demonstrating and up-scaling CCA. However, the project design did not allow to use funds for rehabilitation of damaged community schemes after the flood disaster, and the project had to mobilize resources from another recovery project for rehabilitating damaged irrigation schemes in Zomba.

Recommendation 2: As in this project, in future programming a major component of the project should be targeted to increase household income. Further, the project design should be flexible enough to accommodate activities that are highly essential immediately after the disasters to help the communities. The focus on policy research and advocacy should also be there to scale up the proven interventions.

Lesson 3. Support to Decentralization. The adoption of NIM modality and involving the GoM and District Council staff in project implementation builds up strong country ownership, enhance the professional skills of the district staff and is a very cost-effective arrangement. This also supports the decentralization drive of the GoM. However, the capacity of District Councils in coordination and monitoring and evaluation is limited which negatively impacted the project initially. The central government ministries also lacked financial resources for the monitoring of activities.

Recommendation: The NIM modality and engagement of GoM staff should be followed in future projects with the following changes:

3a. In each District, a District Coordinator on project payroll must be engaged from the very beginning for coordination, oversight on the use of finances by the sectoral staff and timely production of results.
3b. In each district, an M&E Officer should also be hired on project payroll to monitor the project activities and take corrective actions and timely production of well- informed reports. The M&E Officers should be particularly tasked to document the impacts.
3c. In future projects, budgetary provision should be kept for the central GoM departments to further enhance ownership at the ministerial level as well as to strengthen oversight

Lesson 4. Mobilization of Resources for Scaling up. During the project duration, no case of replication in water, irrigation or agriculture sector was observed. Replication was visible in the livestock, beekeeping, and nursery raising sectors. Neither UNDP nor other donors can scale up the interventions alone and solve all the issues at the community level. The project has adopted a number of novel practices that could help enhance and diversify the livelihoods, and these practices need to be up-scaled. TE also noted that there are several projects of GoM and INGOs operating in programme districts, however, the project had limited interaction with them and vice versa. This may create the issue of competition/duplication of activities and different approaches/incentives being followed. Mutual learning through coordination could be beneficial to all parties.

Recommendations

4a. In future projects, various modalities of scaling up should be included in the design. For example, in future projects, UNDP after demonstration of best practices should put a condition of cash contribution of the GoM or communities for scaling up proven practices.

4b. The GoM and donors should consider pooling funds in the National Climate Change Fund for supporting groups and cooperatives on the pattern of GEF-SGP for scaling up proven interventions.

4c. In future projects, the project management should also look at other avenues to mobilize additional resources in the project area and link groups and cooperatives to other projects for accessing more funds for upscaling (parallel financing). This should particularly be promoted by the District Governments.

4d. In future projects, the projects should also consider supporting some well-off beneficiaries on parallel financing basis which will contribute to enhancing employability and national economy.

C. Project Implementation

Lesson 5. Training of Finance and Admin Assistants and Business Process Re-Engineering. The advance fund disbursement mechanism adopted by the project (funds are given to EAD and then transferred to District Councils after passing through various assignment accounts) is a lengthy process and delays occurred in the implementation of activities. Sometimes the funds were available to the staff at the end of the quarter and then procurement was made in a hasty manner. UNDP has its own procedures, which require settlement of previous advances before issuing a new advance. In general, the advance requests miss proper documentation and internal audit control raise so many observations which delays the process. Only training of the accounting staff in the GoM offices can help to reduce the time delays.

Recommendations:

5a. To avoid delays in the release of advances, UNDP should provide sufficient training to the accounting staff in District Councils to follow UNDP procedures, followed by refresher sessions to prepare proper advance requests.

5b. To avoid delays in the release of advance requests, the GoM should consider curtailing its channels (assignment accounts) while transferring funds to the District Councils.

D. Technical

***Lesson 6. Engagement of Communities in Participatory Monitoring and Reporting*.** The communities in the programme districts were consulted at the time of project formulation and all the implementation in the field was done by them. The communities were also given a free choice to choose any livelihood activity. This enhanced community ownership and implementation. The communities allocated their land and also worked as labourers to implement irrigation schemes, planting of trees, ensuring controlled grazing, proper allocation of land and water resources among themselves and preparing of animal-sheds and animal husbandry. The project has been highly instrumental in enhancing cohesiveness among the communities, reducing GBV and women economic empowerment, however, it lacked participatory monitoring and reporting.

Recommendation 6: The communities should be trained in participatory monitoring and reporting, which will help to increase accountability of local extension staff. Further, the projects should identify and engage go-getters who can help in replication and upscaling.

Lesson 7. Watershed Management and Promotion of other Water-Lifting Schemes. It was reported that in Ntcheu, the water available from boreholes was not sufficient to meet the community needs and new boreholes were dug at deeper levels to cover the community needs. Likewise, in Nkhata Bay district, the SASASA gravity irrigation scheme is not based on a perennial water source and during dry months the water is not available. Thus the scheme has partially solved the problem. Further, the area is prone to flash flood during the rainy season. This warrants comprehensive and participatory feasibility studies to ensure meeting the community's needs and sustainability.

Recommendations:

7a. Irrigation requires heavy initial capital investment and programmes should consider allocating adequate funds at the planning and feasibility stage. For drying up irrigation schemes, catchment conservations through plantation and construction of check-dams should be one of the key interventions.

7b. The TA Mbwana, district Nkhata Bay is a coastal area of Lake Malawi, so the groundwater level is not so deep and strong winds blow in the area. Animal driven dug-wells or wind-mill water lifting schemes should be encouraged in this and other similar areas which will be more cost-effective than the solar power irrigation schemes.

***Lesson 8. Accurate Weather Forecasting and Crop/Livestock Insurance*.** Weather forecasts help communities to prepare for disaster management. Early release of agricultural forecasts based on weather forecasts are highly useful in minimizing the crop losses due to biotic (pests) and abiotic (weather) factors. A study conducted by the project indicated that more than 80% of the population is having cell phones, which could be used to fetch timely weather and agricultural forecasts. During TE, no case of crop or livestock insurance against natural hazards was observed.

Recommendation 8:

8a. The DCCM and MAIWD should work together to improve the weather and agricultural forecasting system and at the district level, the accurate forecasts should be released through radio and SMS services.

8b. Further, the concerned GoM department(s) should work with the private sector companies providing crop and livestock insurance as is happening in Uganda and Kenya. This will certainly help to minimize the miseries of communities.

Lesson 9. Training of Local Artisans in Maintaining Solar Power Systems. Although uptake of solar technology is improving, a lack of technicians to repair the gadgets could reduce their use. The availability of local artisans would instil some level of confidence in households using and repairing solar gadgets. It will be particularly useful in keeping the solar-based irrigation schemes fully functional.

Recommendation 9: In future projects, UNDP should consider investing in the training o f local artisans for the repair of the solar gadgets. It could become another trade of livelihood diversification.

***Lesson 10. Integrated Pest Management, use of Small Power Tillers/Draught Animals and Diversification of Bee Flora*.** Shifting of farmers towards irrigated agriculture is being seen as a positive and enterprising sign for the poor communities but the changing practices and weather will also bring in new problems, such as insect pests. In the project area, the people informed that the fall armyworm and grasshoppers have become a problem for which the farmers are using pesticides. Fall armyworm is one of the most important pests in the American continent and has recently become an invasive species in Africa[30]. The non-judicious use of pesticides will further aggravate the problem due to the development of pesticide resistance and weather triggered pest outbreaks in the absence of natural enemies (killed by the use of pesticides). The use of pesticides will further decline per acre density of bees and other pollinators, leading to low yields of cross-pollinated crops, vegetables and trees. It was also observed that in all the districts, the cultivation was being done manually which is a highly cumbersome and time-wasting practice and less profitable.

Recommendations:

10a. The institutions and communities need to be sensitized and trained in adopting integrated pest management (IPM) and using pesticides only when the losses are likely to exceed the economic threshold levels. In future projects, farmers' training schools approach should be adopted.

10b. The MAIWD should immediately advise the scientists to study the resistance level in fall armyworm (Malawian strain) and test the efficacy of pesticides being used against it. The use of ineffective pesticides should be stopped and IPM promoted.

10c. Emphasis should be given to growing of flowering plants to provide flora to pollinators throughout the year. Multi-purpose tree species, like *Moringa olifera* and *Azadirachta indica.* Besides serving as a nectar source for pollinators, various high-value products could also be made from these species to diversify livelihoods.

10d. Ploughing by using draught animals or small power tillers should be promoted. This practice will reduce the workload of farmers and free their time for other productive activities.

[30] *https://www.researchgate.net/publication/328966075_Metabolic_Resistance_in_the_Fall_Armyworm_An_Overview*

Lesson 11. Value Addition and Input-Output Market Development at Local Level. The communities are not really trained in processing and doing value addition in various products. This results in loss of profit to middlemen and traders as well as the loss of productivity due to post-harvest losses in the absence of value addition and distant markets.

Recommendation 11: In future similar projects, the focus should be on value addition in various farm products at the farm gate and markets for input supply and sale of farm products be developed at the TA level. Particularly, the group marketing should be encouraged which could provide a leverage to the small-holders to fetch a better price of their products.

Lesson 12. IEC Material and Knowledge Management. During the TE, the mission did not come across any brochure or leaflets, etc., which are quite useful in enhancing information sharing. Likewise, the project did not maintain any dedicated website where the knowledge products were available. However, to enhance visibility the project has installed signboards on the main road-side in Ntcheu district.

Recommendation 12: In the future, it should be made mandatory for the projects to develop brochures, leaflets, short video-clips for widespread use in the programme districts. Likewise, every project should have a dedicated website on which the knowledge products developed by the project and related GoM and UNDP publications are available.

Lesson 13. Successor Project. It has been learned that the UNDP is in the process of developing a concept note for a successor project based on the best practices that emerged from ADAPT PLAN and two other complementary projects. The successor project is immediately needed to serve as a lynchpin in climate change adaptation.

Recommendation 13: A successor project should be developed to scale up the proven practices with contributions from communities, GoM and other donors with a clear focus on enhancing productivity, value addition and agro-livestock market development; and to document the economic impacts of the interventions and improvement in Resilience Index of participating communities.

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Annex 1 Terms of Reference *(annexed as a separate file)*

Annex 2 Itinerary

Date	Day	Time	Activity
14 Oct 19	**Monday**		**International Consultant [IC] submits the Inception Report to UNDP**
14-25 Oct 19			UNDP/GEF RTA review the Inception Report and provide feedback to the IC
30 Oct 19	**Wednesday**		**Submit finalized Inception Report to UNDP**
4 Nov 19	**Tuesday**		**International Consultant arrives in Lilongwe by flight KQ 730 at 0850 hrs**
		1300	Opening meeting at UNDP in the afternoon, followed by meeting with the Reference Group
5 Nov 19	Tuesday	0900	Meeting with GEF Focal Point, Project Director
		1030	Meeting with Senior Development Planning Officer, National Planning Commission
		1400	Depart for district Ntcheu, and meet district officials in the evening
6 Nov 19	Wednesday	0800	Field visit and community meetings in district Ntcheu
7 Nov 19	Thursday	0900	Depart for Zomba
8 Nov 19	Friday	0900	Meeting with district officials in Zomba
		Afternoon	Visit to field sites, interviews with community notables and FGDs
9 Nov 19	Saturday	0900	Visit to field sites, interviews with community notables and FGDs
10 Nov 19	Sunday		Drafting of the report
11 Nov 19	Monday	0900	Meeting with Nkhata Bay district officials
		1100	Visit to field sites, interviews with community notables and FGDs
12 Nov 19	Tuesday	O900	Visit to field sites, interviews with community notables and FGDs
13 Nov 19	Wednesday	0930	Meeting with the Officials of District Nkhata Bay and M&E Officer
			Email presentation on preliminary findings to UNDP for review
14 Nov 19	Thursday	Morning	Leave for Lilongwe
		Afternoon	Finalize presentation
15 Nov 19	Friday	1000	Presentation of preliminary findings to UNDP & MNREM
		1300	Meeting with the Ministry of Local Government
16 Nov. 19	Saturday	1000	Meeting with the Land Department
		1400	Meeting with the Irrigation Department
17 Nov. 19	Sunday	1400	Meeting with Irrigation Department
18 Nov 19	**Monday**		**International Consultant leaves for home by KQ Flight 739 at 0240 hrs**
19- 26 Nov 19			Writing of draft report
4 Dec 19	**Wednesday**		**Submission of Draft Report**
5-10 Dec 19			Review of the report by UNDP, Govt., and GEF RTA
11-12 Dec 19			Adjustments for final report
12 Dec 19			**Submission of Final Report**

Annex 3 List of Persons Interviewed

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1	Ms. Shamiso Najira	Deputy Director, EAD & GEF Focal Person	+265 999 895000 shamiso_b@yahoo.com
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4	Mr Moses Zuze	Economist, Ministry of Local Government and Rural Development	
5	Mr. Mihla Phiri	Senior Land Resource Conservation Officer, Department of Land Resources Conservation	
6	Mr. Gomezgani Ngwira	Department of Irrigation, MAIWD	
7	Mr Knowledge Mtambo	DPD Nkhata Bay	Knowledgemtambo1985@gmail.com +265 997 360 397
8	Mr. Walter Chikuni	DPD Zomba	chikuniw@yahoo.com 0992 626 469
9	Ms. Sylvia Ambali	EDO Zomba District	sylambali@gmail.com 0992 445 000
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12	Mr. Patrick B. Makupete	Forestry Assistant, Zomba	patrickmakupete@gmail.com +265 995 693 055
13	Mr. Great Munthali	Assistant District Fisheries Officer, Zomba	Greatmunthali82@gmail.com +265 995 154 869
14	Mr. Gomezgani Ngwira	DOI (Economist)	gomezgan@yahoo.co.uk +265 999 237 986
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20	Mr. Tawachi Kaseghe	District Coordinator, ADAPT PLAN, Nkhata Bay	Tawachi.kaseghe@undp.org
21	Mr. James T. Mzere	District Animal Health and Livestock Development Officer, Nkhata Bay	jahmesmzere@yahoo.com
22	Mr. Staford Vinkhumbo	District Water Officer	
23	Mr. William T. Kalua	Assistant District Forest Officeer, Nkhata Bay	kaluawilliamtycoon@gmail.com
24	Mr. James Botha	Assistant Irrigation Officer, Nkhata Bay	
25	Mrs. Joy Ng'ambi	Assistant District Fisheries Officer, Nkhata Bay	
26	Mr. Donnex Mtambo	EDO, Ntcheu	donemtambo@yahoo.com +265 993 295 382
27	Mr. Abubakar Nkhoma	DPD Ntcheu	abunkhoma@gmail.com +265 999 313 784
28	Mrs Caroline Dzimbiri	M & E, Ntcheu	nafecarol@ymail.com +265 882 064 846
29	Mr. Limbani Mzembe	Irrigation Officer, Ntcheu	+265 993 866 792
30	Mr. Benard Nkwanda	Senior Assistant Livestock Development and Health Officer, Ntcheu	+265 996 917 638
31	Mr. Geoffrey Chamdirmba	District Coordinator, ADAPT PLAN	geoffrey.chamdimba@undp.org

S. No.	Name	Title	Phone No./Email
			+265 999 475 427
32	Mr. Andrew Spezowka	Portfolio Manager, UNDP	Andrew.spezowka@gmail.com +265 997 725 029
33	Ms. Heather Maseko	Programme Analyst	heather.maseko@undp.org
34	Mr. Nyirenda Sothini	Programme Officer	sothini.nyirenda@undp.org
35	Mr. Gomezgani Ngwira	Irrigation Officer	+265 999 237986

Community Members
+ 100 in the programme districts

Annex 4 List of Documents Reviewed

Malawi Growth and Development Strategies III, 2017-2022
Malawi Country Programme, 2012-2016
ECRP, Malawi Lessons Learned Report, 2017
Malawi's Strategy on Climate Change Learning, 2013
Malawi National Climate Change White Paper, 2014
National Climate Change Management Policy, 2016
Malawi Post Disaster Assessment Report,2019
Malawi Climate Action Report, 2016
UNDP Guide Mainstreaming Climate Change
Project Information Form (PIF)
Signed LPAC Meeting Minutes, 2014
Project Document ADAPT PLAN, 2014
Project Initiation Plan
Project Inception Report, May 2015
GEF Secretariat Review of ADAPT Plan
GEF Council Notification, 2015
Request for CEO Endorsement, 2014
Various Annual Work Plans
ADAPT PLAN Project Coordination Meeting Report, 2016
Field Visit Report, October 2016
LDCF Adaptation Monitoring and Assessment Tool
Field Visit Report, September 2019
Joint Monitoring Report, December 2017
Monitoring and Evaluation Framework and Reporting Format for Climate Change Adaptation Initiatives in Malawi, 2017
Tracking Tool, 2014 and 2019
PIRs, 2016, 2017, 2018, 2019
Various Quarterly Reports
Mid-term Review Report, December 2017
Audit Report 2017, 2018
Training Need Assessment Report, 2016
Malawi COBRA Assessment Report, 2017
Minutes of Task Force Meeting to establish NCCF, 2017
Workshop Report on the Process to Establish NCCF
Sustainability Plan, 2019
Various Success Stories
Baseline Study and Development of M&E Framework, 2017
Baseline Stories of Climate Change, 2017
Community-Based Adaptation and Community Managed Disaster Risk Reduction Plans, 2017
Value Chain Analysis Report, 2018
Guidelines for Integrating Climate Change Adaptation in Development Planning,2017
Malawi Climate Change Public Expenditure and Institutional Review, 2018
Malawi National Resilience Strategy, 2018-2030
National CCA Training Manual, 2019
Project Stories of Change for the ADAPT PLAN Project, 2017
Annual Budget Analysis for Inclusion of Climate Change, 2017
Gender Mainstreaming Workshop Report, 2016
Training Report on integration of Climate Change Adaptation into Development Planning, 2017
Report on Training for DESC Members on Revised CCA Inclusive Environmental and Social Safeguards Screening Tools, 2017
District Development Plans, Nkhatabay, Ntcheu and Zomba
Various Village Action Plans
District Specific Weather Forecasts

Annex 5. Evaluation Question Matrix

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
Relevance: To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results?			
Global and national priorities			
To what extent is the project aligned with the objectives of the GEF 5, BD and CC Focal Area strategies?	Level of congruence of the project Strategic Results Framework with the relevant GEF 5 Focal Area strategies	GEF 5 Focal Area Strategies, GEF Global Environmental Benefits, PIF, Project Document, CEO Endorsement Request, PIRs, TE feedback	Document analysis, interviews with GEF-OFP & NPD, personal observation
To what extent is the project relevant to UNDP's strategic country objectives?	Level of congruence between project log frame and UNDP strategic objectives	UNDP Strategic Plan 2018-21, UNDP Country Strategy Malawi, TE feedback	Document analysis, interviews
To what extent does the project address national and local priorities?	Level of congruence between national and provincial priorities and project objectives	International and national commitments and strategies relevant to the project and policies indicated in ProDoc, national and provincial policy and strategic documents, Project Document, technical reports, the literature on adaptation in Malawi, first-hand information from stakeholders, TE feedback	Document analysis, interviews, Focus Group Discussions, personal observation
Synergies			
To what extent have synergies with other projects / programmes been realized in project design and implementation?	Nature and kind of partnerships developed by the project	Project document, Project documents of other projects, Documents on synergies between projects, TE feedback	Document analysis, interviews, personal observation
Results framework			
Does the strategic results framework fulfill SMART criteria, and does it sufficiently capture the added value of the project?	Level of compliance of strategic results framework with SMART criteria	Strategic results framework, UNDP guidance on planning and monitoring for development results, GEF Tracking Tools	Document analysis, interviews
Capacities for implementation			
Was the project design realistic in terms of the capacities and resources of the executing agencies?	Level of the effectiveness of project implementation	PIRs, audit reports, TE feedback	Document analysis, interviews
Were partners properly identified and roles and responsibilities negotiated before the project start?	Level of efficiency of project implementation	MoUs, Project document, PIRs, Project Board minutes of the meetings, TE feedback	Document analysis, interviews
Were partner resources and capacities, enabling legislative framework, and appropriate project management arrangements in place at project start?	Level of effectiveness and efficiency of project implementation	Minutes of Project Board meetings, LPAC meeting minutes, TE feedback	Document analysis, interviews
Mainstreaming of broader development objectives			
Has the project addressed gender mainstreaming in planning and implementing project activities?	Level of female engagement in project activities	Project gender strategy, PIRs, project technical reports, capacity building reports, project media coverage	Document analysis, interviews, gender-based Focus Group Discussions with

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
			target group representatives
Has the project ensured the inclusivity of disadvantaged groups in planning and implementing project activities?	Level of marginalized group engagement in project activities	Environmental and Social Screening, project thematic reports, capacity building records, TE feedback	Document review, interviews, Focus Group Discussions, personal observations
	Existence of positive/negative impacts of the project on the livelihoods of members of disadvantaged groups	Environmental and Social Screening, thematic reports, capacity building records, TE feedback	Document review, interviews, Focus Group Discussions, personal observations
Progress Towards Results [Effectiveness]: To what extent have the expected outcomes and objectives of the project been achieved thus far?			
To what extent has the project contributed to the awareness and ownership of adaptation and climate risk reduction processes at local level [progress towards Outcome 1]?	Level of achievement of targets set for Outcome 1 in the project document	Strategic results framework, PIRs, TE feedback, sources of verification in SRF	Document analysis, progress towards results analysis, personal observations
To what extent has the project contributed towards diversification and strengthened livelihoods for vulnerable people in target areas [progress towards Outcome 2]?	Level of achievement of targets set for Outcome 2 in the project document	Strategic results framework, PIRs, TE feedback, sources of verification in SRF	Document analysis, progress towards results analysis, personal observations, Focus Group Discussions with target groups
To what extent has the project contributed towards mainstreaming adaptation in broader development frameworks at the country level and in targeted vulnerable areas [progress towards Outcome 3]?	Level of achievement of targets set for Outcome 3 in the project document	Strategic results framework, PIRs, TE feedback, sources of verification in SRF	Document analysis, progress towards results analysis, personal observations, Focus Group Discussions with target groups
What barriers remaining to the achievement of the targeted development result?	Adequacy of delivered outputs to overcome barriers	PIRs, Project Board minutes, TE feedback	Document analysis, interviews, personal observations
Project Implementation and Adaptive Management [Efficiency]: Has the project been implemented efficiently, cost-effectively, and been able to adapt to any changing conditions thus far? To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation?			
Management arrangements			
Were management arrangements in place that are efficient, effective, transparent and flexible?	The clarity in responsibilities for PMU, and other implementers	Project document, PIRs, Project Board minutes of meetings, TE feedback, ToR of staff	Document analysis, interviews, personal observation
	Transparency, timeliness, and documentation of decisions	Meeting minutes	Document analysis, interviews, personal observation
Management arrangements Executing Agency	Effectiveness of management response to Project Board guidance	Project Board minutes of meetings, AWPs, PIRs, TE feedback	Document analysis, interviews

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
	adequacy and efficacy of management inputs in place	Meeting minutes, TE feedback	Document analysis, interviews, personal observations
Has UNDP provided quality support to the project, provided approvals in time and restructuring when necessary?	Clarity of results focus of UNDP interventions	PIRs, Project Board minutes of meetings, PIRs, audit reports, TE feedback	Document analysis, interviews, personal observations
	Level of UNDP staff engagement in project supervision	Supervisory reports, back-to-office reports, internal appraisals, TE feedback	Document analysis, interviews, personal observations
Work planning			
Have there been substantial delays in project implementation and have their reasons been documented and addressed?	Level of congruence of milestones in AWP with indicators of the Strategic Results Framework	Project Document, Strategic Work Plan, AWPs, QWPs, PIRs, financial delivery reports, TE feedback	Document analysis, interviews, personal observations
Is work planning focused on results-based management?	Level of achievement of the strategic work plan and AWP targets	Strategic Work Plan, AWPs, QWPs, PIRs, financial delivery reports, TE feedback	Document analysis, interviews, personal observations
	Adequacy of documentation and justification of work plan amendments		
Has the strategic results framework been used as a management tool?	Reference of AWP targets to Strategic Results Framework	Strategic Results Framework, AWPs, QWPs,	Document analysis, interviews
Finance and co-finance			
Does the financial flow of the project allow for effective and efficient delivery of project targets?	Planned vs. actual financial delivery	PIRs, financial delivery reports, combined delivery reports, audit reports, Project Board meeting minutes, approved budget revisions, TE co-financing report, TE feedback	Document analysis, interviews, personal observations
	Level of constraints in project financial flows	Record of meetings, interviews	Document analysis, interviews, personal observations
Do financial control mechanisms allow the PMU to conduct effective financial management?	Availability of up-to-date and detailed [activity-wise] financial status	Annual budgets, midterm financial report, ATLAS reports, TE feedback	Document analysis, interviews, personal observations
	Annual audits conducted	Audit reports	Document analysis, interviews
Were budget revisions justified and effective?	Level of documentation and justification of changes	Project document, PIRs, Strategic budget plan, Annual budget plans, midterm financial report	Document analysis, interviews
Has the project been implemented in a cost-effective manner?	Level of cost-effectiveness of delivery of project outputs	Progress towards results matrix, financial delivery reports, TE feedback	Document analysis, interviews, personal observations, field visits
Is the project efficient with respect to incremental cost criteria?	The proportion of project investments not part of business-as-usual investments	National strategies and plans, Project document, PIRs, TE feedback	Document analysis, interviews, personal observations
Has co-finance been delivered in accordance with the Project Document?	Achieved figures in comparison to targets and justifications for deviation	Co-finance commitment letters, TE financial report, PIRs, financial delivery reports, audit reports, TE feedback	Document analysis, interviews, personal observations
M & E System			

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
Is the project M & E plan sufficiently budgeted and implemented according to plan?	Effectiveness of resource allocation and level of implementation of the M&E plan	M&E Plan, field monitoring reports, PIRs, GEF Tracking Tools at CEO Endorsement & Midterm, AWPs, PIRs, risk log, issue log, financial delivery reports, TE feedback	Document analysis, interviews, personal observations
	Level of engagement of stakeholders in implementing M&E plan	M&E plan, PIRs, project output level deliverables, TE feedback	Document analysis, interviews, personal observations
Does the M&E plan yield relevant information for adaptive management?	Level of the effectiveness of the M&E plan	M&E Plan, PIRs, GEF Tracking Tools at CEO Endorsement & Midterm, risk log, issue log, TE feedback	Document analysis, interviews, personal observations
Has the project taken adaptive management measures?	Level of the utilization of the M&E system for timely adaptive management responses	Project Document, PIRs, GEF Tracking Tools at midterm, risk log & issue log, Project Board meeting minutes, TE feedback	Document analysis, interviews, personal observations
Stakeholder engagement			
Has the project inclusively and proactively engaged stakeholders in i] planning, ii] implementing and iii] monitoring of project activities?	Level of stakeholder participation according to the ladder of participation	Stakeholder engagement plan in the Project Document, Project Communication Strategy, project technical reports, TE feedback, minutes of meeting	Document analysis, interviews, Focus Group Discussions, personal observations
How effectively has the project engaged local organizations as partners in project delivery?	Effectiveness of strategic partnerships with key stakeholders	Service contracts with key partners, minutes of meetings, co-financing reports, TE feedback	Document analysis, interviews, personal observations
Have stakeholder engagement and public awareness contributed to progress towards achieving project results?	Documented changes in awareness and behaviour, replication of project interventions	Project output level deliverables, best practices reports	Document analysis, interviews, personal observations
Were there barriers to stakeholder participation that need to be addressed for the successful delivery and sustainability of project achievements in the future?	Level of stakeholder grievances	Output level project reports, TE feedback	Document analysis, interviews, personal observations
Has the project utilized local capacities in an effective manner?	Efficacy of utilizing local capacities in project implementation	Contracts, financial expenditure reports, deliverables, TE feedback	Document analysis, interviews, personal observations
Have Malawi national and provincial government agencies embraced the ADAPT PLAN approaches practiced by it?	Existence of policy documents	Government documents, websites, TE feedback	Document analysis, interviews, personal observation
Reporting			
Have adaptive management changes and project progress been transparently reported to the Project Board?	Level of awareness of Project Board members on measures of adaptive management	Project Board minutes of meetings, PIRs, TE feedback	Document analysis, interviews, personal observations
Has the PMU fulfilled UNDP-GEF reporting requirements?	Degree of adherence to UNDP-GEF reporting requirements	GEF reporting documents [Inception Report, PIRs], TE feedback	Document analysis, interview, personal observations
Have lessons learned from adaptive management been documented and shared and	Lessons learnt reports	PIRs, project reports	Document analysis, interview, personal observations

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
have these informed the design and management of other projects?			
Communication			
Does the project follow an effective communication strategy?	Level of operationalization and adaptive management applied to communication strategy	Project communication strategy, communication plan, list of communication products and events, TE feedback	Document analysis, interviews, personal observations
Is information and knowledge generated through the project effectively managed?	Level of clarity on the process of generating, sharing, using and managing knowledge in project	Project communication strategy, output level project reports, TE feedback	Document analysis, interviews, personal observations
	Number of knowledge management products generated	List of reports, reports, TE feedback	Document analysis, interviews
	Level of awareness on knowledge management products by target groups	Project communication strategy, communication products, media appearances, output level project deliverables, TE feedback	Document analysis, interviews
Was information effectively exchanged internally between the PMU and the relevant government ministries?	Level of awareness of project partners about project activities	TE feedback	Interviews, personal observation
Sustainability: To what extent are there financial, institutional, socio-economic, and/or environmental risks to sustaining long-term project results?			
Integration of sustainability in project design and implementation			
Has the project design considered the maintenance of impact beyond project duration?	The extent of sustainability of project outputs	Project document, Inception report, PIRs, Project Board minutes of meetings, TE feedback	Document analysis, interviews, personal observations
Does the project manage potential risks to sustainability in an appropriate manner?	Frequency of updates to risk log	Risk log, issue log, TE feedback	Document analysis, interviews
What lessons can be drawn regarding the sustainability of project results, and what changes could be made [if any] to the design of the project to improve the sustainability of project results?	The extent of lessons learned applied in adaptive management to ensure sustainability	Lessons learned reports, PIRs, Project Board minutes of meetings, national and provincial development strategies, TE feedback	Document analysis, interviews
Institutional framework and capacities			
Are changes in legal frameworks, policies, governance structures and processes likely that may pose risks to the sustainability of project results?	Existence of government policies to change the institutional setup and/or legal frameworks	Government documents, policy documents, media, TE feedback	Document analysis, interviews, personal observations
Did the project create mechanisms for accountability, transparency and knowledge transfer that	Existence of mechanisms and their degree of independence from the project	Government documents, PIRs, TE feedback	Document analysis, interviews, personal observations

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
will remain after project closure?			
How is the survival of multi-stakeholder ADAPT PLAN processes and partnerships ensured and are capacities and funding adequate?	Level of the functionality of multi-stakeholder planning processes and implementation partnerships	Documentation of coordination mechanisms between stakeholders, documentation of planning processes and implementation partnerships, TE feedback	Document analysis, interviews
	Level of institutional capacities on resilience and adaptation	TE feedback	Document analysis, interviews
Does the project successfully mainstream its agenda into national and provincial policy and government action?	Level of consideration of adaptation to vulnerabilities in recently approved government documents and plans	Government documents, TE feedback	Document analysis, interviews, personal observation
Financial risks			
To what extent will financial input be required to sustain project achievements beyond project lifetime?	Extent and duration of financial input required after project termination	Technical reports, PIRs, TE feedback	Document review, interviews, personal observations
What is the likelihood that financial resources will not be adequately available after the project?	The likelihood for government funding for investments initiated by the project	Government strategic documents, government budget allocations, TE feedback	Document review, interviews, personal observations
Socio-economic risks			
Does the socio-economic situation create risks that may jeopardize the sustainability of project outcomes?	Number and severity of socio-economic risks identified	Social and economic screening, PIRs, risk log, TE feedback	Document analysis, interviews, personal observations
Is there a risk of insufficient ownership over project investments by certain stakeholders?	The extent of government ownership over ADAPT PLAN concepts, guidelines processes, platforms	Organograms, Government documents, PIRs, TE feedback	Document analysis, interviews, personal observations
What is the level of awareness and support for ADAPT PLAN among stakeholders?	The proportion of stakeholder with clarity on the concept of community-based adaptation to vulnerabilities	Reports, TE feedback	Document analysis, interviews, personal observations
Is the communication of project achievements tailor-made to the socio-economic conditions of the target group?	Level of understanding of project achievements by target groups	Project communication strategy and products, TE feedback	Document analysis, interviews, personal observations
Are there any political risks that threaten the sustainability of project achievements?	Level of risk of political change	Government documents, security analyses, risk log, TE feedback	Document analysis, interviews, personal observations
Environmental risks			
What environmental risks could undermine the sustainability of project outcomes?	Identification of environmental risks	Risk log, government documents, TE feedback	Document analysis, interviews, personal observations

Evaluative Questions	Indicators [/benchmarks]	Sources	Methodology
Replication and up-scaling			
Have project lessons been replicated or up-scaled?	The extent of replication of project learnings	Project & government documents, TE feedback	Document analysis, interviews, personal observations

Annex 6 Questionnaire Used

Evaluation Question	Project Board	GEF OFP	UNDP	PMU	NPD	MNREM	IPs	Beneficiaries
On the relevance of the project design:								
1) How do you rate the project design in capturing the challenges relevant for ADAPT PLAN in Malawi/your region?	x	x	X		x	X	X	X
2) To what extent is the project aligned with the priorities of the UNDP and GEF priorities in Malawi?		x	x		x			
3) To what extent has the project capitalized on synergies with other projects?	x	x	x	x	x			
4) In your view, was the project formulation process participatory and why?	x					x	x	x
5) How easy has it been to use the log frame indicators to monitor the project's implementation and impacts?			x	x				
6) How has the PMU monitored risks and assumptions and what do you suggest changing for future projects?			x	x	x			
7) What challenges/good practices have you experienced in relation to project design and indicators, and how did you use adaptive management to solve them?				x			X	
8) To what extent does the project address your region's/your country's most urgent priorities in terms of sustainable management of forests, water and agriculture?	X	x			x	x	x	x
9) Was the project design realistic given the expertise of the EA and the allocated resources?	x		x	x				
10) In which way do the project design and implementation consider specific priorities and needs of women and disadvantaged groups?				x	x	x	x	x
On Progress towards results:								
1) Going through the logframe, highlight what has been implemented and what key results were delivered				x		x	x	
2) What challenges have you faced related to implementation so far and how have you used adaptive management to address them?	x		x	x	x			
3) What important barriers remained that constrain the achievement of the project objective?	x		x	x	x			
4) What training have you received from the project?						x	x	x
5) How much income has been increased in your household, after following project guidelines?								x
6) What do you do with the increased available income? Spend on food, health, education, etc.								x
7) Do you receive timely weather forecasts and you plan your farming practices or preparations for disaster[s] based on the forecasts?								x
8) How actively did you participate in the preparation and implementation of Village Development Plans?								x
9) How much are the post-harvest losses? Are you using any pest control practices? Is there any reduction in losses due to pests because of the timely use of pest control practices								x
10)Do you practice disaster risk management practices that were learned from the project? Is there any significant								x

Evaluation Question	Project Board	GEF OFP	UNDP	PMU	NPD	MNREM	IPs	Beneficiaries
reduction in losses due to disasters, after you received training in disaster risk management?								
On Management arrangements:								
1) Are the responsibilities clearly shared among stakeholders?	x		x	x	x	x	x	x
2) Are management decisions effective and transparent to all stakeholders?	x	x	x	x	x	x	x	x
3) Has guidance by the Project Board been promptly implemented?	x		x	x	x		x	
4) How has the Project Board supported the PMU on any aspect of project implementation?	x		x	x	x			
5) Have the project implementation arrangements been modified, why was it deemed necessary and what approvals were sought after modifications?	x		x	x	x	x		
6) Has the Executing Agency provided efficient management towards the delivery of project results?	x		x	x	x	x	x	x
7) Does the work of Implementing Partners efficiently contribute to the delivery of results?	x		x	x	x	x	x	x
8) Has UNDP provided quality guidance, adequate staff and resources to fulfill its supervisory functions over the project?	x		x	x	x	x	x	
9) What would you do differently – or needs to be modified for similar projects in future?	x		x	x	x	x	x	x
On Work planning:								
1) Were there any delays in project implementation and if yes, what were their reasons and how were they tackled?	x		x	x	x		x	x
2) How does the process of work planning function? How do you decide on the next activities to be implemented? Do you use the log frame for work planning and if yes how?				x	x	x	x	
3) How well do you think the work plan matches the budget proposed?	x		x	x	x		x	
On Finance and co-finance:								
1) Do you consider the financial flow of the project was efficient? Were there some bottlenecks and if yes, which ones?	x		x	x	x	x	x	
2) What financial control mechanisms did you use in the adaptive management of the project?			x	x		x		
3) What were the justifications for the repeated budget revisions?	x		x	x	x	x	x	
4) Has co-finance been delivered as expected? If not, why?	x		x	x	x	x		
5) Does co-finance contribute to the achievement of project targets in a meaningful way?	x		x	x	x	x		
On Monitoring and Evaluation								
1) How does the project monitor whether awareness and capacities on ADAPT PLAN have increased as a function of inputs?			x	x	x		x	
2) How does the project monitor the implementation of activities, the delivery of outputs and the achievement of outcomes?			x	x	x	x	x	x
3) What type of M&E system does the project maintain?			x	x	x		x	x

Evaluation Question	Project Board	GEF OFP	UNDP	PMU	NPD	MNREM	IPs	Beneficiaries
4) Has the Project verified/established any of the indicator baselines? If yes, how?			x	x			x	
5) Has the project formulated a participatory M&E System?			x	x	x	x	x	x
6) How is the M&E system used to inform adaptive management of the project?			x	x			x	
On Stakeholder engagement:								
1) Please describe how you/stakeholders have participated in the project implementation				x	x	x	x	x
2) How has adaptive management been applied in project implementation related to stakeholder participation?			x	x	x		x	
3) What benefits are you deriving from the project?			x			x	x	x
4) What responsibilities do you have regarding the benefits and the project in general						x	x	x
5) How were local communities/organizations involved in the project?						x	x	x
6) What are the major hurdles for stakeholder participation in project implementation?	x		x	x	x	x		
7) Do local partners embrace the concept of ADAPT PLAN and associated planning and implementation approaches propagated by the project?							x	x
8) Have you been involved in monitoring and evaluation of the project?				x		x	x	x
On Reporting:								
1) Do you fully understand UNDP and GEF project reporting requirements?				x	x		x	
2) Are these in line [or supportive] of the Government of Malawi's reporting requirements?				x	x			
3) How many reports [PIRs] has the PMUproduced? Have you had any feedback from UNDP, GEF, the Federal and District Governments on the reports?			x	x				
4) How many technical reports has the project produced?				x			x	
5) What needs to be done to improve the quality of reports and publications produced by the project?				x		x	x	
6) Have lessons learned from adaptive management been documented and used?			x	x			x	
On Communication:								
1) What communications and awareness raising material has been produced and how is it disseminated?			x	x	x	x	x	x
2) Does the project follow a communication strategy? If yes, what are its components?			x	x	x		x	
3) How is the knowledge management system of the project?			x	x			x	
4) How do you ensure that the project's experiences inform policy and practice?	x		x	x	x		x	
5) What do you know about the project? Where have you received the information from?		x				x	x	x
6) How is the information flow between project partners?	x	x	x	x	x	x	x	x

Evaluation Question	Project Board	GEF OFP	UNDP	PMU	NPD	MNREM	IPs	Beneficiaries
On Sustainability:								
1) What results do you think the project will deliver that will be sustained?	x	x	x	x	x	x	x	x
2) How will you sustain the benefits after project closure?	x		x	x	x	x	X	x
3) What risks jeopardize the sustainability of results and what can be done about minimizing them?	x		x	x	x		X	X
4) More specifically, what are the mechanisms for ensuring institutions and governance sustainability? Financial sustainability? Environmental sustainability? Socio-economic sustainability?			x	x	x			
5) Does the project create any social tensions that may result in negative outcomes?				x		x	x	x
6) How do you think financing of ADAPT PLAN will be maintained after project closure?	x	x			x	x	X	X
7) What should the project/UNDP/Government do between to secure long-term sustainability?	x	x	x	x	x	x	x	x
8) How did project outputs impact your life / your natural surroundings?						x		x
9) What would you say is the greatest impact of this project in your view, and why	x	x	x	x	x	x	x	x
10) What good practices did you experience related to implementation and how did they influence the implementation and achievement of results?				x		x	x	x
11) What lessons have you derived from dealing with either challenges or good practices and how have you captured and/or shared them?				x			X	
12) What do you think should be adjusted in order to increase the effectiveness of project implementation and increase chances of sustaining the impacts?	x		x	x	x	x	x	x
In general:								
1) What issues should the TE look into that we have not yet discussed?	x	x	x	x	x	x	x	x
2) Please summarize the challenges faced by the project on any aspect	x	x	x	x	x	x	x	x
3) Please summarize the good practices you would like to share with the TE on any aspect of the project	x	x	x	x	x	x	x	x
4) Summarize recommendations, if any for the future	x	x	x	x	x	x	x	x
5) Any other issues	x	x	x	x	x	x	x	x

Guidelines for Conducting FGDs

Introduce yourself and explain the purpose of the visit. Explain that this is a normal project evaluation process, everyone is encouraged to participate and get his/her views heard and names of the participants will be kept anonymous to the authorities. Participation in this discussion is purely participatory. Where possible, record the opinion by show of hands.

1. How do you rate the project design in capturing the challenges relevant for ADAPT PLAN in Malawi/your region?

2. In your view, was the project formulation process participatory and why?
3. To what extent does the project address your/your region's/your country's most urgent priorities in terms of sustainable management of forests, water, and agriculture?
4. In which way do the project design and implementation consider specific priorities and needs of women and disadvantaged groups?
5. What training have you received from the project?
6. Have you formed any community association to jointly implement project activities?
7. How much income has been increased in your household, after following project guidelines?
8. What do you do with the increased available income? Spendings on food, health, education, etc.
9. What other benefits are you deriving from the project?
10. Do you receive timely weather forecasts and you plan your farming practices or preparations for disaster[s] based on the forecasts?
11. How actively did you participate in the preparation and implementation of Village Development Plans?
12. How much are the post-harvest losses? Are you using any pest control practices? Is there any reduction in losses due to pests because of the timely use of pest control practices?
13. Do you practice disaster risk management practices that were learned from the project? Is there any significant reduction in losses due to disasters, after you received training in disaster risk management?
14. What would you do differently – or needs to be modified for similar projects in the future?
15. Have you been involved in monitoring and evaluation of the project [participatory monitoring]?
16. Were there any delays in project implementation and if yes, what were the reasons and how were they tackled?
17. Do local partners embrace the concept of ADAPT PLAN and associated planning and implementation approaches propagated by the project?
18. What role UNDP has played in the execution of the project?
19. Have you received any brochures/leaflets/electronic forecasts from the project?
20. What do you think about the continuation of project activities, after project completion? Do you think that you/community organization/districts will be able to continue the project interventions? Who will provide the funds for such interventions?
21. Describe briefly the positive impacts that the project has made in your lives?
22. Any negative impact of the project? Any social tension arose due to project interventions or the distribution of benefits across the beneficiaries' population?

Annex 7 Progress toward Results Matrix

PROJECT GOAL: To strengthen consideration of climate change adaptation needs in decentralised and national development plans

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
To strengthen consideration of climate change adaptation needs in decentralised and national development plans *Link to AMAT* *AMAT Outcome 1.1-* ***Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas*** ***AMAT Outcome 2.2-Strengthened adaptive capacity to reduce risks to climate-induced economic losses***	Adaptation actions implemented in national/ sub-regional development frameworks (Outcome 1.1 and 2.2, AMAT 2.2.1) ***AMAT Output 2.2.1*** *Adaptive capacity o national and regional centres and networks strengthened to rapidly respond to extreme weather events* ***AMAT Indicator 2.2.1.1*** No. of staff trained on technical adaptation themes (per theme) –	Communities are highly vulnerable to climate change and adaptive capacity is not supported within the development planning framework at the national or local level	Development frameworks that include specific budgets for adaptation actions - 3 ministries and 3 DDPs	Adaptation to climate change at the start of the project was in abstract form. Achievement of results has varied across different outcomes but given the design of the project where results were interlinked from one outcome to another, there has been tremendous progress in outcome 2 with more than 100% achievement, followed by outcome 3 and outcome 1. The project contributed both at the macro- and micro level. At the macro level, the project contributed in the development of district plans, Malawi Growth and Development Strategy III, National Resilience Strategy, National Climate Fund, Medium-Term National Development Plan which was completed in 2018, Expenditure Review on Climate Change and its indicators. The contribution was in the form of identifying indicators and entry points for adaptation to climate change, revision of planning tools for appraising projects to include indicators for adaptation to climate change, supported structures and policy instruments as a basis for mainstreaming adaptation to climate change. The public expenditure reviews strengthened the level of analysis and negotiating power to policymakers by providing evidence and demonstrating the importance of raising domestic financing to address the impacts of climate change at the national level. The expert working group on	At the macro-level, the project facilitated advocacy for CCA and provided inputs for the following policy documents: 1. Malawi Growth and Development Strategy III (2018-2023) 2. District Development Plans for 3 programme districts 3. National Resilience Strategy 4. Expenditure Review on climate change 5. Preparation of COBRA 6. Establishment of National Climate Change Management Fund 7. Community-Based Management Plans 8. Community Managed Disaster Risk Reduction Plans 9. Sectoral Guidelines for Integration of Climate Change Adaptation in Development Planning 10. Guidelines for analysing climate change budgets in the districts 11. The state of Environment and Outlook Ntcheu District The MGDS III identified the following major projects in agriculture, water development & climate change: ▪ Shire valley transformation programme (water supply and irrigation) ▪ Green Belt Initiative ▪ Small Farm Irrigation Project ▪ Construction of new water reservoir on Likhubula River in Mulanje to Blantyre ▪ Agriculture infrastructure and youth in agribusiness project	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
	(disaggregated by gender)			adaptation to climate change was very instrumental in localizing adaptation, identifying metrics for measuring adaptation to climate change and validating technical studies which led to tools that were used as entry points for mainstreaming adaptation to climate change in planning. The project undertook Community Based Resilience Analysis (COBRA) which helped communities to develop community adaptations plans which led to the development of district adaptation plans. Based on these tools, the project reached to 8,465 households, in terms of demonstrating adaptation, against at end of project target of 5,800 households. The revised DPPs and the capacity that has been built up by the project in terms of trained duty bearers and poor community members in CCA will lead to further scaling up. Under Outcome 3, the project has enhanced access to weather and climate information, reaching out to some 80% of the target population in the districts through different media- mainly extension workers and radio.	▪ Combating deforestation and forest degradation for sustainable rural development ▪ Lake Malawi water supply project ▪ Lilongwe water project The other priority areas identified by MGDS III are education, transport and infrastructure development, health and population management and tourism, which indirectly support poverty alleviation and human development which are important elements in poverty-environment nexus. The project has reached to 8,465 households as against the target of 5,800 households (see Annex Table 1), which is a highly impressive achievement. During community consultations, questions were asked about their knowledge about climate change and found that almost all were aware of the climate change issues, reasons, adaptation technologies and are receiving weather forecasts from extension workers and radio programmes.	
Outcome 1. Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level *AMAT Outcome 2.3* ***Strengthened awareness and***	Stakeholder-driven adaptations are specified and budgeted within District Development Plans and Village Actions Plans	Adaptation does not feature in appropriate development frameworks and thus is not owned by the population	At least 3 DDPs and 3 Village Action Plans	Three Village Action Plans (VAPs) have been developed, and three DDPs have been drafted, public expenditure reviews conducted both at the national level and in three pilot districts. The results of different assessments contributed to entry points for developing socio-economic profiles for the three districts, which include identifying indicators and preparing plans and monitoring and evaluation as well as resourcing tool for the implementation of	The project took a number of initiatives in this regard, which are: ▪ Trained district staff in CCA technologies, gender mainstreaming, climate change budgeting and expenditure analysis, weather forecasting, preparation of state of the environment and outlook report ▪ The project assisted in the preparation of DDPs, of which Zomba DPP is finalized and others are in draft form. The Zomba DPP identifies the priority areas, projects along with estimated cost and funding gaps. This	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
ownership of adaptation and climatic risk reduction processes at local level	(Outcome 2.3 AMAT 2.3.1) ***AMAT Output 2.3.1*** *Targeted population groups participating in adaptation and risk reduction awareness activities* ***AMAT Indicator 2.3.1.1*** *Risk reduction and awareness activities introduced at local level*			development programmes. Tools for appraising development projects have also been adjusted to include CCA indicators, and this has enabled the planning process to the mainstream adaptation to climate change. Implementation of these plans includes a number of training sessions from community to district staff. The transfer of skills has helped to shape an understanding of policymakers and different stakeholders who make decisions regarding the allocation of resources for development planning to have risk-informed perspective when endorsing plans. The project has implemented the adaptation plans in all three districts, reaching out to 8,465 against the end of project target of 5,800 with a range of adaptation options that have enhanced the adaptive capacity of communities from economic, social and biophysical aspects of adaptation.	is a very good advocacy document to convince the donors for enhanced financing. ▪ The project assisted in COBRA in all the programme districts and developed VDPs. ▪ A sample plan of Wanyemba village, TA Champiti was reviewed and found to be interesting. It identifies the issues in the village, priority interventions and estimated costs. ▪ CCA expenditures reviews at the district levels were conducted which provides the basis for an increased allocation. ▪ National and District staff (81 males, 69 females, total = 150)were trained to implement CCA technologies and monitoring of achievements.	
	Number and type of targeted institution with increased adaptive capacity to minimise exposure to climate variability.	Not specified in ProDoc	Not specified in ProDoc	With regards to capacity building-30 national-level government staff (21 men and 9 women) and 55 district staff (19 women and 36 men) benefited from the capacity building initiatives on CCA integration. The staff have increased capacity on CCA integration and are being used as resource persons to follow up programmes on CCA and resilience. COBRA training of trainers provided to 45 district sectoral staff in programme districts has	The project focused on the capacity building of EAD, MFEPD, MAIWD, LDF and staff of District Councils in COBRA, development of plans and policies, CCA and gender mainstreaming, budgeting and expenditure reviews and development of CCA indicators. It also worked with the DCCMS which enabled to provide 1-day and 5-day intervals forecasts in the programme districts. The project conducted a training needs assessment, baseline survey on CCA in the	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
	(Outcome 2.3 AMAT 2.3.1.1) ***AMAT Indicator 2.3.1.1*** *Risk reduction and awareness activities introduced at local level*			made them champions of resilience/adaptation capacity building, district planning and budgeting. This helped project staff and communities to develop Community Based Adaptation Plans that have contributed to effective mainstreaming of CCA into development planning processes at district levels. The project supported 3 national-level departments (EAD, MFEPD and LDF) for them to facilitate capacity building to district staff to effectively integrate CCA strategies into the DDPs (2017 - 2022). 30 national level Government staff (21 men and 9 women), and 55 district staff (19 women and 36 men) benefited from the capacity building initiatives on CCA costing and integration into sector strategies. 33 district-level staff and other stakeholders (13 women and 20 men) were trained in climate costing, budgeting and gender mainstreaming so that they can incorporate issues of budgeting in the district plans. 32 district staff (11 women and 21 men were trained in environmental screening and safeguards in order to integrate CCA in district level development planning. Environmental safeguards integrating climate change adaptation were developed in liaison with LDF and have been adopted by District Councils. The integration of CCA in these planning tools is being adopted by government and has provided a significant basis for the sustainability of project results.	programme districts and provided training to 30 national and 120 district staff in various themes. The total number of males trained was 81 and females 69.	
Outcome 2. Diversified and	Livelihoods of 5,800 people	Indicator score = 1	Indicator score = 3	The project reached 8,465 households, against a target of 5,800. An array of	The project assisted 8,465 households as against the target of 5,800 households	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
strengthened livelihoods and sources of income for vulnerable people in target areas. *AMAT Outcome 1.2* ***Reduce vulnerability in development sectors*** *AMAT Outcome 1.3* ***Diversified and strengthened livelihoods and sources of income or vulnerable people in the targeted area*** *AMAT Outcome 2.3* ***Strengthened awareness and ownership of adaptation and climate risk education processes at local level***	strengthened and made climate-resilient following training in, and tangible support for, risk-resilient livelihood activities according to their particular geographical locations (Outcome 1.2 and 1.3 AMAT 1.2.10 and 1.3.1.1) ***AMAT Indicator 1.3.1.1*** *% of targeted households that have adopted resilient livelihoods under existing and projected climate change*		Risk reduction and awareness activities implemented for 5,800 households in Nkhata Bay, Ntcheu and Zomba: • agricultural diversification, • sustainable forest management, • erosion control/sustainable land and water management, • resilient livelihoods	adaptation activities were demonstrated and implemented in all the programme districts. For details, please see Annex Table 1.	mentioned in the ProDoc. The breakdown of various adaptation technologies in programme districts is given in this Annex Table1. Notably, the project covered 13 TAs, activated/organized 80 Savings and Loan Groups, got 7 cooperatives registered with the MITT, implemented 10 irrigation schemes covering an area of 145 ha, organized 35 beekeeping groups, planted nearly one million tree saplings, installed 36 water pumps (boreholes) benefiting 10, 249 households and organized 46 livestock groups.	
	Relevant risk information disseminated to	Climate risk information (1 day through to	70% of the 5,800 households regularly receiving climate risk information	Awareness meetings on weather forecast information were carried out to 4,060 households (2,436 women and 1624 men) in	The project engaged the DCCMS which provided awareness and use of climate information. The DCCMS provided 1-day and 5-day interval weather forecasts to the MAIWD	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
	stakeholders (Outcome 2.3 AMAT 2.3.1.1) ***AMAT Indicator 2.3.1.1*** *Risk reduction and awareness activities introduced at local level*	seasonal forecasts) exists and is communicated at the national level but rarely makes it through to local level		all the programme districts. The seasonal forecast was made and disseminated every season before the rainy season and the contribution of this project to the process enabled implementation of adaptation plans in outcome 2 and safeguarding communities from climate risks. The project engaged DCCMS to train farmers and communities in the programme districts on weather forecasting. The published report demonstrates to the communities results of climate forecasts made traditionally and by using various climate models. The training was imparted to 800 farmers and communities (480 women and 320 men) representing their fellow beneficiaries. 80% of the target households (4,640 – 2,784 women and 1,856 women) initially started receiving localized climate risk information regularly from DCCMS through national radios, community radios, and newspapers compared to the 70% project target. At present 90% households (3,132 female-headed) are currently receiving regular 5-day interval localized weather and climate risk information. The project is collaborating with a GCF funded M-CLIMES initiative in supporting the dissemination of weather forecast information through radio spot messages and phone SMS and community awareness meetings. The GCF supported initiative is further investing in Participatory Integrated Climate Services for Agriculture (PICSA), a tool which prepares farmers to make an informed decision before a rainy season (for rainfed agriculture) and will greatly	which then translated the meteorological forecasts into agricultural forecasts. The medium of outreach was mainly the extension workers and community radio programmes. In this way, the project reached to more than 80% population in the programme districts . The project is collaborating with a GCF funded M-Climes initiative in supporting the dissemination of weather forecast information through radio spot messages and phone SMS and community meetings.	

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
				supplement and complement results from this project.		
Outcome 3. Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas *AMAT Outcome 1.1* ***Mainstreamed adaptation in broader development frameworks at the country level and in targeted vulnerable areas***	Number of development frameworks and sector strategies that include budget allocation targets for adaptation (Outcome 1.1 AMAT 1.1.1 and 1.1.1.1) ***AMAT Indicator 1.1.1.1*** *Development frameworks that include specific budgets or adaptation actions*	Within the three priority sectors (forestry, water, and agriculture) adaptation is, to varying degrees, hinted at but not explicitly or comprehensively addressed, and nor are effective budgets allocated	3 sector strategies/ for water, forestry, and agriculture and appropriately budgeted adaptation measures	The entry point for adaptation planning is the national development planning cycle. The medium-term development plan for Malawi was the Malawi Growth and Development Strategy II (MGDS II 2011-2016). This development plan came to an end on 30 June 2016, and Malawi was then working towards the development of a successor development plan. Malawi had a gap of 2 years before the successive medium-term development plan was developed. This implied that the project could not directly do analyses and find entry points for three target sectors as anticipated in the project design as the medium-term development plan was only concluded in 2018. Malawi also embarked on the development of an NRS following a series of consecutive humanitarian needs that had cumulative and interconnected impacts. Malawi also committed to developing a climate change fund as a vehicle for coordinating investments for climate change. These became key entry points for influencing change, and the project focus was adjusted to influence CCA in these key planning processes. Given that the project had invested significantly at district level, the project held sessions with the three pilot sectors (water, agriculture and forestry) including the MFEPD, and the Ministry of Local Government and Rural Development to create synergies with the planning at district level and identify entry points leading to their	The achievements of the project in mainstreaming adaptation in broader development frameworks at country-level in targeted vulnerable areas are mentioned under the achievements of development objectives. Clearly, the CCA has been mentioned in the MGDS III and DPPs, and proper projects along with estimated budgets have been identified. The M&E frameworks for monitoring CCA in all the planning documents are well documented.	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
				contribution in the next medium-term development plan for Malawi. The Project supported the mainstreaming of climate change resilience and adaptation in the design of Malawi Growth and Development Strategy (MGDS) III (2018 - 2023). All the inputs from the project were adopted and included in the climate change theme of the strategy. It was launched in March 2018 for implementation.		
	Number and type of targeted institution with increased adaptive capacity to minimise exposure to climate variability. (Outcome 1.1 AMAT 1.1.1 and 1.1.1.1) ***AMAT Indicator 1.1.1.1*** *Development frameworks that include specific budgets or*	Not specified in ProDoc	Not specified in ProDoc	The Project supported the mainstreaming of climate change resilience and adaptation in the design of Malawi Growth and Development Strategy (MGDS) III (2018 - 2023). All the inputs from the project were adopted and included in the climate change theme of the strategy. It was launched in March 2018 for implementation. The Project supported various training sessions on review and updating of guidelines for environmental safeguards and screening tools utilized by the LDF and Public Works Programme. A total of 35 district staff were trained (14 women and 21 men). This resulted in the actual review and updating of environmental safeguards and screening tools by incorporating CCA concepts. The project supported climate change adaptation costing work by supporting a discourse on the establishment of the NCCF for Malawi. A Task-force was formed, stakeholder consultative workshop conducted and a road map for the establishment of the fund was developed. The MGDS III which is a national medium-	The increased capacity to CCA has been enhanced through capacity building- trained staff in CCA at the national and district level and trained communities in CCA, and organizations of various groups to implement CCA technologies and provision of appropriate budget. The project provided training to 150 staff of national and district levels (81 males and 64 females) in climate risk assessment, COBRA, plans, expenditure analysis and CCA and preparation of plans. These staff members are fully equipped to streamline CCA in the district and national plans and policies. The project closely worked with EAD, MFEPD, MAIWD, DCCMS and LDF and the staff of the programme districts. It is anticipated that these departments and their staff will ensure CCA in future programmes.	6 (HS)

GOAL/OBJECTIVE/ Outcome	Performance Indicator	2014 Baseline	2019 End of Project Target	2019 End of Project Status	Terminal Evaluation Comment	Rating
	adaptation actions			term development plan upon which budgeting and resource allocation are based, is now under implementation with CCA indicators and projects of local authorities are approved with CCA safeguards.		

Annex 7 Table 1. Cumulative Project Achievements

Description	Unit	Ntcheu	Zomba	Nkhata Bay	Total
A. Community Structures					
Number of villages covered	Number	22	32	47	101
Number of Traditional Authorities covered	Number	3	3	7	13
Total number of households reached directly	Number	3,081	2,300	3,084	8,465
Total number of male headed households benefited directly	Number	1,385	920	1,076	3,381
Total number of female headed households benefited directly	Number	1,696	1,380	2,008	5,084
Total number of households reached indirectly	Number	7,258	6,909	1,520	15,687
Total number of male-headed households benefited indirectly	Number	4,717	3,385	568	8,670
Total number of female-headed households benefited indirectly	Number	2,541	3,523	952	7,016
Number of Savings and Loans Schemes operationalized	Number	20	17	51	88
Total number of members in Savings & Loan schemes	Number	292	740	1,296	2,328
Total number of male members in Savings & Loan Schemes	Number	93	160	433	686
Total number of female members in Savings & Loan Schemes	Number	199	560	863	1,622
Total number of members benefited from Savings & Loan Schemes	Number	292	300	1,296	1,888
Total number of males benefited from Savings &Loan Schemes	Number	93	80	433	606
Total number of females benefited from Savings &Loan Schemes	Number	199	220	863	1,282
Total number of cooperatives established	Number	0	3	4	7
Total number of households in cooperatives	Number	0	800	425	1,225
Total number of male-headed households in cooperatives	Number	0	386	167	553
Total number of female-headed households in cooperatives	Number	0	414	426	840
B. Irrigation Schemes					
Number of irrigation schemes developed	Number	2	3	5	10
Cumulative command area under irrigation schemes	Hectares	25	30	90	145
Total number of households benefitting from irrigation schemes	Number	240	340	550	1,130
Total number of male headed households benefited	Number	96	117	157	370
Total number of female headed households benefited	Number	144	158	393	695
C. Fisheries					

Description	Unit	Ntcheu	Zomba	Nkhata Bay	Total
Total number of fish ponds developed	Number	5	12	18	35
Average area of fish pond [length x width]	Sq. meter	2,520	4,800	500	5,300
Total number of households benefiting from fisheries schemes	Number	111	232	378	721
Total number of male headed household benefited	Number	59	119	176	354
Total number of female headed households benefited	Number	52	113	202	367
D. Bee Keeping					
Total number of beekeeping groups	Number	3	15	17	35
Total number of members in beekeeping groups	Number	30	300	255	585
Number of males in beekeeping groups	Number	14	115	98	227
Number of females in beekeeping groups	Number	16	185	157	358
Total number of bee hives provided by the project	Number	45	210	200	455
Total number of beehives at present	Number	45	210	330	585
Total amount of honey that has been produced as of now	Kg	30	117	8,415	8,562
Amount of money earned through honey sale	MWK	2,896,000	4,500,000	42,075,000	49,471,000
E. Banana Production					
Total number of banana groups	Number	No activity	No activity	30	30
Total number of households in banana groups	Number	No activity	No activity	600	600
Number of males in banana groups	Number	No activity	No activity	200	200
Number of females in banana groups	Number	No activity	No activity	400	400
Total area planted with banana suckers	Hectare	No activity	No activity	2,000	2,000
F. Citrus Plantation					
Total area planted with citrus plants	Hectare	No activity	5	450	455
Number of citrus plants planted	Number	No activity	1,956	8,000	9,956
G. Mango Plantation					
Total area planted with mango plants	Hectare	No activity	13	No activity	13
Total number of mango plants planted	Number	No activity	5,364	No activity	5,364
H. Vertiver					
Area conserved	Hectare	No activity	30	30	60
I. Tree Plantation					
Total number of nurseries established	Number	18	64	19	101
Total number of saplings raised	Number	224,000	874,124	250,000	1,348,124
Total area planted with trees	Number	74	700,000	257,000	957,074
Total number of saplings sold	Number	118,000	124,000	No activity	242,000
Total number of bamboo seedlings planted	Number	3,000	8,500	No activity	11,500
J. Bore Holes for drinking Water					
Number of bore holes/water pumps developed	Number	4	21	11	36

Description	Unit	Ntcheu	Zomba	Nkhata Bay	Total
Total number of households benefiting from boreholes	Number	2,040	6,909	1,300	10,249
Total number of male headed households benefited from water pumps	Number	988	2,763	427	4,178
Total number of female headed households benefited from water pumps	Number	1,052	4,145	873	6,070
K. Tailoring Group					
Total number of households benefited through tailoring intervention	Number	No activity	No activity	20	20
Total number of males engaged in tailoring group	Number	No activity	No activity	5	5
Total number of females engaged in tailoring group	Number	No activity	No activity	15	15
L. Usisya Community Bakery					
Total number of households benefitted with intervention	Number	No activity	No activity	25	25
Total number of male headed households benefited	Number	No activity	No activity	10	10
Total number of female headed households benefited	Number	No activity	No activity	15	15
M. Livestock					
Total number of groups benefited	Number	7	6	33	46
Total number of households benefited through livestock	Number	260	92	834	1,186
Total number of male headed households benefited	Number	105	37	240	382
Total number of female headed households benefited	Number	155	55	594	804
Total number of goats provided by the project	Number	412	490	382	1,284
Total number of goats at present	Number	463	1,470	821	2,754
The total amount of money earned through sale of goats	Number	306,000	0	230,000	536,000
Total number of weaners provided by the project	Number	30	193	120	343
Total number of broiler chicks provided by the project	Number	97	No activity	2,260	2,357
Total number of pigs at present	Number	697	57	1,184	1,938
The total amount of money earned through sale of pigs	Number	453,000	0	600,000	1,053,000
N. Energy Efficient Technologies					
Total number of households adopted energy-efficient cookstoves	Number	No activity	927	No activity	927

Annex 8. Percentage of Farming Households Selling Agricultural Crops in Malawi

Crop	Produce	Of those producing, who reported any sales	Of those selling, mean portion of harvest sold
Maize	93.6	13.9	35.1
▪ **Local varietis**	52.5	10.9	32.1
▪ **Hybrid, recycled hybrids, or improved open-pollinated varieties**	52.8	16.8	37.1
Groundnuts	25.9	36.1	45.4
Pigeon peas	20.7	26.5	53.9
Beans	8.6	20.7	48.0
Rice	4.7	58.3	49.3
Tobacco	14.4	95.5	86.8

Source: https://elibrary.worldbank.org/doi/abs/10.1596/31131

Annex 9 Evaluation Consultant Agreement Form

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

TE Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Dr. Chaudhry Inayatullah

Name of Consultancy Organization (where relevant): n/a

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *Islamabad* *(Place)* on 31 December 2019 *(Date)*

Signature: _____

Annex 9 Audit Trail (annexed separately)