

General Template of the
Annual Performance Report
(APR)

Reference Number (FP072): Strengthening climate resilience of agricultural livelihoods in Agro-Ecological Regions I and II in Zambia
UNDP

Annual Reporting Period Covered in this Report:
(From 01-01-2021 to 31-12-2021)

Sections in this report:

- Section 1: General Information
- Section 2: Implementation Progress
- Section 3: Financial Information¹ (Excel worksheet attached).
- Section 4: Report on Environmental and Social Safeguards & Gender
- Section 5: Annexes
- Section 6: Attachments

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Please indicate if this report has been shared with the relevant NDA(s) for this Funded Activity - Yes	Date of submission to NDA - 1/03/2022

SECTION 1: GENERAL INFORMATION	
This section provides general information on the funded activity.	
1. Funded Activity Title:	<i>Strengthening climate resilience of agricultural livelihoods in Agro-Ecological Regions I and II in Zambia</i>
2. Funding Proposal Number:	<i>(FP072)</i>
3. Date of Board approval - Board Meeting Number:	3/1/2018 <i>B.19</i>
4. Accredited Entity:	<i>UNDP</i>
5. Focal Point of the Accredited Entity for this Project:	Mr. Benjamin Larroquette email/telephone Benjamin.larroquette@undp.org +919786293578
6. Executing Entity(ies):	<i>Ministry of Agriculture</i>

¹ Please refer to excel worksheet attached "APR Section 3 (Financial Information)". Provide as attachments to this report any detailed additional financial information if required in the Funded Activity Agreement.

7. Implementation Period:	<i>From: 10/12/2018</i> <i>To: 12/10/2025</i>
8. Current year of Implementation:	<i>year 4</i>
9. Date of Submission of the Report:	<i>1/03/2022</i>
10. Annual Reporting period covered in this report:	<i>From: 1/1/2021</i> <i>To: 12/31/2021</i>
11. Total Project Budget²:	<i>137,269,000.00</i>
12. Total amount of GCF Proceeds Approved:	<i>32,000,000.00</i>
13. Total amount of GCF Proceeds disbursed (cumulative) to the Accredited Entity:	<i>16,187,269.00</i>

² Total project budget including co-financing as reflected in the relevant Funded Activity Agreement.

SECTION 2: IMPLEMENTATION PROGRESS

2.1 OVERALL (SUMMARY) PROJECT PROGRESS *(less than one (1) page³).*

2.1.1 Overall Progress achieved since project start

The Strengthening Climate Resilience of Agricultural Livelihoods in Agro-ecological Regions I & II in Zambia (SCRALA) project is in its 3rd Year of Implementation and the 4th APR. The Project has continued to make strides in supporting resilient livelihoods among small-scale farmers, despite the continued threat from COVID-19 pandemic. The project overall progress is on track with a cumulative disbursement of USD16,187,269 and co-financing of USD 65,088,598.00 has been mobilized. Though project implementation is delayed due to Covid and procurement issues, the project has made tremendous progress from early warning systems, provision of agricultural inputs and provision of market access to the farmers. Procurement processes have been undertaken by the IP with a bit more slower government system. To mitigate procurement issues, the IP has since asked UNDP to undertake most of the procurement on its behalf. In addition, UNDP is now has the annual procurement plan approved together with the AWP. This will mitigate the procurement delays as with processes scheduled to be initiated much earlier to ensure delivery according to planned deadlines.

On Output 1, while the implementation has been delayed particularly for activities related to water, owing to delays in finalizing implementation arrangements with RPs, the project has conducted capacity development for 85 (15% females, 85% males) extension staff of the Zambia Meteorology Department (ZMD), in weather data generation, interpretation, and dissemination. The project also installed and commissioned 20 Automatic weather stations, improved the packaging and dissemination of weather information to 234,633 (40% males and 60% females) farmers who have been able to access weather information. This has greatly enhanced the farmers' ability to plan and manage climate risks towards resilient agricultural production, as evidenced in the adoption of climate-smart agricultural practices in conservation agriculture (CA) farming by 154,296 farmers (45% women) and 8,112 (44% women) in alternatives livelihoods.

On Output 2, though implementation of activity 2.1 has been delayed mainly due to covid restrictions, the project continued to support alternative livelihoods and the promotion of CA. Cumulatively, since inception 7,372 farmers have adopted alternative livelihoods. Of these 1,753 farmers (59% males and 41% females) have adopted beekeeping, and 6,359 (44% males and 56% females) have adopted goat rearing.

On Output 3, implementation is on track. Cumulatively, since inception 93,518 farmers (51% males and 49% females) have been trained in Post-Harvest Loss management. In addition, a total of 1,407 farmers (51% males and 49% females) have been trained in warehouse receipting systems. A total of 24,857 farmers (30% males and 70% females) have received financial education training and access to finance through savings groups has been facilitated. Through savings groups, farmers have saved a total of US\$ 373,675 and the amount of cumulative loans accessed is estimated to be about US\$ 297,864 representing a loan utilization rate of 79.7%.

2.1.2 Progress in 2021

Under Output 1, the project installed and commissioned a total of 20 automatic weather stations (AWS) across the 16 districts. It further rehabilitated ZMD studio and built capacity in 71 extension staff (18% women, 82% men) at district level. The project further facilitated the production of the 2021/2022 weather forecast⁴ that was disseminated to a total of 234,633 farmers (40% women, 60% men)⁵.

Under Output 2, a total of 138 boreholes out of the planned 158 were constructed, 2 irrigation schemes nearing completion are to be commissioned by March 2022. The procurement for works on 2km canals, 2 weirs, and 20 fishponds is underway and expected to be concluded by Q1 2022. The project has further supported resilient agricultural practices through training and provision of inputs led by Food and Agriculture Organisation (FAO). The project trained a total of 76,230 farmers (45% women, 55% men) in CA from a target of 77,690. It has set-up 7,081 CA demonstration plots for climate change adaptation options with 40% women representation across the 16 districts. The government has continued to show commitment to the smallholder farmers by supporting farmers through the Farmer Input Support Programme (FISP), with an increase in co-financing expenditure to \$61,718,717 on 100,133 farmers (48% women, 52% men) in the project district areas. In promoting alternative livelihoods, the project distributed beehives to support 1,523 farmers (44% women, 56% men) and 746 farmers (54% women, 46% men) benefitted from the goat pass-on mechanism.

Under Output 3, to promote market access, 3 bulking centres (2 completed and 1 to be completed by Q1 2022) have been constructed to support 5,987 farmers (45% males and 55 % females). The delay in completion was due to Covid which caused delayed certification of works. For improved market access, World Food Programme (WFP) launched the virtual farmers market application, "Maano App" and trained 1,146 framers (51% women, 49% men) in warehouse receipt system. Additionally, 75,887 (44% women, 56% men) were trained in post-harvest loss management. The project has also facilitated the financial access of

³ Please remove text below to fit report to one page. Additional reports can be provided as other attachment to the APR.

⁴ Ministerial statement in Parliament by the Minister of Green Economy and Environment

⁵ Weather bulletins by ZMD

farmers through the formation of savings groups. As a result, a total of 19,291 farmers (70% women, 30% men) are accessing financial education programmes related to credit and insurance schemes.

2.1.3 Risks and Impacts

The project faced several risks in 2021. Nonetheless, the risks triggered were of low magnitude, site specific, temporal, and easily managed, these include the following

Adoption of resilience strategies: Some of the activities implemented triggered risks related to low adoption of climate-resilient agricultural practices due to the perceived labour-intensive perceptions related to adoption of CA technologies.

Climate related: The occurrence of flash floods caused some roads to certain districts be inaccessible thus affecting project implementation.

Financial: Some districts under the project had challenges in reporting expenditure timely, the cause of the challenge was inadequate staffing levels of qualified personnel in the respective finance departments in the districts hence, UNDP organized a capacity development seminar for all government officials involved in the implementation of the project to enhance their skills in harmonised approach for cash transfer (HACT), M&E financial reporting, budgeting, and environmental social safeguards.

Covid 19: The third wave prevalence during the period under review affected the rate of implementation resulting in disruption to logistic and supply chains affecting delivery of timely procurements, reduced field activities, monitoring, and backstopping activities. therefore, to address this challenge, the project introduced dedicated online meeting/missions to provide online backstopping and monitoring, advance scheduling of procurements etc.

These risks were mitigated through adherence to a robust Environmental Social Management Plan (ESMP) and the WHO COVID 19 prevention guidelines.

Adherence.

2.2 Performance against the GCF Investment Criteria (summary) (max two (2) pages).

2.2.1 Impact Potential (max one (1) page).

The project has already started to exhibit impact in a number of areas including improving capacity to plan and manage climate risk, making livelihoods more resilient agricultural to changing rainfall, increasing drought and occasional floods with improved climate information and early warning systems, and increased sharing of information on climate smart agricultural practices among other impact areas.

Adaptation impact potential

The SCRALA project supported strengthening of the capacity of farmers to plan for climate risks that threaten to derail development gains, promote climate resilient agricultural production and diversification practices to improve food security and income generation, improve access to markets, and foster the commercialization of climate-resilient agricultural commodities. The project's interventions would help build climate-resilience, food security and poverty reduction measures for 946,153 individuals or 157,692 households.

Under Output 1, "the improved capacity to plan and manage climate risk", the project has strengthened the capacity of the Zambia Meteorological Department (ZMD) to generate climate information through the installation of weather infrastructure and the downscaling of the weather forecast for 2021/2022 season to site specific project areas. The dissemination of weather information was enhanced through the rehabilitation of the weather studio that has resulted in improved packaging of weather information and 234,633 farmers had access to more accurate and localised advisories that enabled them to make informed decisions on planning and managing climate risk. Therefore, farmers in the project areas relied on the agricultural advisories that recommended planting early maturing varieties since the onset of the rain season was delayed. Clearly the availability of localized weather forecasts is contributing to strengthening the climate adaptive capacity of the small-scale farmers in the project areas.

In addition, the project formed 17 Water User Associations that would facilitate management and conservation of water resources.

Whilst under Output 2, "Resilient agricultural livelihoods are promoted in the face of changing rainfall, increasing drought and occasional floods", the project undertook interventions that included:

- Improving access to water for irrigation, livestock watering and household water supply through the construction and development of 138 boreholes, for 17,940 beneficiaries, construction of two irrigation schemes which is at over 60% completion stage, with 125 households benefiting
- Training 251 (47% women, 53% men) small scale farmers in seed multiplication, 100,133 (48% women) farmers receiving drought resistant from GRZ co-financing an increase of 12,234 farmers to last year 87,899 farmers.
- Training 76,230 (49% women, 51% men) farmers in Conservation Agriculture in 2021 and cumulatively from project start a total of 154,296 (46% women) trained in CA
- Training and supporting 1,753 (59% males and 41% females) small scale farmers with inputs to adopt alternative livelihoods in beekeeping
- Increased the adoption of alternative livelihoods in goat rearing amongst 6,359 (44% males and 56% females) beneficiaries
- Training and active participation of 6,300 (52% males, 48%men) farmers in 180 farmer field schools and 2 leaning centres in all the 16 districts.

The project promotes a value chain approach to increase household incomes through market access, and the activities that were implemented during 2021 resulted in the following achievements during the reporting period.

- 75,887 (49% women, 51% men) were trained in Post-Harvest Loss Management
- 689 (55% males and 45% females) officers trained in the savings for change methodology
- Cumulatively 24,857 (70% women 30% men) households were provided with financial education programmes related to credit and insurance schemes (SFC membership).
- Scoped 847 (37% women, 63% men) traders, cooperatives, Agro-dealers or out growers in preparation for aggregation
- Trained 948 (63% women, 37% men) aggregators in market access both in the newly launched virtual farmer market "Maano app" and in aggregation
- Trained 1,407 (49% women, 51% men) farmers in the Warehouse Receipt System (WRS)

Increased availability of household incomes has enabled farmers to invest in a wide range of alternative livelihoods that is expected to contribute towards enhancing their capacities to adapt to climate change.

Key impact indicator

From the total intended project beneficiaries of 946,153, the project had a cumulatively reached 234,633 (40% males and 60% females) beneficiaries with access to improved climate information, weather and agricultural advisories disseminated by ZMD. The improved access to information has enabled a total of 154,296 (46% women) CA farmers to plan their farming activities effectively and hence managing potential climate risks.

2.2.2 Paradigm shift potential (max one (1) page).

Potential for scaling up and replication

The project's interventions have so far demonstrated that the theory of change is viable with great potential for replication outside the project areas. 131,878 farmers were provided with access to weather information in addition to agricultural inputs and this has contributed to improved crop yields per unit area. These results could be attributed to availability of weather forecasts and other climate information for improved adaptation planning that address climate risks by the farmers. There is now evidence of improved crop production resulting from use of climate smart agriculture practices.

In addition, support to extension services was enhanced through capacity development in interpreting Agrometeorology data and procurement of 9 quad bikes for improved mobility of extension staff. The training resulted in improved dissemination of weather and agricultural advisories. Three bulking centres are nearing completion and will be handed over to the cooperatives in early 2022 while 948 (37% women, 63% men) cooperatives have been trained in aggregation and market access. Lastly, markets have been sourced for the beekeeping farmers in Rufunsa district which will attract fair prices for honey and honey products and increase income for the rural households.

Many rural farmers face similar vulnerabilities to climate change risks and poverty. Therefore, the positive results the project is producing on reducing farmers vulnerability to climate change and income poverty, provide good practices and lessons that can be replicated in all parts of Zambia for addressing climate risks and improving incomes of rural households. As a procedure, the project ensures that land consent through a formal signed agreement from the community is obtained before project can continue implementation of activities. This is a statutory requirement based on the land management systems in Zambia.

Potential for knowledge sharing and learning

The project set up 180 Farmer Field Schools across the 16 districts that maximised documentation and learning for different climate adaptation management options to the farmers. In 2021, trials for different crop varieties were conducted in demonstration plots across 8 districts, this gave an opportunity for the farmers to appreciate characteristics such as disease resistance, drought resilience and nutritional potential. The knowledge gained helps to make informed decisions in the planning for the following agricultural season. The impact evaluation survey conducted by IPSOS Zambia, in 2020, working in cooperation with Centre for Evaluation and Development (C4ED), collaborators on the GCF Learning-Oriented Real-Time Impact Assessment (LORTA) initiative, provided evidence of tangible results linked to project activities, lessons learnt and good agricultural practices (GAP), see attachment A1. The documented lessons will be shared through various platforms to inform rural farmers in the project sites and beyond on climate smart agricultural farming systems for adapting to climate change.

Contribution to the creation of an enabling environment

For SCRALA, or any other intervention to succeed in many rural parts of Zambia, the project must make investments in developing human resources at all levels. UNDP conducted a capacity development training for 80 (18% women, 82%men) government officials in planning, financial reporting, monitoring and evaluation, environmental social safeguards and Gender mainstreaming using a Gender Action Plan (attachment A18). WFP and FAO in the same period conducted various trainings for extension officers in aggregation, post-harvest loss management and market access. There was collaboration between project stakeholders MoA and UNDP senior management who had regular meetings each quarter to review project performance and give management oversight to the project and this enabled quick resolution of issues. Also, the MoA, UNDP, and WFP conducted joint monitoring missions that allowed management to interact with each other and the beneficiaries and was as such able to provide more targeted support to the management of the project (see attachment A3).

Contribution to the regulatory framework and policies

The UNDP through the project participated in the environmental protection dialogue whose theme was “Better Policy Decisions for Ecosystem Restoration, Sustainable Energy and Climate”. The forum reaffirmed its recognition that environment is critical and an indispensable prerequisite for sustainable development and pledged its commitment to achieving economic, social and environmental sustainability aspects (attachments A9, A11, A12). Due to COVID-19 restrictions, the Technical Committee on Climate Change (TC) as well as the Steering Committee on Climate Change (SC) only met twice, compared to 2020 when they met four times. Both committees have representatives from the NDA-Ministry of National Development Planning, including the National Coordinator in the TC meetings. In addition, senior representatives, including Permanent Secretaries and the Directors of at least seven ministries and additional agencies and departments attended the meetings in which SCRALA was one of the main initiatives reviewed. In this way, although the project is not having a direct role in policy and regulatory framework development, it does serve as an example of a resilience building climate change project.

2.2.3 Sustainable development potential (max one (1) page).

The SCRALA project is by design aimed at strengthening climate resilience of agricultural livelihoods by increasing their climate change adaptive capacity and reducing climate vulnerability. Given the added layer of challenges climate change imposes on socio-economic development efforts, the project is, by addressing climate change, contributing towards Zambia’s attainment of sustainable development.

Environmental co-benefits

The project is premised on ensuring that its activities are environmentally friendly and do not by any means, contribute to environmental degradation. While the project activities are designed to mitigate and adapt to climate change, the investments in Climate smart agriculture technologies and practises have multiple environmental co-benefits. During 2021, the project promoted several climate change response measures including conservation farming, manure application and beekeeping and associated forest conservation and management. Other environmentally beneficial interventions included ground water harvesting through borehole construction and formation and operationalization of water user associations, use of Agro-forestry techniques, and afforestation interventions by project communities.

The climate smart proactive strategies in the project areas have also been enhanced through Community participation in safeguarding the environment through Environmental and Social Safeguards (ESS) committees.

Social co-benefits including health impacts

The project strongly integrated the full agriculture value chain from on-farm production, post-production to markets, and thereby contributing to improved incomes, food security and wellbeing of farmers. With increased production due to adaptation of farming to climate change, farmers can meet their food requirements and generate incomes from various farming and alternative livelihood activities. These are important in enabling communities meet some of their social needs such as education and health among others. This clearly demonstrates the social co-benefits of climate related project activities for communities. It is

anticipated that, as more farmers adopt the various climate change adaptation farming practices, the project will increasingly contribute significantly to realization of social co-benefits beyond improved food security, nutrition, and household incomes.

Economic co-benefits

The SCRALA project continued to avail diverse income generation opportunities for the target farmers through alternative livelihood interventions, distribution of inputs and financial education programmes related to credit and insurance schemes. From the first set of goat beneficiaries, 3,367 (56% women) have successfully passed on the seed goats to secondary beneficiaries, and they now have livestock assets to the value of \$452,709 from 20,371 goat population. This asset value is expected to triple by end of 2022 as assets from second goat beneficiaries will be mature for inclusion, the project continues to offer training to beneficiaries in goat management. The project facilitated farmer access to market through trade in crop commodities that included maize, soya beans, groundnuts, cowpeas, and oranges maize to a tune of 2,867 MT valued at ZMW 4,387,418 (USD 258,083) from 1388 farmers (41% women). Through farmers participating in savings groups, farmers have been provided with a platform to access financial services for purchase of agricultural inputs and investments into small scale alternative livelihood businesses. Through the Savings for Change Groups, 19,291 (67% females) farmers saved a cumulative amount of ZMW 5,877,913 (US\$ 373,675) in 2021. Cumulative loan accessed from savings was ZMW 4,578,177 (US\$ 297,864) by December 2021, representing a loan utilization rate of 79.7 percent. Farmers have also reported that they can address additional household needs through sale of goats and those in beekeeping have reported extra income from the sale of honey. Business management trainings were also offered as part of the savings groups training package. Among the common businesses' farmers have engaged include rearing of chickens for sale, grocery shops, trading in fresh fish, fabric, chicken feed and dry vegetables. These ventures have also provided some form of employment and income generation opportunities for youth.

Gender-sensitive development impact

The project has been cognisant of the gender biases in the agriculture sector and therefore ensured that all interventions were gender-responsive and addressed climate impacts that tend to disproportionately affect women and girls. Beneficiary targeting was used to ensure that women were incorporated in several project activities and as a result, women accounted for 48% of the beneficiaries of all activities implemented in 2021. The following gender responsive activity level results were achieved:

- Specific efforts targeting increased participation of women in project activities were used in 2021. For example, in some districts, Camp Extension Officers sensitized men on the importance of including and involving women during community meetings by using gender sensitive facilitation methods. This led to the increased participation of women in decision making and implementation of project activities.
- Women were empowered through enhancing their access to climate information services critical for managing climate risks, finances (through savings groups) as well as to agricultural inputs such as seed, rippers, and sprayers.
- A good proportion of women (51%) were also targeted and participated in alternative livelihood activities such as goat rearing and beekeeping for increased incomes.
- Farmers were also exposed to awareness raising on improved nutrition and avoiding exploiting gender based traditional norms that perpetuate exclusion of women from active participation in project activities.
- The introduction of savings groups in the 16 districts which are predominantly women with at least 67% women, has promoted women involvement in leadership positions within the savings groups. This has been through facilitation of capacity development through trainings in financial literacy and leadership.

2.2.4 Needs of the recipient (max one (1) page).

Country needs

Zambia has continued to be affected by climate hazards including frequent and recurring floods, droughts, and high temperatures. These continue to adversely affect the productivity of the agriculture sector resulting in food insecurity⁶, reduced income for rural communities which basically renders small-scale farming as a vulnerable livelihood system. According to the **latest IPC Acute Food Insecurity** report from Oct 2021 and March 2021, it is estimated that "the country's food security situation is expected to deteriorate, with around 1.58 million people to be affected". This means the livelihoods of the vulnerable rural communities would be at risk. Crop production is further compounded by increased occurrences of vices such as pest (army worm's) infestation of crops, animal diseases and volatile market prices.

To address these challenges the project made concerted efforts towards addressing farmer vulnerability to climate change by strengthening provision of timely early warning and climate information services, promotion of climate smart agriculture inputs and extension services; promoting alternative livelihoods that are less dependent on rain patterns and insuring farmer access to markets and sound financial management knowledge.

⁶ <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1155081/?iso3=ZMB>

Needs of the Project Beneficiaries

Smallholder farmers in Zambia contribute a significant share of agricultural production. However, these farmers are also the most vulnerable to climate change impacts due to their limited adaptive capacities. This is because of several factors including limited access to weather information and agricultural advisories, appropriate agricultural inputs such as drought resilient seed, access to finances, processing and storage facilities, markets, and their reliance on rain fed agriculture. Considering the above, the project in 2021 implemented several activities addressing some of these challenges. For instance, 234,633 farmers were provided with weather information and agricultural advisories that has improved their planning of farming activities, 75,887 farmers were trained in post-harvest management techniques that has addressed post-harvest losses. Over 8,000 small scale farmers and Agro-dealers were introduced to the Maano digital market app which enables them to market and sell their produce to potential buyers from anywhere around the country. A total of 19,291 farmers are members of savings groups that have increased their access to finances, and 8,112 farmers are practicing alternative livelihoods as a way of diversifying their income sources.

2.2.5 Country Ownership (max one (1) page).

Existence of a National Climate Response Strategy and coherence with existing plans and policies, including the 7th National Development Plan and the Nationally Determined Contributions (NDCs) and the National Agriculture Policy (NAP).

The government has highlighted agriculture as one of the key areas in its Vision 2030 agenda, the Seventh Development National Plan (7DNP) and in the Nationally Determined Contributions (NDCs). However, the sector is vulnerable to the effects of climate change due to its over dependence on rainfall. To adapt to climate change, the government has put in place several legal frameworks which are mainstreamed in sector policies. The principal policy for the agriculture sector under which the SCRALA project is being implemented is the National Agricultural Policy (NAP). The policy is updated periodically to address environmental, social and economic emerging issues affecting the sector. The overall objective of the Policy is to accelerate reduction of food and nutrition insecurity, promote poverty reduction and to increase agriculture sector productivity, job creation and contribution to GDP. Government policies and strategies specific to addressing climate change include:

- The National Policy on Climate Change
- The Nationally Determined Contributions (NDCs) that has highlighted agriculture as one of the priority sectors for enhanced climate action in contributing to the Paris Agreement
- Second National Agriculture Policy
- National Adaptation Plan of Action
- The National Adaption Plan for the agriculture sector
- Draft National Climate Change Response Strategy
- Nationally Appropriate mitigation Actions (NAMAs) which include the agriculture sector

In 2021, the project effectively contributed to the implementation of the strategies and polices through promotion of Climate Smart-agriculture. The project further promoted climate resilient alternative livelihoods including goat rearing and beekeeping which also have climate mitigation co-benefits.

Capacity of accredited entities and executing entities to deliver

The accredited entity and executing entity have demonstrated capacity to deliver the project objectives. Trainings and provisions of technical support to strengthen the capacities of the ministries involved in the implementation of the project has been on-going resulting in effective coordination and management of the project. To effectively contribute to the global goal of addressing the climate change challenge, the government has established institutions and committees that are spearheading the planning and implementation of climate change response actions. Among such institutions is the Technical Committee on Climate Change and the Department of Climate Change established under the new Ministry of Green Economy and Environment.

In 2021, the following capacity building trainings were facilitated and conducted by the project:

- Training of 15 Zambia Metrological Department (ZMD) staff on generation, analysis and modelling of climate information.
- Attendance of ZMD meteorologist to the SADC Climate Expert meeting for the 2021/2022 season and the Southern Africa Regional Climate Outlook Forum -25-PM confirm if this was done
- Training of implementing entity staff in validation of the generated climate information and forecast for the 2021/2022 Season as well as the downscaling and localization of impacts generated, which was later translated into local languages.

- Built capacity of 85 extensions officers in all the 16 project districts on interpretation of Agro meteorological data.
- Training of 317 staff in the Ministry of Agriculture in the implementation of the Environmental and social safeguards across the 16 project districts

Engagement with NDAs, civil society organisations and other relevant stakeholders

The project has continued to engage with different development players in the implementation of its activities. For the year under review, the project took part in the Environmental Protection Dialogue whose discussions were held under the auspices of the 2007 National Policy on Environment supported by the Environmental Management Act No. 12 of 2011; the 7NDP, Sustainable Development Goals No. 7, 13, 15 & 17; and the United Nations Decade on Ecosystem Restoration 2030 Agenda.

Further the project engaged the District Forestry Department in its quest to support beekeeping as alternative livelihood in all the 16 districts. The department of Livestock and fisheries has continued to be engaged to provide technical support to the project especially as regards the goat rearing alternative livelihoods.

2.2.6 Efficiency and Effectiveness (max one (1) page).

In 2021, at the height of COVID-19 pandemic, larger meetings were discouraged. FAO partnered with the Zambia Agricultural Research Institute (ZARI), through the Mt Makuru, Mochipapa and Msekera Research station in Lusaka Province to undertake a diagnostic exercise for the roll out of the Farmer Field Schools (FFS) in over 8 additional project districts. This led to the establishment of 180 farmer field schools. And to leverage on comparative advantages, the MoA requested UNDP to undertake some procurements which included identifying vendors for the construction of 10 irrigation schemes, 20 fishponds and, supply of processing equipment for the honey value chain.

The ZMD collaborated with MoA's agriculture Extension Officers to disseminate weather advisories to 131,878 beneficiaries at the local level through community radios, social media platforms and physical meetings.

There was community participation during the construction of 3 bulking centres and the 2 irrigation schemes and 23 locals were employed during the construction.

The government enhanced project delivery through co financing of USD \$61,718,717 for farmer input support programme (FISP) on 100,133 farmers (48% women, 52% men), seed inputs were procured and distributed to farmers under this programme, additionally, an insurance weather index was provided to mitigate climate risks for all farmers under FISP.

Furthermore, the MoA engaged the Provincial Ministry of Infrastructure Housing and Urban Development to supervise the construction projects, this partnership resulted in cost effectiveness because the supervising Engineers were based within the locations where construction works were taking place, thus reducing logistics and other supervision costs.

2.3 PROJECT OUTPUTS IMPLEMENTATION STATUS ⁷			
Project Output	Project Activity	Status ⁸	Implementation progress ⁹ (%)
<i>Output 1: Smallholder farmers are able to plan for and manage climate risk to</i>	Project Activity 1.1: Strengthen generation and interpretation of climate information and data collection to ensure timely and detailed weather, climate, crop and hydrological forecasts are available to support smallholder farmers in planning and management of water resources used in resilient agricultural practices	Activity Started -progress delayed	30%

⁷ Outputs and Activities reported here should be aligned with the Activities in the Logic Framework and Implementation Timetable of the project.

⁸ Activity Not Yet Due; Activity Started -ahead of schedule; Activity started – progress on track; Activity started but progress delayed; Activity start is delayed.

⁹ Implementation progress on a cumulative basis as of the date of the report.

<p><i>support resilient agricultural production</i></p>	<p>Implementation of activity 1.1 was moderately good, despite Covid 19 and delayed procurements, most of the activities under ZMD were implemented. MoA and WARMA signed a letter of agreement however the implementation was challenging due to communication challenges.</p> <p>PROGRESS/MILESTONES ACHIEVED</p> <p>ZMD</p> <p><u>Infrastructure development</u></p> <p>The weather observation network for ZMD was boosted with the installation and commissioning of 20 AWS across 16 districts and 300 rainfall stations were procured that will be delivered in February of 2022, this procurement was delayed due to delayed process in preparation of TORS by ZMD. Nevertheless, using UNDP procurement comparative advantage, 80 more from the originally planned 220 rain gauges were procured within the planned budget, this would result in strengthened area specific weather monitoring due to the increase in the weather observation network especially for vast agricultural camps</p> <p><u>ZMD and Extension staff Capacity Development</u></p> <p>ZMD trained 71 out of the 220 camp/extension officers in capturing and interpreting weather data, the delay to complete the training is due to the COVID 19 pandemic. The training for the remaining officers is planned for the 1st Quarter of 2022. The project conducted trainings for 30 technicians (33% women, 67% men) from ZMD in operation and maintenance of the Automatic Weather Stations. ZMD through a consultant also conducted a specialised short course for 12 (50% women, 50% men) out of the 15 targeted staff, in the production of climate, Hydromet and Agromet information using tools under the MOSAICC platform.</p> <p>ISSUES AND DELAYS</p> <p>ZMD</p> <p><u>Engage with Mulungushi University, University of Zambia and Copperbelt University to revise curriculum and strengthen university programmes targeting climatologists, to enhance overall capacity in Zambia for climate and weather information generation and analysis.</u></p> <ul style="list-style-type: none"> this activity was not implemented in 2021 and was delayed because the lead curriculum coordinator at the university of Zambia succumbed to Covid 19 as result, this activity would be completed in 2022 <p>WARMA</p> <p>The following activities were not implemented which include the following</p> <ul style="list-style-type: none"> WARMA - Construction of 10 groundwater monitoring boreholes and 5 surface water monitoring stations. Installation of water tracking equipment. 	<ul style="list-style-type: none"> WARMA - Strengthen climate information and data collection, including enhancing the observation network WARMA - Strengthen capacity of staff in the ZMD, MoA and WARMA on implementation and maintenance of climate and water monitoring equipment and infrastructure. ZMD - Engage with Mulungushi University, University of Zambia and Copperbelt University to revise curriculum and strengthen university programmes targeting climatologists, to enhance overall capacity in Zambia for climate and weather information generation and analysis. ZMD – Training of 203 agricultural extension officer in capturing and interpreting weather data WARMA - Strengthen capacity of Ministry of Water Development, Sanitation and Environmental Protection through WARMA to develop water user associations related to surface and groundwater management WARMA - Support the ZMD and Department of Agriculture to develop tailored crop weather advisories drawing on weather and seasonal forecasts, crop modelling, fertilizer application and irrigation scheduling for target districts. <p>ZMD - Development of a standard operating procedure for coordination among relevant agencies generating, interpreting and disseminating the climate information through an established and mandated interagency coordinating platform."</p>
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	<ul style="list-style-type: none"> • WARMA – 20 staff trained (15 men and 5 women) in the use of water tracking equipment. • WARMA – Phase 1 of the construction of a Regional State of the Art Water Quality Laboratory complete <p>The delays¹⁰ are attributed to the late signing of the letter of agreement between the MoA and WARMA, in the 2nd Quarter of 2021. The agreement outlines the specific roles that are expected from WARMA during implementation. However, difficulties were still encountered due to delays in opening a dedicated project account that would facilitate disbursement and some Communication barriers between the two institutions. UNDP engaged both MoA and WARMA and issues were consequently resolved towards the end of the year. Implementation of the pending activities is expected to commence in January 2022.</p>	<ul style="list-style-type: none"> • WARMA - Construction of 10 groundwater monitoring boreholes and 5 surface water monitoring stations. Installation of water tracking equipment. • WARMA – 20 staff trained (15 men and 5 women) in the use of water tracking equipment. • WARMA – Phase 1 of the construction of a Regional State of the Art Water Quality Laboratory complete
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¹⁰ 2021
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Zambia
FP072 -
5858:
Section
2.6:
implement
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lessons
learned

	Project Activity 1.2 Strengthen dissemination and use of tailored weather/climate-based agricultural advisories to ensure smallholder farmers receive the information they need for planning and decision-making	Activity Started -progress delayed	35%
	<p>The implementation of activity 1.2 by ZMD was good taking into consideration the challenges¹¹ and restrictions that COVID 19 presented in the period under review. Though no tangible progress can be reported for WARMA¹², The LoA was signed that would now resolve issues around roles and responsibilities, further UNDP engagement of the partners MoA and WARMA, has helped resolve the issues around communication. Therefore, WARMA has for 2022 implementation submitted an implementation plan that would help bring progress on track.</p> <p>PROGRESS/MILESTONES ACHIEVED</p> <p>ZMD</p> <p><u>Weather data generation, interpretation</u></p> <p>The Southern African Development Community (SADC) climate forum SARCOFF, conducted a successful virtual meeting with the Climate experts drawn from the whole Southern Africa from the 16th to 31st of August 2021. The purpose of the meeting was to generate the 2021/22 regional rainy season forecast¹³ for Southern Africa. After generation of the regional (SADC) rainy season forecast, each SADC member state downscales the regional forecast to a country forecast. Downscaling increases the resolution of the forecast, create accompanying agricultural advisories, and makes it easier to incorporate into the local sector and community plans for decision-making. A total of 24 staff took part in the main climate expert meeting, of which 10 were from the provinces, 3 from MoA, 1 from WARMA and 10 from ZMD HQ (5 women, 21% and 19 men, 79%).</p> <p>Subsequently, the USER FORUM MEETING was conducted that had a total of 49 (18% women, 82% men) participants representing local climate sensitive sectors, the meeting’s outcome included anticipated impact and mitigation measures from the generated SADC forecast. The project translated the forecast into 7 local languages and the Minister of Green Economy and Environment officially launched the 2021/2022, Rainy Season Forecast through a ministerial statement in Parliament¹⁴.</p> <p>Weather dissemination</p>	<ul style="list-style-type: none">• ZMD - Support 3 meteorologists to attend SADC Climate Expert Forum meeting to generate 2022/2023 season rainfall forecast. Support 2 meteorologists, 2 Agriculturalists, 2 Hydrologists and WMO PR for Zambia to attend Users Platform Forum at SARCOF-26• ZMD - Downscaling of the SADC generated 2022/2023 season rainfall forecast; Generate sector specific impacts and propose mitigation measures; translate 2022/2023 season rainfall forecast into 7 local languages and launch the forecast• ZMD - Strengthening the capacity for dissemination of the 2022/2023 season rainfall forecast and the advisories in 16 districts on Community Radio Stations and digital platforms Virtual workshops for 5 provinces, 16 Districts and 220 CEO held to disseminate the season forecast and develop localised agriculture, water and disaster advisories from the implications of the season forecast• ZMD - Strengthening the capacity for dissemination of weather and climate information through operationalising the ZMD website.• ZMD - Dissemination of season updates	

¹¹ 2021 APR Zambia FP072 -5858: Section 2.6: implementation and lessons learned

¹² 2021 APR Zambia FP072 – 5858: Section 2.3: Project outputs implementation status, activity 1.1

¹³ <https://www.sadc.int/news-events/news/sarcof-forecasts-normal-above-normal-rainfall-20212022-season-much-sadc-region/>

¹⁴ Ministerial statement in parliament: https://www.parliament.gov.zm/sites/default/files/images/publication_docs/Ministerial%20Statement%20-%20Green%20Economy%20Environment.pdf

	<p>After the 2021/2022 weather forecast was generated, since they were restrictions on large gatherings due to Covid 19, a number of communication channels were utilised to disseminate the forecast in order to increase the number of farmers with access to weather information to inform strengthen their decision making related to climate risk and management. Several channels were used including dissemination through Short Messaging System (SMS); SMS system used by MoA during distribution of FISP inputs; SMS alerts on weather information were disseminated to 100,133 (49% women, 51% men).</p> <p><u>Dissemination through Community Radio</u> This proved to be the most effective tool in the fight against climate change through weather dissemination, ZMD weather forecasts updates were broadcasted on all 18 community radios in the 16 project district areas, officials from ZMD and MoA participated in interactive radio programmes with the community where farmers could ask questions related to the weather updates, this resulted in 111,600 farmers (30% women) accessing weather information.</p> <p><u>Dissemination through Extension services and workshops</u> Due to restrictions on gatherings due to Covid, few workshops were held and as an alternative, the districts staff created social media WhatsApp accounts where information from ZMD on weather updates was shared to the 220 (18% female) extension staff and the 220 camp agriculture committees (committee of 10 farmers), these two groups dissemination the information to 11,500 farmers, bringing the total to 13,700 farmers (40% women).</p> <p><u>Dissemination through social media</u> ZMD through its facebook page¹⁵ disseminated weather bulletin, however this channel wasn't effective because the farmers need smartphones to access the information, nevertheless, 9700 farmers had access to the weather information.</p> <p>Therefore, a total 234,633 farmers out of a target of 250,000 accessed weather information, the failure to meet target is attributed to Covid 19 restrictions on gatherings and workshops.</p> <p><u>Weather studio for improved weather information packaging</u> ZMD refurbished its weather studio resulting in improved packaging and dissemination through radio, television, social media platforms¹⁶ and physical meetings. The weather and agricultural advisories were disseminated and updated weekly, using the electronic gadgets i.e. tablets procured for the camp extension officers by the project, WhatsApp groups were also utilised to disseminate weather information by ZMD to both the officer and farmers, thus increasing outreach even during the COVID 19 difficulties. Facebook was maximised this year because the</p>	<p>(Crop Weather Bulletins) during the rainfall season by CEO</p> <ul style="list-style-type: none"> • ZMD - Support establishment of National Framework for Climate Services (NFCS) that will allow private sector (Mobile Service Companies, SMEs, Agribusinesses and Seed Companies and Developers) participation in provision of weather and climate services. • ZMD - Procurement of SMS Perpetual License and Bundles for the developed SMS Platform • ZMD - Engage Civil Aviation Authority (CAA) and Zambia Airports Cooperation (ZAC) to develop cost recovery mechanisms to support sustainable operation and maintenance of meteorological observation infrastructure across the country including in the SCRALA 16 project districts. • ZMD - Engage Insurance companies to explore and co-develop climate information products and services • WARMA - Capacity building for 15 WARMA (12 male, 3 female) staff in localization of the Global Flood Awareness Platform (GLOFAS) and Drought Forecasting in the 16 Districts of the Project area • ZMD - Dissemination Training of Agriculture, Water and Health Sectors to use the Enhancing National Climate Services (ENACTS) platform to generate area specific information by users in all the 16 project districts to 220 extension staff (18% women) • WARMA - Training of PDCC, DDCC and
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¹⁵ <https://www.facebook.com/pg/zambiameteorologicaldepartment/posts/>

¹⁶ <https://www.facebook.com/pg/zambiameteorologicaldepartment/posts/>

	<p>SMS platform for issuing alerts wasn't operational due to challenges with the renewal of license fee. The total number of farmers that accessed weather information was 234,633</p> <p>ISSUES AND DELAYS</p> <p>WARMA WARMA participated in the climate sensitive sector user forum to generate tailor sector-based water advisories. However, the planned activities were not implemented by WARMA due to issues around roles and communication. Those issues have since been resolved after the engagement with UNDP, its anticipated that implementation of project activities by WARMA would start in 2022. Consequently, an implementation plan has been submitted by WARMA to accelerate activity implementation.</p>	<p>ward-level policy makers on water management.</p> <ul style="list-style-type: none"> climate needs assessment consultant- the purpose of the assignment would be conducting an Agro-meteorological and water information needs assessment for smallholder farmers in the sixteen (16) districts in Zambia. The assessment will firstly identify the gaps in the current meteorological, water and agriculture products and services to smallholder farmers. It will include a comprehensive identification of products, services and tools that need to be improved and those to develop for smallholder farmers by the producers of Agro-climate products and services. Standard operation procedures – The purpose
<p>Output 2 2. Resilient agricultural livelihoods are promoted in the face of changing rainfall, increasing drought and occasional floods</p>	<p>Project Activity 2.1 Promote irrigation schemes, water storage, and capture as well as other resilient water management strategies to increase access to water for agricultural production in the target districts within Agro-Ecological Regions I and II</p>	<p>Activity Started -progress delayed</p> <p>35%</p>
	<p>PROGRESS/MILESTONES ACHIEVED Despite COVID 19 which affected logistics during implementation, 2 out of 3 bulking centres have been completed awaiting final inspections and subsequent handover to the beneficiaries, the third bulking centre is at 65% completion stage and is expected to be commissioned by the 1st quarter of 2022.</p> <p>On the irrigation schemes, both schemes are above 60% completion and are expected to be commissioned within the 1st quarter of 2022.</p> <p><u>Borehole development and construction</u> 138 out of 158 boreholes have been constructed and developed, the borehole yields are an average of 2ltrs/second, enough to support 13,800 (45% women, 55% men) households engaging in crop production and livestock production. To ensure compliance to applicable environmental and water resources regulations, permits for development of both boreholes and irrigation schemes were first secured from WARMA and Zambia Environmental Management Agency (ZEMA) respectively, (see attachment A10).</p> <p>The procurement process to identify a trainer for the 120 (44% women, 56% men) beneficiaries in irrigation operations and maintenance O&M, land and crop husbandry and market linkages is underway and is expected to</p>	<ul style="list-style-type: none"> MoA - Research on resilience assessment of water user groups and cooperatives in building climate resilience of agricultural livelihoods, develop pass-on mechanism and tracking, Support knowledge management in farmer field schools and learning centres MoA - Provide management and technical coordination of project implementation of irrigation, sustainable agriculture, and alternative livelihoods MoA - Support adoption of sustainable agricultural practices by small-scale farmers

	<p>be concluded in February 2022.</p> <p><u>Water User Associations</u> Though legislation is yet to be enacted by Parliament, 17 informal Water User Groups were formed in 2021 with 40% women representation the remaining 13 would be formed in 2022.</p> <p>ISSUES AND DELAYS</p> <p><u>Irrigation schemes:</u> COVID 19 and delays in payment remittance to contractors contributed to the delay in completion within schedule. The delayed payments by MoA¹⁷ to the contractors was because of the change of government. The new administration needed to review all payment requests before disbursement to ensure that all payments were legitimate. The procurement process which begun in the 4th quarter of 2021 for the 6 bulking centres, 10 solar powered irrigation schemes (due to delayed construction of boreholes, information on borehole yields for 15 proposed irrigation schemes was missing as a result only 10 irrigation were subjected to procurement process, since the source of water is borehole, the TORs were comprehensive and included 10 water ponds for livestock), 20 fishponds, 6 weirs and canals is expected to be concluded by February 2022. The delay in procurement is attributed to COVID 19, due to a ban in gatherings, as such the meetings for the evaluation committees under MoA could not convene. Given that the government has not yet adopted e-tendering for virtual evaluations, the procurements were delayed until UNDP was requested to take up some of the procurements to enhance delivery. The strategy to accelerate implementation in 2022 in the face of Covid would be to use comparative advantages of UNDP, WFP and MoA, this would entail using more of existing Letters of Agreement which UNDP or WFP could have with credible suppliers, this would result in timely procurement to enhance delivery. Furthermore, on meetings, to avoid delays due to restrictions in gatherings, e-extension would be adopted, this would result in more virtual meetings and using other channels of communication i.e. radio.</p> <p><u>Borehole development and construction:</u> The remaining 20 boreholes could not be completed as planned due to covid-19 related delays and the impassable roads during the rainy season that made sites inaccessible but are expected to be completed by the 2nd quarter of 2022.</p>	<ul style="list-style-type: none"> MoA - Construction of solar powered drip irrigation schemes to increase access to irrigation water by small-scale farmers (TARGET) : Construction of 15 solar powered low-pressure drip irrigation schemes in 6 districts) MoA - Construction of 30 fishponds for small-scale farmers in Chama, Nyimba and MoA - Construction of aggregation centres in 6 districts MoA - Training of farmers and ESS Committees on site specific environmental management plan for the Scheme Targett: 2,055; Males 1233; female 822 MoA - Regular project monitoring, backstopping and bi-annual project review and one yearly planning session Water User association- form 13 water user association <p>MoA - Capacity development for the small-scale farmers in management of the irrigation schemes i.e., business plans operation and maintenance schedules produced in Sioma, Chirundu, Gwembe, Luangwa, Chongwe, Namwala districts (348 farmers 54% F, 46% M) Mambwe</p>	
	<p>Project Activity 2.2 Increased access to agricultural inputs (e.g., seeds, soil kits, tools) for resilient crops</p>	<p>Activity Started -progress delayed</p>	<p>35%</p>

¹⁷ 2021 APR Zambia FP072 -5858: Section 2.6: implementation and lessons learned

	<p>The performance of the project on activity 2.2 for the year under review, was very good despite the of COVID 19 restrictions on gatherings.</p> <p>PROGRESS/MILESTONES ACHIEVED</p> <p>Capacity development. With the major hindrance to productivity being lack of quality seed, the project trained extension officers and farmers in seed multiplication, this is to enhance the availability of seed at the local level, as tabulated below:</p> <ul style="list-style-type: none"> • Number of officers trained in seed inspections 25 (80% males and 20% females) out of the target of 32 • Number of farmers trained in seed multiplication 251 (53% males and 47% females) out of a target of 786. • Due to covid 19 restrictions, training of 118 Agricultural officers was delayed and would be conducted in Q1 of 2022. <p><u>Drought and pest tolerant seeds</u> The project procured and distributed quality seed for demonstration distributed to 13,700 (40%,60%) lead farmers practicing conservation agriculture covering a total of 6ha out of the planned 20ha. This included sunflower, cowpeas, groundnuts, pigeon peas and sorghum seed.</p> <p><u>Implements</u> 2300 rippers and knapsack sprayer were procured in 2021 to be delivered to 2300 farmers (40% female) in Q1 2022, this adds to the implements that were procured in 2020 and distributed in Q1 of 2021, the 1,500 rippers and knapsack sprayers were distributed to 1,500 farmers (40% women, 60%men) to enhance the practice of climate smart agriculture.</p> <p><u>Community based seed multiplication</u> The Seed Control and Certification Institute (SCCI) partnered with the project in training 210 (60% women, 40%men) farmers to undertake community-based seed multiplication of cowpeas, orange fleshed sweet potatoes and groundnuts varieties. Undertaking seed multiplication will enable the project to avail enough seed of self-pollinated crops and sweet potatoes to the farmers as there are currently shortages of requisite commercial seed for the target communities. The seed growers were supported with the initial basic seed from Msekera Research Station (ZARI). A total of 14,350kg of cowpeas was produced which was sold to FAO at K25/kg by the farmers realizing an income of K358,750 (\$21,102.94)</p> <p><u>Farmer Input Supply Programme (FISP)</u> The MoA abolished the E-voucher system and used the direct input supply for all beneficiaries. This resulted in an increased number of inputs from 3 to 6 bags of fertiliser received per beneficiary in previous e-voucher areas of</p>	<ul style="list-style-type: none"> • MoA - Provide farmers with access to initial inputs of drought and pest-tolerant seeds to enhance diversification and strengthen resilience. (Target 13,700 farmers, 40%F, 60% M) • 118 Senior Agricultural Officer and Crops Officers (64 men, 54% and 54 women, 46%) trained in seed production • 535 seed growers (gender breakup unavailable) trained in seed production in selected camps and seed growers associations formed • MoA - Strengthen or establish cooperatives in each of the 16 districts to manage production and distribution of improved seed varieties through training of 32 officers as seed inspectors and 16 cooperatives in seed multiplication. • Procurement of seed inputs for 14ha under the irrigation scheme. • Procure of 80 soil testing kits • MoA - Share information with farmers on the value of improved seed varieties suitable for their local areas through attendance in seed fairs and exchange visits to lead farmers demos (95,900 farmers, 40% F, 60%M)
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	<p>southern and western provinces this brought parity to all beneficiaries under the programme. The total number of beneficiaries were 100,133 (49% women,51%men) beneficiaries being supplied with seed and fertiliser packs.</p> <p><u>ISSUES AND DELAYS</u></p> <p><u>Drought and pest tolerant seeds:</u> Due to the delayed completion of the irrigation scheme, only 6ha of inputs were procured, the remaining 14ha inputs for the scheme would be completed by Q2 of 2022.</p> <p><u>Procurement of 80 soil testing kits</u> Procurement process for the soil testing kits was initiated however not complete, this is expected to be concluded by Q1 of 2022.</p> <p><u>Seed certification:</u> And due to COVID 19 restrictions on gatherings, the certification of 786 seed growers could not take place. This is expected to be conducted in the 2nd quarter of 2022. Despite the COVID 19 restrictions, 2 Seed Growers Associations were formed with 40% women representation.</p> <p><u>Training in seed production</u> The training for 118 Senior Agricultural Officer and Crops Officers (64 men, 54% and 54 women, 46%) in seed production was delayed due to Covid restrictions on gatherings, hence will be implemented in Q1 2022.</p> <p><u>Procurement</u> The Procurement of seed inputs for 14ha under the irrigation scheme was delayed due to extended implementation schedules, the extension was caused by delayed payments to contractors.</p>		
	<p>Project Activity 2.3 Introduction of new resilient agricultural production practices to strengthen production and diversify crops amidst climate variability and change</p> <p>PROGRESS/MILESTONES ACHIEVED Key successes scored under this activity include:</p> <p><u>Demonstration plots</u> 7081 demo plots were set up by lead and follower farmers across the 16 districts, the crops planted included sorghum, ground nuts, cowpeas, sunflower, and pigeon peas. These demo plots provide an opportunity for leaning and adaption of climate change management options. The extension staff supported the farmers through continuous monitoring.</p>	<p>Activity Started - progress delayed</p>	<p>40%</p> <ul style="list-style-type: none"> • MoA - Strengthen farmer/user groups on crop diversification of members considered as champions at each camp to facilitate and oversee the adoption of drought-tolerant and alternative crops by the wider communities (e.g., cassava, cowpeas, soybeans, pulses and horticulture) • Follow up CA practice through extension (Field days, Seed fairs, Exchange visits, Agritech Expo, documentaries and radio programmes with

	<p><u>Identification of new lead farmers and field days</u></p> <ul style="list-style-type: none">4,235 (48% women, 52%men) new beneficiary farmers in 2021 were identified and trained as lead farmers in conservation agriculture who then each trained 18 follower farmers under them in conservation farming to in have a total trained in 2021 at 76,230 (44% female, 54%) and cumulatively 154,296 (45% female, 55% male) farmers trained in CA. Zero tillage, crop residual management techniques are some of the trainings that were involved.Despite the restrictions on gatherings to attend field shows, only 8,535 out of 44,000 (30% women, 70% men) farmers participated in field days where the benefits of CA and quality seed as an anchor to productivity was showcased. <p>ISSUES AND DELAYS</p> <p><u>Field shows</u></p> <ul style="list-style-type: none">Field shows for the remaining 35,465 farmers that were delay owing to restrictions will be implemented in 2022.	36,000 farmers supported to attend field days (40% women and 60% men).																																							
	<p>Project Activity 2.4 Introduce alternative livelihoods to strengthen resilience in target communities</p>	<p>Activity Started - progress on track</p>	<p>45%</p>																																						
	<p>PROGRESS/MILESTONES ACHIEVED</p> <p><u>Beekeeping:</u> Beehives and associated equipment were procured and distributed to 1,528 (44%women)) farmers who were also trained in Bee Keeping and application of ESS guidelines to prevent suppliers from using endangered indige- nous trees as beehive construction materials.</p> <p>Income generated from beekeeping in 2021</p> <table><tr><th rowspan="2">District</th><th colspan="3">Beneficiary</th><th rowspan="2">Qty Har-vested (Kg)</th><th rowspan="2">Qty Sold (Kg)</th><th rowspan="2">Sales (ZMW)</th></tr><tr><th>M</th><th>F</th><th>T</th></tr><tr><td>Mulobezi</td><td>7</td><td>0</td><td>7</td><td>483</td><td>483</td><td>6,800.00</td></tr><tr><td>Rufunsa</td><td>54</td><td>37</td><td>91</td><td>2120.79</td><td>2120.79</td><td>29,691.00</td></tr><tr><td>Sesheke</td><td>11</td><td>7</td><td>18</td><td>320</td><td>215</td><td>12,350.00</td></tr><tr><td>Total</td><td>72</td><td>44</td><td>116</td><td>2923.79</td><td>2818.79</td><td>48,841.00</td></tr></table>	District	Beneficiary			Qty Har-vested (Kg)	Qty Sold (Kg)	Sales (ZMW)	M	F	T	Mulobezi	7	0	7	483	483	6,800.00	Rufunsa	54	37	91	2120.79	2120.79	29,691.00	Sesheke	11	7	18	320	215	12,350.00	Total	72	44	116	2923.79	2818.79	48,841.00	<ul style="list-style-type: none">MoA - Provide inputs to farmers to introduce and strengthen alternative livelihoods (e.g., beehives and beekeeping equipment, goats, fish) target: 290 farmers (40% F, 60M) in beekeeping, 900 farmers (55% F, 45%M) in fish farmingCarry out training of farmers (20 men and 60 women) in improved fish farming and support with starter inputs300 smallholder farmers (gender breakup TBD) supported with inputs for rising chickens in 4 districts.MoA - Strengthen or establish 12 cooperatives to manage fish breeding ponds, goat rearing and beekeeping activities through training and value chain linkage for sustainability.	
District	Beneficiary			Qty Har-vested (Kg)	Qty Sold (Kg)				Sales (ZMW)																																
	M	F	T																																						
Mulobezi	7	0	7	483	483	6,800.00																																			
Rufunsa	54	37	91	2120.79	2120.79	29,691.00																																			
Sesheke	11	7	18	320	215	12,350.00																																			
Total	72	44	116	2923.79	2818.79	48,841.00																																			

	<p><u>Goat Pass on mechanism</u></p> <p>Before goats are distributed to beneficiaries, a contract is signed which stipulates that the beneficiary is mandated to pass on 5 goats to the next beneficiary when the parent goats have kidded. From this pass on mechanism, 746 (54% women) farmers benefited and have adopted Goat Rearing as an alternative livelihood activity.</p> <p><u>Fish farming</u></p> <p>60 farmers from a target of 80 (30 men and 30 women) were trained in fish farming as an alternative livelihood, in readiness for the fishponds that are expected to be completed in 2022. The training for the remaining 20 will be conducted in 2022.</p> <p>Therefore, the total cumulative number of farmers adopting alternative livelihood of beekeeping and goat rearing is 8,112 (44% women)</p> <p>ISSUES AND DELAYS</p> <p><u>Goat Pass on mechanism</u></p> <p>During the period of 2021, there was low pass on numbers and in some cases halted due to mortality as some goats died from diseases. However, the project mitigated disease pressure through training beneficiaries in disease diagnosis techniques and nutrition to enhance disease monitoring and improved pasture for goats, therefore pass on to new beneficiaries is expected in Q1 of 2022.</p>	<ul style="list-style-type: none"> MoA - Procurement of consultancy services to train 900 (40% female) beneficiaries in business management and identify markets for small scale farmers practicing beekeeping farming in nine districts, deliverable (business plans and markets secured) MoA - Strengthen capacity of 5619 (40% female) farmer beneficiaries across all 16 target districts to adopt and maintain alternative livelihoods through training in goat disease management, apiary management, fish farming MoA - Participatory rapid gender study: to identify needs, challenges, interests' perceptions on implemented activities & Trainings on prevention of sexual exploitation and abuse and gender grievance redress mechanisms in climate change. 	
	<p>Project Activity 2.5 Establish farmer field schools and learning centres of excellence to further document and scale up successful practices</p>	<p>Activity Started - progress delayed</p>	<p>30%</p>
	<p>PROGRESS/MILESTONES ACHIEVED</p> <p>MoA through Zambia Agriculture Research Institute, Msekera Research Station partnered with Ministry of Fisheries and Livestock and established 20 practical Farmer Field Schools (FFS) in 20 communities across the pilot 14 agricultural camps in Nyimba and Mambwe districts. The FFSs have been implementing demonstrations in various key adaptation areas. Across the 16 districts, 180 FFs were established with a membership of 6300 farmers (40% women)</p> <p><u>Procurement and distribution of inputs</u></p> <p>In order to enhance learning, adaption of climate management options, inputs were distributed to 6,300</p>	<ul style="list-style-type: none"> FAO - First farmer field school meetings (80FFS) detailed sensitization on adaptation options and operationalization based on the developed area specific protocols FAO - Monitoring and quality assurance of FFS implementation across the 16 districts FAO - Participate in selected district-organized Farmer Field Schools field day events for 	

	<p>farmers across the 16 districts for planting in the demonstration plots, among the inputs included crop varieties of maize, sweat potatoes, groundnuts and cowpeas.</p> <p><u>Farmer consultation/sensitization meetings on norms and options for FFS</u> Mobilization meetings to sensitize the farmers, traditional leaders and councillors on the planned demonstrations were held. Lead farmers were identified for each FFS sites, in readiness for setting up of the 2021/2022 FFS demonstrations.</p> <p><u>Training of trainers (MoA staff) to facilitate experiential learning by communities on adaptive practices</u> To ensure proper layout of the FFS mother demonstrations, their management and output-oriented facilitation of the farmer field schools by the camp extension officers (especially those from new/up-scaling camps). FAO facilitated pre-season training in agronomy that was conducted by Msekera/Mochipapa Research Station (ZARI) and Ministry of Fisheries and Livestock. 140 (18% women, 82% men) MoA staff attended the trainings conducted in Siavonga, Namwala, Livingstone, Sesheke, and Senanga districts.</p> <p><u>Farming Systems Appraisal and baseline for the phase II districts</u> A baseline and diagnostic assessment of the farming systems related risks, vulnerabilities and knowledge gaps was undertaken in 8 SCRALA districts in Southern and Western though this was delayed due to Covid restrictions on travel and gatherings. However, the baseline survey was conducted in - Siavonga, Gwembe, Namwala, Kazungula, Sesheke, Mulobezi, Sioma and Senanga districts. The diagnosis included a detailed assessment of the institutional setting for adaptive planning and implementation of good agricultural practices.</p> <p>ISSUES AND DELAYS</p> <p><u>Farming Systems Appraisal and baseline for the phase II districts:</u> The Zambia Agricultural Research Institute, through the Msekera/Mochipapa Research Station in Eastern/Southern Province partnered with FAO in undertaking this diagnostic exercise. The delay in concluding the diagnostic survey due to Covid restriction affected the timely establishment of centres of excellence in Luangwa, Gwembe, Sesheke and Chama, these centres would be established in Q1 of 2022</p>	<p>established adaptation demonstrations (160FFS sites)</p> <ul style="list-style-type: none"> • Construct and establish 4 Centres of Excellence in 4 selected Districts (Luangwa, Chama, Sesheke, Gwembe) and procure and deliver inputs for the same. • Procure and distribute of inputs for crop demonstrations in all 16 districts. • FAO - Farmer engagement meetings to share lessons learned in implementation of FFS demonstrations during 2021-2022 season (5100 farmers) • FAO - Planning meetings for Agro-inputs and materials procurement for establishing the 2021-2022 season demonstrations • FAO - Develop adaptation demonstrations guidelines for FFS, print FFS site posters and distribute to sites (170 sites) • FAO - Procurement of Agro-inputs and materials for FFS's in all 16 districts • FAO - Establishment of adaptation demonstrations and facilitation of FFS in 110 camps (8 districts) during 2022-2023 season • FAO - Train 370 extension staff (30% F, 70% M) (SAO, BEO, CEO) in aspects of data collection, practical facilitation of FFS, data analysis, interpretation of results, tracking progress and reporting in • FAO - Procurement inputs for demonstrations for 4 Centres of Excellence in 4 districts (Luangwa, Chama, Mambwe, Nyimba) 	
	<p>Project Activity 3.1 Strengthen processing of resilient products</p> <p>PROGRESS/MILESTONES ACHIEVED</p> <p><u>Agro processing:</u></p>	<p>Activity Started - progress delayed</p>	<p>5%</p> <ul style="list-style-type: none"> • MoA - Procure and install Agro processing equipment such as oil expellers, shellers, hammermill, food solar dryers, meat

<p>3. Increasing farmers' access to markets and commercialization of resilient agricultural products</p>	<p>Though activities have been noted under this output, progress is yet to be recorded. The MoA identified and trained farmer groups/ cooperatives as processors in 2 out of 13 targeted districts, Kazungula and Nyimba districts and processing activities are already taking place e.g., KMC and Mbuzi Kavuma Cooperatives. Assessments of availability of resilient products in the districts were done to understand viable value chains (i.e., those that have high market demand, economic value and potential for scaling up) in these districts:</p> <ul style="list-style-type: none"> ○ Kazungula, potential commodities for processing: Milk, sunflower, maize, sweet potatoes, sorghum and meat are already being processed by some groups. ○ Nyimba, potential crops for processing: Bananas, ground nuts, sunflower, mangoes, and maize are some of the key crops grown in Nyimba with a potential for processing and commercialization. Goat meat, sunflower, groundnuts and maize are already being processed by some individuals and organisations. <p>ISSUES AND DELAYS</p> <p>The delay in conducting a survey on processing of resilient products was because of covid measures that restricted movements of people.</p> <p>The training on postharvest processing for 5 women groups will be conducted in Q1 of 2022, the delay is a result in concluding the procurement process in engaging a trainer.</p> <p>The procurement of honey processing equipment process is at evaluation stage and is expected to be completed by January 2022, UNDP was requested to procure on behalf of MoA to enhance delivery. The equipment is expected to benefit 1,523 farmers (44% women, 56% men).</p>	<p>processors to benefit 290 farmers (60% women, 40% men) in nine districts at each of the 9 bulking centres.</p> <ul style="list-style-type: none"> • MoA - Conduct training in Agro processing to 300 (55% F, 45% M) farmers across nine districts • MoA - Conduct training in operation and maintenance to 300 (45% M, 55% F) farmers across nine districts • Completion of a detailed report profiling 11 of the project districts for the processing of resilient products and identify additional commodities for value addition. • Training on post-harvest processing for 5 women and 5 youth groups and cooperatives carried out. 	
	<p>Project Activity 3.2 Strengthen storage, aggregation and transportation of resilient products to enhance commercialization and linkages to market and SMEs</p>	<p>Activity Started - progress on track</p>	<p>40%</p>
	<p>PROGRESS/MILESTONES ACHIEVED</p> <p><u>WFP:</u> <u>Post-Harvest Management (PHM) and Storage</u> WFP continued to promote good post-harvest management in 2021. WFP developed 2,850 PHM training materials and distributed to 35 cooperatives and 75,887 (49% women, 51% men) farmers through MoA staff during the camp level trainings.</p> <p><u>Farmer Cooperatives</u> Farmers continued to be strengthened on group formation and leadership in the period under review. A total of</p>	<ul style="list-style-type: none"> • WFP - Promote the use of dial A Load System Virtual Farmer Market information platform • WFP - Engagement of financial service provider to offer transport credit product to farmers (includes running an asset financing model with identified MFI's) • WFP - Train farmers on Post harvest management and promote the use of hermetic storage among 64,000 smallholders to reduce post-harvest losses (e.g., airtight 	

	<p>1,600 training manuals were developed and distributed to farmer cooperatives in this regard.</p> <p><u>Marketing</u> Market linkages were at the apex of implementation in 2021. Two private companies (AgroZ and Polythene Products Zambia (PPZ) were engaged to develop marketing and sales strategies for farmers. WFP will be upscaling these strategies in 2022 through farmer trainings. Advocacy work around championing customer protection for smallholder farmers was also undertaken. Additionally, 1,000 farmers accessed Sorghum inputs and a ready market was provided by Zambia breweries: 60 metric tonnes of sorghum were aggregated and supplied to Zambia Breweries in Gwembe district under the WFP/Zambia Breweries out-grower scheme that seeks to diversify production of resilient crops through the market systems approach.</p> <p>WFP launched the Virtual Farmers Market (VFM) mobile-based marketplace – known locally as Maano – that links smallholder farmers to buyers offering competitive prices for their produce, thereby increasing farmers’ earnings and income opportunities. The VFM provides a transparent, open and trustworthy space for smallholder farmers and buyers to negotiate fair prices and deals. Further, 138 government staff and 491 farmers (211 women) were introduced and trained on the new virtual farmers market mobile based application. As at end of 2021, there are about 8,000 plus farmers and 800 aggregators who are trading on the Maano app. The launch of the app was delayed due to covid restrictions as it was officially launched in July 2021, thus were unable reach the 20,000 during the marketing as the marketing season had already started. To date trainings have since been held with camp extension officers on the on boarding of farmers onto the Maano virtual farmers market the plan is to run these activities in the first quarter of 2022 prior to the start of the marketing season.</p> <p>ISSUES AND DELAYS</p> <p><u>Transportation</u> The purchase of 32 Toyo cycles is planned for the 2022/2023 farming season. The Virtual farmers Market app will also incorporate the “Dial-a-load” module to help farmers transport their produce to the market. The agreement has already been signed with the Zambia Commercial Industrial Bank to facilitate and sustain the financing arrangements of Toyo cycles beyond the 32 dummy Toyo Cycles. This activity delayed because the design specifications for the toyo cycles took long to be concluded and agreed upon by the stakeholders.</p>	<p>bags, metal and plastic silos) (including PHM on livelihood activities)</p> <ul style="list-style-type: none"> WFP - Promote and support capacity of smallholder farmers’ organizations (110 aggregators) on the use of the warehouse WFP - Scaled up the use of virtual farmers’ (using VFM) market’ platform to at least 200 farmers in the supply-and-demand information and payment platform that focuses on climate-resilient products) 	
	<p>Project Activity 3.3 Increase access to finance and insurance products for smallholder farmers by strengthening financial education and facilitating engagement with potential financing sources including public, private, bilateral and multilateral sources</p> <p>PROGRESS/MILESTONES ACHIEVED</p>	<p>Activity Started - progress delayed</p> <ul style="list-style-type: none"> WFP - Formation and strengthening of 35 savings clubs via cooperative /farmer group model 	<p>35%</p>

	<p><u>35 Cooperative groups trained per district in the formation of savings clubs including group lending and saving and 320 savings groups linked to formal financial institutions.</u></p> <ul style="list-style-type: none"> In 2021, WFP supported 19,291 (67 percent women) smallholder farmers, and approximately 780 savings groups have since been formed. Additionally, WFP partnering with financial institution (banks, micro-finance institutions) supported 3,875 smallholder farmers to access input credit through savings groups and formal financial services, this translated to 155 groups with an additional 165 to be linked in 2022. <p><u>At least three aggregators linked to financial services providers.</u></p> <ul style="list-style-type: none"> 2,827 smallholder farmers forming part of the micro aggregator network have been linked to formal financing where they can access credit, through continued financial literacy trainings and linkage to formal financial Institutions such as Zambia National Commercial Bank and Vision Fund International. Trade financing remains a key precursor to diversified incomes for smallholder farmers and in view of this WFP continued brokering partnerships with financial institutions, the latest being Zambia Industrial Commercial Bank (ZICB) with an MoU signed and positioned to offer financing to the aggregation network for the next crop marketing season. The partnership with Zambia National Commercial Bank (ZANACO) resulted in the development of a collateral free product for amounts between USD900 to USD23,000 to be accessed by the selected aggregators <p><u>At least one innovative product developed per year to support the promotion of resilient crops and livestock specific indexes and 320 national experts (genders TBC) trained in the design, pricing, and monitoring of different kind of indexes and linked to the private sector.</u></p> <ul style="list-style-type: none"> WFP supported the Ministries of Livestock and Agriculture to train 2,073 Block/Camp extension officers from a target of 320 in training on weather, area yield and livestock index insurance across the country. The development of digital private sector led insurance enrolment system of Agro-dealers and aggregators and specific index such as soya beans and sorghum were implemented. This will enable smallholder farmers to be able to purchase insurance through ago-dealers in their district via digital platforms. A technical working group (Pula Advisors, IRI and ZEPRE through WFP) has been helping capacitate government staff on knowledge on index-based insurance product, the FISP index insurance product for 2021/2022 and private sector led insurance scheme such as the livestock index insurance and others. Full enrolment of the private sector will commence in 2022 Linkage of savings groups to financial institutions was undertaken to enhance smallholder farmers access to credit. A total of 245 out of a target of 320 savings groups were linked to formal financing. Three new financial partners (ZCIB, Natsave and MTN) were brought on board as well as Non-Financial partners (Good Nature Seed, VITALITE Zambia and Agrileaseco). The savings groups also provided a platform to address structured cross cutting issues such as Gender, Nutrition and HIV. 	<ul style="list-style-type: none"> 3 WFP - Link formed savings club to formal non-bank and rrent-to-own) WFP - Promotion of group lending and Saving -led external lending methodology. WFP - Link 20 Aggregators to financial services provider WFP - Support product development of crop (Groundnuts, cowpeas) and livestock indemnity indexes WFP - Support Building of in country experts via private sector and government department to design, pricing and monitoring of different kind of index insurance products renewable energy institutions such as vitality.
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	Project Activity 3.4: Identify available markets and promote climate-resilient products	Activity Started - progress delayed	35%
	<p>PROGRESS/MILESTONES ACHIEVED</p> <p><u>Private sector engagement in crop aggregation, market access linkages as part of the inception activities towards the marketing season.</u></p> <ul style="list-style-type: none"> During post marketing season, WFP facilitated trade transactions in crop commodities that included maize, soya beans, groundnuts, cowpeas, and oranges maize to a tune of 2,867 MT valued at ZMW 4,387,418 (USD 258,083). WFP worked with Canon Garth, Good Nature Agro and Griffins as private sector players engaged in the value chain market support. <p>Using the aggregation model, link 400,000 smallholder farmers (60% men and 40% women) to local markets.</p> <ul style="list-style-type: none"> 58,216 smallholder farmers (48.7% women) were linked to local markets <p><u>Aggregation</u></p> <p>As part of the operationalization of the Warehouse receipt system (WRS), 25 government extension staff and 46 aggregators (12 women) were trained. One intermediary aggregator was trained on rules and regulations as a prerequisite to certification to be a warehouse operators and commodity broker. In total, 291 aggregators were selected and equipped with knowledge on how to effectively buy commodities from producers through the commodity aggregation/bulking model.</p> <p>ISSUES AND DELAYS</p> <p>Linkage of smallholder farmers to local markets: Restrictions on gatherings due to Covid affected implementation of this activity. Consequently, the remaining 341,784 would be linked in 2022,</p>	<ul style="list-style-type: none"> WFP - Engage 3 Private sector based on assessment of value chain to be supported in each district (inclusive of purchase of aggregation equipment's) WFP - Conduct training to at least 240 schools to reach 60,000 learners on nutrition education and establishment of school gardens to sensitize school children WFP - Link 341,784 smallholder to markets using the aggregation model, including out grower schemes 	

2.4 PROGRESS UPDATE ON THE LOGIC FRAMEWORK INDICATORS ¹⁸					
2.4.1 PROGRESS UPDATE ON FUND-LEVEL IMPACT INDICATORS OF THE LOGIC FRAMEWORK					
<i>Fund-level impact indicators¹⁹ (Adaptation)</i>	<i>Baseline</i>	<i>Current value²⁰</i>	<i>Target (mid-term)</i>	<i>Target (final)</i>	<i>Remarks (including changes²¹, if any)</i>
A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions: Indicator 1.2: Number of males and females benefiting from the adoption of diversified, climate-resilient livelihood options	112,000	287,398 (50%women, 50% men)	400,000 (women 160,000, 40% and 240,000 men, 60%)	950,000 (women 380,000, 40% and 570,000 men, 60%)	The current value is the total number of small holder farmers who have directly benefitted from at least one project intervention or livelihood related project activity.
A2.0 Increased resilience of health and well-being, and food and water security: Indicator 2.2²² Number of food secure households (in areas / periods at risk of climate change).	0	0	60,000 (women 24,000, 40% and 36,000 men, 60%)	157,000 (62,800 women, 40% and 94,200 men 60%)	To be determined in the 2022 Mid-term evaluation.
2.4.2 PROGRESS UPDATE ON PROJECT/PROGRAMME LEVEL INDICATORS OF THE LOGIC FRAMEWORK ²³					
<i>Project/Programme indicators (Mitigation/Adaptation)</i>	<i>Baseline</i>	<i>Current value²⁴</i>	<i>Target (mid-term)</i>	<i>Target (final)</i>	<i>Remarks (including changes²⁵, if any)</i>
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks					
7.1 Extent to which target beneficiaries (vulnerable households, communities, businesses and public-sector services) adopt climate-resilient technologies (improved tools, instruments, strategies and activities to respond to climate variability and climate change).	14.52%	37% (100,656 households out of 273,166 total households, of which 90,198 (47%) are women and 100,358 (53%) are men)	40% beneficiaries (male and female) adopt climate-resilient technologies	At least 80% male and female beneficiaries adopt climate-resilient technologies	The baseline of 14.52% consisted of 39,750 households (out of 273,166 total households of which 90,198 (47%) are women and 100,358 (53%) are men). The current value 37% of has been reported on a cumulative basis. Adoption of climate resilient technologies includes adoption drought tolerant crop, crop rotation, inter cropping, cover cropping, Agro- forestry, composting, micro irrigation, zero tillage fodder production, local animal feeding.
1. Smallholder farmers are able to plan for and manage climate risk to support resilient agricultural production					
Percentage of smallholder farmers demonstrating knowledge to plan for and manage climate risk to support resilient agricultural	3.1% 8,468 households (out of	37% (100,133) smallholder farmers out of 273,166 farmer	45% female and male smallholder farmers able to plan &	90% female and male smallholder farmers able to plan &	Demonstrating knowledge on climate risk and management through purchase of insurance cover for their crops.

¹⁸ Per the approved methodology in and the Logic Framework in the Funding Proposal, please provide an update on the relevant indicators.

¹⁹ As per the relevant indicators established in the Funding Proposal and the Performance Measurement Framework, including relevant updates agreed with GCF, if applicable.

²⁰ As of 31 December of the relevant year.

²¹ Related to the approved indicators and targets in the Logic Framework.

²² After the signing of the FAA the project logical framework was slightly revised and indicator 2.4 shifted to output 2 below and replaced by the GCF indicator 2.2 as given here.

²³ As per the relevant indicators established in the Funding Proposal and the Performance Measurement Framework, including relevant updates agreed with GCF, if applicable.

²⁴ As of 31 December of the relevant calendar year.

²⁵ Related to the approved indicators and targets in the Logic Framework or relevant FAA.

production disaggregated by gender	273,166 ²⁶ total households)	households population able to plan and manage risk (approximately 47% of women and 53% of men)	manage risk (122,925 households out of 273,166 total households)	manage risk (245,849 households out of 273,166 total households)	
Percentage of population with access to improved climate information, weather and agricultural advisories (disaggregated by gender)	20.5%	25% (234,633 out of the total 946,153 target beneficiaries) with access to improved climate information (39% of women and 61% of men)	52% of female and male population	62% of female and male population	The current value is the total population reached with access to improved climate information, weather and agricultural advisories. These Agro-weather advisories were jointly developed and disseminated through, meetings, radio, television, social media and SMS.
Perception of targeted populations on the timeliness, content and reach of weather, agricultural and water advisories	32.5%	37% (86,814) of the total 234,633 farmers who received the seasonal weather and agricultural forecast considered it as timely and relevant	30% of both female and male populations	70% of both female and male populations	Perception of the timeliness, reach and relevance of the 2021/2022 weather and agricultural advisories was considered for farmers adopting CA practices
2. Resilient agricultural livelihoods are promoted in the face of changing rainfall, increasing drought and occasional floods					
Area (ha) of agriculture land made more resilient to climate change through changed agricultural practices (e.g., planning times new and resilient native varieties, efficient irrigation schemes adopted).	82,125 ha	120,393 ha	800 ha	2,700 ha	The current value is based on the 154,296 farmers practicing CA with a minimum of 0.25ha per plot.
Number of farmers adopting new agricultural practices and alternative livelihoods	33,898	87,166 (40,629 women, 49%, 46,537 men, 51%)	Female: 40,000 Male: 60,000	Female: 83,000 Male: 124,510	Adoption of climate resilient technologies focused on conservation agriculture and alternative livelihoods (specifically, goat rearing and Bee keeping)
Percentage increase in agricultural incomes in the project sites	0%	8% (78,066) of both male and female smallholder farmers show an increase of 9.2%	35% of both male and female smallholder farmers show an increase in agricultural incomes by at least 25%	70% of both male and female smallholder farmers show an increase in agricultural incomes by at least 60%	The current value is based on increase in income by the lead farmers engaged in maize production, cow peas, honey production and goat keeping

²⁶ The total number of households in the target districts

3. Increasing farmers' access to markets and commercialization of resilient agricultural products					
Percentage of resilient commodities produced by target farmers that are sold on the markets	26.88%	TBD in the Interim Evaluation	40% for both female and male	80% for both female and male	The current value of this figure will be determined in the 2022 Interim evaluation.
Percentage of households accessing financial education programmes related to credit and insurance schemes	14.2%	23.2% (24,857 of 273,166 farmer population)	20%	50%	

2.5 REPORT ON CHANGES DURING IMPLEMENTATION (include actual and expected changes)

Describe changes to the project during the reporting period. In particular, the report should cover elements such as change of beneficial ownership structure, management changes of the Accredited Entity, policies and other elements relevant for the project, and any other material change that could influence the overall outcome of the project.

The project had no major changes in its implementation, the only change was an increase in the part of government co- financing under the Farmer Input Supply Programme (FISP). The government abandoned the Electronic-Voucher (e-voucher) system modality in preference for direct input supply under the farmer input supply programme to bring equity among beneficiaries. It was noted over the years, that the implementation of FISP has favoured those who receive inputs under the direct input supply modality. With the increase in commodity prices, farmers under the e-voucher got disadvantaged than farmers on the modality because the subsidy value had remained unchanged for a long time. It had been established that farmers under the e-Voucher modality have been receiving about two to three bags of fertiliser, whereas their counterparts under the direct input supply modality have been receiving up to six bags of fertiliser. Therefore, the government decided to correct the situation and put all the beneficiaries under the direct input supply under FISP and would receive six bags of fertiliser and one 10kg bag of maize seed in all the districts across the country. This entails that those farmers in the Southern Province, the Western Province, and parts of Lusaka Province which includes 12 of the 16 project districts who originally were on the e- Voucher modality were now receiving more inputs under the direct input supply modality. This change will increase food security and income to the 100,133 beneficiaries in 2021 from 87,899 beneficiaries in 2020 under the programme.

Due to currency devaluations, the interest rates were increased from 8.5% in February 2021 to 9% in November 2021, this was meant to reduce pressure on the local currency and stem inflation which had reached 24.6% in July 2021. However, this move in the short term resulted in increased cost for borrowing and cost of inputs for the farmers.

As part of the ongoing project monitoring activities please find an updated monitoring plan for 2022 as attachment: A8.

2.6 IMPLEMENTATION CHALLENGES AND LESSONS LEARNED

Describe implementation challenges faced during the last reporting period, including measures adopted and lessons learned. If any issues have arisen in the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project, please provide a description of those items and how they have impacted the implementation period and final targets.

Challenge encountered	Type ²⁷	Measures adopted	Impact on the project implementation ²⁸	Lessons learned and Other Remarks
The Coordination challenges between WARMA and project partners persisted from 2020 until the fourth quarter of 2021.	Political	MoA and WARMA signed a letter of agreement for the implementation of project activities. This streamlined the roles and responsibilities of	Moderate	The letters of agreement should be signed preferably for a longer-term e.g., 3yrs and if yearly, it should be at the beginning of the implementing

²⁷ Implementation; Legal; Financial; Environmental/Social; Political; Procurement; Other; AML/CFT; Sanctions; Prohibited Practices.

²⁸ Minor/Solved; Moderate; High.

		WARMA in implementation. UNDP further engaged WARMA to resolve the communication challenges that had been noticed by the stakeholders on the project.		year to avoid delays in implementation. Furthermore, there must be continuous engagement between partners to enhance communication.
Inadequate staffing levels at PMU during quarter 1 and 2 of 2021.	<i>Implementation</i>	In the second half of the year, the vacant positions for M&E, Gender, Alternative livelihood officer and Research Assistants (02) were filled up. Further, the position of. These recruitments resulted in improved implementation and service delivery by the PMU.	<i>Moderate</i>	Adequate staffing is key for effective support towards implementation.
Delay in reporting of expenditure by MoA's districts	<i>Financial</i>	Two capacity development/training sessions were conducted for the Implementing partner and responsible partners in planning, financial reporting, M&E and ESS by UNDP	<i>High</i>	Continuous capacity development is recommended to be conducted at least twice a year to enhance project delivery. The failure to report correctly which was experienced by MoA was attributed to inadequate skill. As a mitigation measure, UNDP will be continue conducting capacity development sessions on HACT to MoA and other partners.
Lack of regular meetings by the Project i.e. Technical committee, delayed procurements due to COVID.	<i>Implementation</i>	Though the technical committee on the project's steering committee only had one meeting instead of the regular quarterly meetings, MoA, UNDP and WFP had regular oversight meetings where they provided guidance and support to the project. This was evidenced by a joint field monitoring mission which was attended by senior management from MoA, WFP and UNDP.	<i>Moderate</i>	Regular oversight meetings by all project stakeholders enhance coordination and help to resolve issues around implementation to enhance project delivery.
		Due to disruptions of logistic and supply chain by Covid 19 pandemic, the project has adopted to start the procurement processes ahead of schedule	<i>Moderate</i>	Regular monitoring of the procurement plan enhances scope for management action
		Due to restrictions on gatherings and meetings, a hybrid approach was undertaken, i) repetitive small meetings approach was adopted to ensure that project activities were implemented within the rules of Covid prevention restrictions on large gatherings, ii) adoption of digital	<i>Moderate</i>	The promotion of Covid vaccine roll out among project stakeholders would reduce risk of transmission and enhance project delivery.

		technology to address the restriction on movements and large gatherings, this mode though limited in scope due to lack of reliable mobile network, it facilitated for continuous project implementation		
Inconsistent tracking of achievements against target partly due to different data collection tools and templates by the various partners in the project.	<i>Implementation</i>	PMU formed a joint M&E task force comprising M&E officers from all project partners supported by C4ED to streamline data collection tools & templates to strengthen the tracking system.	<i>moderate</i>	Data collection and verification is smoothened once the systems adopted for use are similar and responds to project indicators
Delayed procurements	<i>Procurement</i>	MoA got overwhelmed with the huge number of procurements in their procurement plan resulting in noticeable delays. However, through collaborative efforts with UNDP CO, some of the activities under the procurement were shared to enhance delivery and UNDP assigned a dedicated officer to handle all SCRALA related procurements.	<i>Moderate</i>	The procurement plan should reflect the capacities of each institution and should be regularly monitored to ensure timely delivery and adjustment where necessary, as a mitigation measure, MoA and UNDP will have monthly reviews on procurement activities, and further UNDP would be conducting some procurements on behalf of MoA
Delayed release of funds to contractors by MoA	<i>Political</i>	Due to elections and subsequent change of government, the new government put a stop order on all payments to contractors until an audit was conducted, this resulted in delayed payments to contractors hence affecting project delivery.	<i>Moderate</i>	Good record keeping ensured that the audit was concluded without issues

SECTION 4: REPORT PROJECT SPECIFIC ON ENVIRONMENTAL AND SOCIAL

SAFEGUARDS & GENDER

4.1 IMPLEMENTATION OF ENVIRONMENTAL AND SOCIAL SAFEGUARDS AND GENDER ELEMENTS

(max 1 page)

(1) Projects Risks and Impacts Identified

In line with the Social and Environmental Screening Procedures of UNDP (SESP), the screening of the SCRALA project remains in category B (Moderate risk). Overall, the projects still present moderate environmental and social risks with impacts that are of low magnitude, site specific, temporary, and can be easily managed. The major risks relate to disturbance of flora and fauna, occupation, health and safety which are all related to construction of irrigation schemes and bulking centres. The Project has taken measures to address these measures which are part of the Environmental and social management plans and programmes. The project has continued to screen the project activities, As a consequence site specific environmental management plans have been developed to address all risks. Uncontrolled Underground water abstraction poses a risk to water availability, therefore, underground water monitoring measures will continue being enhanced.

(2) Status of compliance with applicable laws and regulations and the conditions and covenants under FAA

Applicable laws and regulations/conditions and covenants	Status of compliance
FAA Clause 10.02	
d) Undertake and/or put in place any adequate measures in order to ensure that the management of the environmental and social risks and impacts arising from the Funded Activity complies at all times the recommendations, requirements and procedures set forth in the Environmental and Social Management Framework ("ESMF"), which was provided by the Accredited Entity to the Fund before the Approval Decision.	Compliant: Measures to ensure management of risks are in place. All sites with construction work have ESMP developed and implemented to avoid environmental and social impact.
e) Ensure that the GCF Proceeds will not support or finance, directly or indirectly, any activities with potential environmental and social risks that are equivalent to category A pursuant to the Environmental and Social Risks Categories to be conducted as part of the project	Compliant: All project activities are screened to determine the level of impacts. Activities implemented under reporting year had moderate impacts, Category B.
f) Obtain, or ensure that the Executing Entity shall acquire, all land and rights in respect of land that are required to carry out the Funded Activity and promptly furnish to the GCF, upon its request, evidence that such land and rights in respect of the land are available for the purposes of the Funded Activity	Compliant: The Ministry of Agriculture ensures that all land acquisition is done with full recognition of the Lands Act of 1994. Communities are extensively informed and engaged. For traditional land, community members together with local traditional leaders are engaged. Only land where communities and traditional Leaders have been informed and have given consent are utilised for the project. Letters of consent from the community members and local traditional leadership are therefore obtained before embarking on any project activities.
g) Prior to commencing any construction works or activities for the implementation of the Project, submit the detailed Environmental and Social Management Plan ("ESMP") related to the relevant construction works or activities to be executed	Compliant: All construction works done in the year 2021 have site specific ESMPs
i) Ensure that (i) in case the access to the land on which the project will be implemented and the access to natural resources thereon are restricted due to the project implementation, for any period of time, prior written consent from the affected communities is obtained and	Compliant: Land consent letters from communities are in place. The consent is also given by the local traditional leaders. Assessment on the land ownership is done as part of the site-specific EIA to ensure there is no temporal and permanent economic displacement

(ii) any such restrictions do not result in temporary or permanent economic displacement of communities.	
Environmental Management Act (EMA) No. 12 2011: Relevant provisions under EMA include sustainable use of natural recourse. Section 29 of the Act prescribes for approval from the Authority for any project that may adversely affect the environment; and public participation in decision-making and access to environmental information.	Compliant: Project has ensured approval from the Zambia Management Agency (ZEMA) before construction of irrigation schemes (Attachment A10). The Act is also adhered to through the involvement of communities in improving access of environmental information by communities.
Environmental Protection and Pollution Control, (Environmental Impact Assessment) EIA Regulations 1997 The regulation requires that an EIS be prepared and submitted to the relevant regulatory authority for review and approval before a developer commences project implementation.	Compliant: Most of the project activities do not fall under the demands of the national Environmental Impact Assessment (EIA) regulations. Nonetheless, to ensure due diligence, PMU has executed site specific environmental impact assessments for irrigation schemes (Attachment A10). For the reporting year, 23 Environmental Project Briefs (EPB) EPBs are under way envisaged to be completed by second quarter of 2022
Lands Acquisition Act 1994: Section 12 (b) provides compensation of land affected persons and land acquisition	Compliant: All land earmarked for project activities are under customary land. Therefore, consent from and engagement of traditional leaders and communities has been sought (Attachment A22). A Grievance Redress Mechanism (GRM), through the ESS committees is in place for any land disputes.
Bio Safety Act 2007: provision for non-use of genetically modified organism whether intended for release into the environment, for use as a pharmaceutical, for food, feed or processing, or a product of a genetically modified organism	Compliant: No GMO has been used in the project.
Fisheries Act 2011 relevant provisions include sustainable development of fisheries and a precautionary approach in fisheries management, conservation, utilization and development; establishment of fisheries management areas and fisheries management committees Section 45 is relevant to EIA and states: <i>A person who intends to engage in aquaculture shall conduct an environmental impact assessment in accordance with the provisions of the Environmental Management Act, 2011, and prepare a report thereon for the purposes of this Act. Include the clause on the 400 tonnes threshold.</i>	Compliant: The fish farms proposed under the project harvest a target of 20 tonnes of fish per year per fish farm. The trigger for an EIA under the Act is 100 tonnes or more of yield from a fish farm.
Forest Act of No. 4 of 2015: repealed the Forest Act No. 7 of 1999. It provides for establishment and declaration of National Forests, Local Forests, joint forest management areas, botanical reserves, private forests and community forests	Compliant: The project activities are screened during the site-specific assessments (See Approved EPB in attachment A10). All construction sites do not fall in a protected forest. However, construction activity will entail clearing of some vegetation and shrubs to pave way for the construction of the irrigation scheme, all site clearing involves selective land clearing which is done after a site-specific assessment the ESS Officer has established mitigation measures for any negative consequences (attachment A10b).
Occupational Health and Safety Act 2010: Section 16 provides the duties of employers at workplaces in respect of health and safety at workplaces.	Compliant: PMU has been monitoring contractors to ensure they adherence to the Act. Contractors have been inducted on this Act to ensure compliance to the legal obligation (see training of contractors ESS Induction, (Attachment A9)
The National Heritage Conservation Commission Act 1989. provides for the conservation of ancient, cultural and natural heritage, relics and other objects of aesthetic, historical, pre-historical, archaeological or scientific interest	Compliant: There has been continuous screening and engagement with relevant authorities through site specific assessments for any ancient artifacts, cultural and natural heritage. For the year under review, no artefacts were reported in the project intervention areas.
Public Health Act 1930: This Act provides for the prevention and suppression of diseases and the general regulation of all	Compliant: The Act has been triggered more at the construc-

matters connected with public health in Zambia.	tion sites. All construction sites have been monitored to ensure no harm is done to the public and communities. (see quarterly monitoring report (Attachment A9) and site specific ESMPs (Attachment A10b))
Water Resources Management Act 2011: The legislation provides for the sustainable utilization of the water resource and provides for the right to draw or take water for domestic and non-commercial purposes.	Complaint: PMU has applied for drilling permits for 138 boreholes from WARMA for ion sites. For the year under review two surface water abstraction permits were applied for from WARMA.
Wildlife Act No. 14 of 2015: Repeals and replaces the Wildlife Act no. 12 of 1998 and provides for sustainable use and protection of wildlife	Complaint: The ESS Officer and EIA consultant screened project site locations to ensure the project areas are not within the National Parks. However, some irrigation schemes are within or close to Game Management Areas (GMA) which are basically areas that buffer the national Parks. Therefore, PMU has worked closely with the Department of National Parks in the affected areas to ensure effective measures to protect wildlife in the GMAs. (Attachment A10)
The National Policy on Environment (NPE): The NPE is the main policy that directs environmental management in Zambia. The policy is designed to create a complete framework for effective natural resource utilization and environmental conservation which is critical for achievement of sustainable development	Complaint: The activities of the project have various moderate impacts on the environment and the communities. Therefore, the PMU through the ESS officer frequently monitors the project activities to ensure that the project is implemented in an environmentally sound manner in line with the provision of NPE. The project has also built capacity of 220 ESS Committees in monitoring the implementation of mitigation measures

Implementation of management plans and programmes

(i) activities implemented during the reporting period, including monitoring	(ii) outputs during the reporting period	(iii) key environmental, social and gender issues, risks and impacts addressed during implementation	(iv) any pending key environmental, social and gender issues needing accredited entity's actions and GCF attention
Re-structuring the environmental and social safeguards documentation and procedures, to encourage better cataloguing, monitoring, and reporting of the ESMF/ESMP.	Redefined, separated and updated ESMF/ESMP	Addressed the inadequacy of the ESMF/ESMP monitoring	N/A
Reviewed and updated project-level GRM.	Updated GRM in place	Monitoring of grievances	N/A
Finalisation of the contractor and camp officer ESS-compliance checklists/monitoring report templates.	Separate templates for ESS monitoring for contractors and Camp Officers	OHS risks associated with construction	N/A
Implementation of ESMP for site specific interventions at construction sites (bulking centres and Irrigation Schemes.	A total of five (05) Contractors were inducted and monitored to ensure the enhanced implementation of site specific ESMPs	Environmental, Occupational, Healthy and Safety risks associated with construction	N/A
Capacity building for the ESS committees on their roles in	a total of 220 ESS Committees in all 220 agricultural camps that are	Grievances emanating from project activities	N/A

the project implementation	able to monitor project ESMF and implement GRM		
Screening and monitoring of the Environmental and Social Management Framework and the risks associated to it	Quarterly updated environmental and social risks.	Risk associated with supply of inputs, specifically the introduction of invasive species from the distribution of seed to farmers. The risks addressed related to Environmental, Occupational, Health and safety risks related to construction works, Others include land conflicts	N/A
Ground water pump tests and laboratory water tests	A total of 138 borehole pump test and ground water testing have been done to determine water suitability of groundwater for crop, livestock and human consumption	Excessive use of groundwater leading to draw down of water table and possible land subsidence and water quality.	None
Implementation of site specific ESMP, and Erosion, Drainage and Sedimentation Plans for the irrigation site.	No incidents of water pollution at the irrigation schemes constructions	Surface water pollution	None
Provision of certified seed suppliers under the promotion of conservation agriculture	Reduced use of recycled seeds	Introduction of pests and invasive plant species	none
Selection of Champion Farmers and provision of training for farmers in Conservation Agriculture, beekeeping in each agricultural camp . Provision of agricultural inputs (beekeeping, goats, CA seeds)	Strengthened capacity of farmers to adopt Sustainable Agricultural practices	Sustainable agricultural practices not maintained	none

Implementation of the stakeholder engagement plan

(i) activities implemented during the reporting period	(ii) dates and venues of engagement activities	(iii) information shared with stakeholders	(iv) outputs including issues addressed during the reporting period
<u>Farmer consultation/sensitization meetings on norms and options for Farmer Field Schools (FFS)</u>	Third Quarter (July-September 2021), in all 16 Districts	Sensitization of farmers, traditional leaders and councillors on the planned demonstrations.	Lead farmers were identified for each FFS sites, in readiness for setting up of the 2021/2022 FFS demonstrations.
Continued follow ups with	January -December, 2021	Project updates with district	Informed stakeholders on project implementation

stakeholders.		departments, project responsible parties	
Awareness raising of project safeguards, GRM among the project beneficiaries	First and Second Quarter (February-June 2021)	A total of 220 ESS committees have been trained on GRM	Well known Grievance redress mechanism among project beneficiaries.
Orientation and capacity building of communities and ESS committees on the project activities.	First and Second Quarter (February-June 2021) In 220 Agricultural camps in the sixteen districts	Project activities, the risks associated with the project, the files of ESS committees	Increased interest of the project by local communities, need to support the communities in participating in the monitoring of ESS mitigation measures
Further engagement of communities and traditional leaders over land for project irrigation schemes	First quarter and Third Quarter of 2021(January-June) in the 12 districts	Getting Communities consent over the land proposed irrigation schemes	Reduced land conflicts
Community Consultation during site specific assessment for the 23 irrigations schemes	Fourth Quarter (October-December) 2021 in 12 districts	purpose and benefits of making changes to land use	Communities gave consent to change of land use in the 23 sites
All-inclusive annual planning meetings involving staff from different departments	All Four quarters and annual planning meeting	Review of past activities and planning for next activities	Continued implementation of project activities in the face of transfers for focal persons
Capacity development for 80 Ministry of Agriculture officials in expenditure reporting	3 rd quarter, Capacity development training	Training in budgeting, reporting and M& E. UNDP training manuals on harmonised approach to cash transfer (HACT)	Enhanced and timely reporting of expenditures, the training addressed the delays in reporting of expenditure by MoA's districts
Training of farmers in Bee-keeping	First and second quarter 2021	Involvement of District forestry office in the training and implementation of beekeeping activities	Training of farmers and provided technical guidance to farmers in beekeeping

Implementation of the grievance redress mechanism

(i) description of issues/complaints received during the reporting period	(ii) status of addressing issues/complaints
Land conflict: One family in Central 1 camp, Nyimba District claimed that the traditional leaders didn't get consent on the land that was earmarked for irrigation scheme for the project.	Resolved: The district Agriculture Coordinators office, held meetings with the local traditional leadership, project beneficiaries and with the affected family. After deliberations, the meeting resolved to find alternative land for the project, as a consequence, a piece of communal land was then identified where all community members consented to and was availed for project activities.
Land Conflict: complaint received from farmers in Chitapo camp in January concerning the land earmarked for the weir construction in Mafinga District. One of the cooperatives that is part of the community had been funded under another project "TRALAD" to construct fishponds, and for pig rearing on the same land allocated for the proposed construction of the weir	Resolved. The district Agriculture Coordinators office held meetings with the community involved and the other stakeholder (TRALAD). It was resolved that the land marked for weir construction in Chitapo be left for the other project as they had already been funded for the activities. Therefore, a new alternative site was identified for the weir construction within the camp and selected after consent from community members for undertaking the proposed weir construction.
Breach of Terms of Agreement by the Goat beneficiary: Complaint by one pass-on goat beneficiary in Kanakantapa Camp, Chongwe district. The first beneficiary sold the goats before pass-on to the next beneficiary was done	Resolved. The complaint was brought to the attention of the of the ESS committee and later taken to the District Agriculture Coordinator's office for intervention. The district with the ESS committee met with the 1 st beneficiary in question to discuss the matter regarding the Goat beneficiary agreement, which has specific clauses related to breaches. Since there was a breach on the agreement. It was resolved that the seed goats be given to the second beneficiary.

<p>Selection of Project beneficiaries: Complaints received by ESS committees over biased selection of farmers to attend the Savings for change workshop in Kazungula district</p>	<p>Resolved: MoA District office and ESS committee conducted a meeting to raise awareness on the beneficiary criteria used on the project activities, this led to understanding of the criteria used.</p>
<p>Non-payments of Workers: ESS Committee in Vizi muuba Camp received a complaint from the general workers that worked for -Shandong Dejian Group Co. Zambia Limited (Bulking centre Contractor) for non-payment of salaries for a period of two months</p>	<p>Being Resolved: Project Management Unit and the District Ministry of Agriculture office met the contractor (Shandong Dejian Group Co. Zambia Limited) over outstanding allowances owed to the locally contracted short term employees. The contractor agreed on a resolution by committing to settle the allowances as soon as payments are received for the outstanding interim payment certificates.</p>

4.2 GENDER ACTION PLAN

All the project level indicators are disaggregated by gender, and in line with one of the key components of the GAP, the project has been collecting sex- disaggregated data from all the project districts. The data that was collected during the period under review indicates that 100,656 households out of 273,166 total households, of which (47%) 90,198 female and (53%) 100,358 male small-scale farmers benefited from the adoption of diversified, climate- resilient livelihood options and this data further indicates that the project is on track to achieving its intended target of reaching out to a minimum of 40% female beneficiaries. Below is a narrative and results framework that provide detailed information on this data.

Implementation of Gender Specific Actions

1. Collection of Qualitative Data to Deepen understanding of Gender Issues in relation to project activities to strengthen implementation

To identify and analyse the potentially gender- differentiated needs, challenges, opportunities, and different perceptions and experiences of SCRALA interventions and benefits, online Focus Group Discussions (FGDs) were conducted with district staff, and the following responsible parties: WFP, ZMD, FAO, and WARMA. These FGDs provided information on the needs and challenges that smallholder women and men experience in the following areas: access to weather/ climate based agricultural advisories, adoption of resilient- crop related inputs, new agricultural practices and alternative livelihoods that contribute to household resilience, access to storage, aggregation, transportation, and finance services. The results from these FGDs have been incorporated in the activity narratives below. In addition, the project is in the process of refining the data collection mechanism tool, to facilitate improved collection of qualitative data from the project beneficiaries. This information will contribute towards guiding the implementation of activities as the project would be able to better capture the needs, concerns, and priorities of beneficiaries in relation to critical gender responsive elements necessary for building climate resilience at household level.

2. Output 1: Smallholder farmers can plan for and manage climate risk to support resilient agricultural production

Access to improved Climate Information, Weather and Agricultural Advisories: Traditionally and in general, men are considered as decision makers in the home and community, so women require permission to undertake most activities. For instance, women are sometimes not allowed to attend community meetings as they are expected to be at home or in the fields, and in some cases where women attend the meetings, they are not allowed to participate in decision making. These are some of the reasons why women are unable to receive weather and agricultural advisories that are disseminated through community meetings. However, during the period under review, the project succeeded in disseminating climate information, weather, and agricultural advisories to 234,633 (39% female and 61% male) farmers through extension services, and radio programmes. This gender parity was achieved by the extension officers through conducting community meetings in locations and at times that were conducive for the women. Another reason why women fail to attend community meetings is because the meetings are conducted at times when they are doing their household chores such as fetching water, firewood, or cooking. Therefore, by taking this into consideration when planning for a sensitisation meeting, the extension officer is guaranteed to have more women in attendance.

3. Output 2: Resilient agricultural livelihoods in the face of changing rainfall, increasing drought, and occasional floods

New Agricultural Practices: Female farmers encounter several challenges in building on their indigenous knowledge strategies and experiences because of the following reasons. In rural areas, most women do not own land and therefore they sometimes ask for permission to use their husbands' or a relative's land. This dictates the type of crops, hectareage and location where women can cultivate their crops. For instance, more women cultivate groundnuts and cowpeas for household consumption compared to men. This disadvantages women because whilst they feed their families, the men sell off their produce and earn an income which they sometimes do not share with the women. In addition, women are expected to work in their fields after they have worked in the man's field, but this reduces the levels of productivity as women are exhausted and have no strength to work in their own fields. Furthermore, even though a good number of women have skills in agricultural production, some skills such as ploughing, and yoking which are key activities under conservation agriculture, are more physical, considered as a male activity and are therefore implemented by men. Therefore, the ongoing installation of drip irrigation schemes which is not labour intensive in the project areas would enhance the participation of women in crop production and increase their income levels. The women will be able to spend less time in the gardens because the drip irrigation system will water the plants, and this will allow the women to still have enough time to do their house chores compared to when they water their gardens using buckets or pedal pumps.

However, during the period under review, the project succeeded in disseminating information on new agricultural practices to both men and women through the following methods. Firstly, the project trained a total of 251 (**132 male and 119 female**) farmers in seed multiplication practices that will enable more female farmers to have access to diversified, early maturing and drought/ pest resistant seed as the seed grower groups that are going to multiply the seed will package it and sell it after it is harvested. Secondly, **2,066 (489) female and 2,168 (52%) male** lead/ champion farmers have adopted conservation agriculture practices.

These lead farmers have also trained 18 follower farmers each and therefore a total of 76,230 (44% female and 54% male) farmers received training in conservation agriculture follower farmers.

Alternative Livelihoods: Traditionally, livestock production is mainly considered as a male activity whilst women focus on making vegetable gardens which do not have well developed value chains in the rural areas i.e lack of market access. As a result, the women earn less income compared to the men. However, the project is promoting alternative livelihoods such as bee keeping, goat rearing and fish farming amongst men and women, to enable them to have an equal chance at earning an additional income from these practices. During the period under review, **673 (44%) female and 855 (56%) male** farmers adopted bee keeping, **1,395 (55%) female and 1,159 (45%) male** farmers adopted goat rearing, **569 (53%) female and 501 (46%) male** farmers received pass-on goats as alternative livelihoods. In summary, **2,667 (51%) female and 2,545 (49%) male** farmers have been equipped with alternative livelihoods that are strengthening their resilience to climate change.

Percentage Increase in Agricultural Incomes: The beekeeping alternative livelihood provides an example of how farmers were economically empowered during the year under review. **353 women and 297 men** in Mulobezi, Sesheke and Rufunsa districts have since received support in the form of capacity building trainings and beehives from the project. Of these 650 farmers, **116 of them** who comprise of **44 (38%) females and 72 (62%) males** harvested varying amounts of honey which amounted to 2,923.79kg (Mulobezi 483Kg, Rufunsa 2,120.79Kg, Sesheke 320Kg) and made an income of **K48,841 (\$2,911)**. The farmers harvested their honey during the fourth quarter of 2021 and therefore the project did not have enough time to assess and investigate the reasons as to why most of the women (**309 or 48%**) in these 3 camps did not manage to harvest honey despite the female number of beneficiaries being higher than the male one. The project will therefore make concerted efforts to understand these issues during 2022.

4. Output 3: Increasing farmers' access to markets and commercialisation of resilient agricultural products

Households accessing Financial Education Programmes – Savings for Change Methodology: 19,291 (12,919 (67%) female and 6,372 (33%) male) farmers, representing 3215 households have been trained in financial education programmes, specifically, in the Savings for Change' methodology. These households have used the knowledge and skills obtained from the trainings to start up and grow existing business, thereby broadening their income streams (see attachment: A16).

5. Documentation and Dissemination of gender- relevant best practices and lessons learned

A SCRALA gender mainstreaming brochure/ pamphlet titled 'Lessons from Project Implementation' was developed (attachment: A17) after the qualitative data collection focus group discussions were conducted with the district staff. This pamphlet was developed to document and share knowledge that has been gained in addressing gender, resilient livelihoods, and value chain development in the project. It highlights key issues such as, why it is crucial to mainstream gender into projects, the main barriers to gender equality in SCRALA districts, how these challenges are being overcome and gender mainstreaming methods that are being implemented in the project. The pamphlet was disseminated to all the project districts staff and responsible parties.

6. Integration of the Gender Perspective into Savings Groups Capacity Building Trainings

A training on 'facilitating linkages of Savings for Change groups to Financial Institutions, Input Credit, Mechanisation Loans, Energy Solutions and Mainstreaming Gender, Nutrition and HIV' was conducted, and it targeted the district staff, extension officers and project beneficiaries. The gender component equipped participants with information on how socially constructed traditional gender norms affect the daily lives of women and men, created space for participants to identify and address the harmful impact of traditional gender norms on fuelling the spread of HIV, supported participants with the knowledge and skills needed to mainstream gender into their respective program activities and how to conduct gender analysis amongst target communities. This training was conducted amongst **55 female and 110 male** district staff, **169 female and 121 male** extension staff and **61 female and 67 male** small-scale farmers. Due to COVID 19 restrictions on large gatherings, these trainings are on going as the first set of farmers, also known as animators, aggregators and nutrition champions, are going to train their respective group members.

Implementation Status of Commitments made to GCF in 2021:

Due to COVID- 19 restrictions, gender- responsive monitoring and capacity building activities were slowed. However, the following activities were implemented during the period under review in preparation for the 2022 planned activities:

1. Revision of the GAP to strengthen alignment with the overall project

The SCRALA Gender Action Plan was revised in February 2021 based on discussions with key staff and partners, a review of the APRs for 2019 and 2020 and other project documents. The revised GAP includes gender- responsive climate actions that focus on uplifting the lives of both vulnerable male and female farmers that are being targeted in the project. It also has gender performance indicators, sex- disaggregated targets and gender- responsive development impacts that the project aims to achieve.

2. Gender Capacity Assessment

An online gender capacity assessment (see attachment: A19) was conducted and it targeted staff from the ministry of agriculture headquarters, the district agricultural coordinators, the Senior Agricultural Officers, Extension Officers and the Research Assistants. The assessment focused on assessing the staffs' capacity to understand gender concepts and issues, address gender issues in their area of work related to livelihoods resilience and agriculture value chain development in the face of climate change and their capacity to conduct gender-based monitoring. The results indicated that over **60%** of the respondents can explain gender concepts and issues, **85.9%** have addressed gender in their work, and **58%** indicated that they can use gender responsive approaches in monitoring. However, **64.8%** of the respondents stated that they have not participated in any gender trainings. As a result, a gender capacity development plan was developed to address this gap.

3. Development of a Gender Capacity Development Plan

Upon analysing the results of the gender capacity assessment, a gender capacity development plan (see attachment: A20) was developed for the project. The plan includes capacity building trainings that will be implemented targeting the districts, RPs, PMU, and MoA headquarters staff. In addition, the plan places an emphasis on developing gender monitoring tools for the project and a knowledge management system that will have a platform on which districts will be able to share their best practices and lessons learnt for others to draw lessons.

4. Strengthen implementation by leveraging synergies with partners experienced in applying robust gender transformative household visioning approaches

A presentation on the Gender Action Learning System (GALS) methodology was conducted by a facilitator from Oxfam Zambia. The presentation targeted approximately **9 male** and **7 female** key personnel from the districts, the PMU staff and focal point persons from the Ministry of Agriculture HQ. The presentation highlighted the way in which the methodology may be included in the project to boost gender equality and women's empowerment, improve and deepen targeting and outreach to some of the most vulnerable households. The methodology also provides an opportunity for women and men to work together using pictorial tools to map out a vision for change within the household – this strengthens the resilience and wellbeing of those living within the household. A concept note to conduct a pilot- testing of the methodology in one of the sixteen districts was written by the Gender Consultant that was hired in 2020. However, due to COVID 19, implementation of this activity was affected, this is however, planned to take place in early 2022 after the 4th Wave of COVID-19 currently being experienced in the country.

5. Gender composition of the project steering committees and how it engages with women's or other relevant ministries to promote/ mainstream gender considerations –

6. The gender composition of the steering committee of permanent secretaries comprises 18% women and 82% men. It is overseeing the development/revision of appropriate policies, and legislation to facilitate the implementation of the National Policy on Climate Change as guided by the Council of Ministers in consultation with other stakeholders. It promotes mainstreaming of gender into all climate change programmes. To engender Climate Change programmes and activities in order to enhance gender equality and equity in the implementation of climate change programmes.

7. Design and implement a robust, but rapid participatory gender appraisal/study

Due to Covid 19 restrictions, the project was unable to implement the rapid participatory gender appraisal/ study which is aimed at digging deeper into gender issues and surface effective means for the project to address these in implementation. However, as mentioned above, some information was collected through the Focus Group Discussions.

Other Activities implemented:

1. Hiring a PSEA Consultant to build capacity amongst district/ project staff

The project engaged a Prevention of Sexual Exploitation and Abuse (PSEA) consultant who in the Q1 of 2022 will conduct capacity building trainings for project staff in all the sixteen districts. This training is aimed at strengthening prevention, reporting, referral, and investigation capacities of Camp Extension Officers on PSEA. The trainer will also build capacity in the Project gender officer to enable knowledge retention and ensure continuous trainings on PSEA at camp level. The trainer will also develop and action plan and data collection tools for the project to establish/ strengthen appropriate mechanisms for the GALS methodology

2. Inclusion of an implementation budget in the 2022 Annual Work Plan

The 2022 AWP will have a dedicated budget line for all gender related activities, this will ensure that gender mainstreaming at activity level is promoted.

4.2.1 PROGRESS ON IMPLEMENTING THE PROJECT-LEVEL GENDER ACTION PLAN SUBMITTED WITH THE FUNDING PROPOSAL.

Actions	Indicators	Baseline	Targets, including sex-disaggregated targets	Budget \$	Report on annual progress
Output 1: Smallholder farmers are able to plan for and manage climate risk to support resilient agricultural production	Percentage of smallholder farmers (disaggregated by gender) demonstrating knowledge to plan for and manage climate risk to support resilient agricultural production.	3.1%	- 450,961 (Female 175,961, Male 275,00)	15,000	37% (100,133) smallholder farmers out of 273,166 farmer households population able to plan and manage risk (approximately 47% of women and 53% of men)
	Percentage of population (disaggregated by gender) with access to improved climate information, weather and agricultural advisories.	20.5%	<i>Mid-term:</i> 52% of female population <i>Final:</i> 62% of female population	3750	25% (39% women and 61% men) total 234,633 farmers
	Perception of targeted populations (disaggregated by gender) on the timeliness, content and reach of weather, agricultural and water advisories.	32.5%	<i>Mid-term:</i> 30% female, 30% male <i>Final:</i> 70% of males, 70% of females perceive advisories as useful.	25,700	37% (86,814) of the total 234,633 farmers who received the seasonal weather and agricultural forecast considered it as timely and relevant
Activity 1.1: Strengthen generation and interpretation of climate information and data collection to ensure timely and detailed weather, climate, crop and hydrological forecasts are available to support smallholder in planning and management of water resources used in resilient agricultural practices Actions below contribute to Activity 1.1 and Output 1 (and associated indicators) Engage both women and men farmers in the generation and analysis of climate-related data building on lessons learned from their repository of experience.	Number of farmers involved in voluntary rainfall data collection network and those participating in dissemination workshops	TBD	TBD		ZMD has engaged some farmers who will be part of the rainfall network data collection as readers to be installed in Q1 2022, therefore, they regularly update and send information to the main central data analysis centre. Secondly, farmers are engaged during dissemination workshop in the districts where scientific and traditional data is discussed.
Engage with government bodies, universities, and other relevant stakeholders to strengthen capacity to develop climate and weather information systems and analysis in ways that respond to the information needs and constraints of women and men smallholders (e.g., through sharing of SCRALA's experiences/lessons learned on gender and climate information services with university course(s), providing inputs to university curricula developers, inclusion of gender sessions in training on interpretation and use of climate information, etc.).	Number of capacity development related initiatives/ policy dialogue events that include SCRALA contributions on gender and climate information services.			500	This activity was not implemented during the year under review because the gender mainstreaming training was not conducted for the ZMD staff. Some women and men face challenges in accessing this information because they do not own radio and mobile phones through which weather information is disseminated.

					The details have been included in the narrative above – output 1: Access to improved climate information
Integrate gender perspective in trainings related to CI/EW (e.g., strengthening capacity of ZMD; district agricultural/weather/climate advisory trainings, etc.).	Number of training events that mainstream a gender perspective/ include gender session	0	Minimum of 1 CI/EW-related initiative/event/process per year from 2021 – 2025 for a total of 4 by 2025.	5000	This activity was not implemented during the year under review because the gender mainstreaming training was not conducted for the ZMD staff
Develop and promote tailored and targeted weather and agricultural advisories that are gender responsive, considering the needs of women and men smallholders (e.g., women and men may need information at different points in the season depending on what and when they are planting, language, feedback from women and men on previous advisories [what was useful, what needs to be changed]).	ZMD and Department of Agriculture develop weather and agricultural advisories demonstrating evidence of considering the needs of women and men smallholders	0	100% by end of project	0	This activity was not implemented during the year under review because the gender mainstreaming training was not conducted for the ZMD staff
<p>Activity 1.2: Strengthen dissemination and use of tailored weather / climate-based agricultural advisories to ensure smallholder farmers receive the tailored information they need for planning and decision-making</p> <p><i>Actions below contribute to Activity 1.2 and Output 1 (and associated indicators)</i></p> <p>Identify the needs and challenges of smallholder women and men in accessing weather/climate-based agricultural advisories (e.g., communication channel, content, language).</p> <p>Incorporate different communication channels and approaches as needed to meet the specific advisory access needs and challenges of smallholder women and men (e.g., community/ farming/women's groups, radio, mobile, etc.).</p> <p>Integrate a gender and climate advisory services focus into training for extension workers, lead farmers, other smallholder farmers on interpretation and use of climate information (e.g., need for sharing</p>	<p>Indicators additional to disaggregated Output level indicators:</p> <p>Number of smallholder farmers, disaggregated by gender, accessing advisories to inform their agricultural planning.</p>	3.1%	52% of total smallholder farmers using advisories are women.	500	<p>A total of 126,128 farmers who comprise of 60,115 (48%) women and 66,013 (52%) men received weather information and agricultural advisories which they used to plan for the 2021/ 2022 rainfall season.</p> <p>Cumulative data (2019-2021): 64,377 (48%) women and 69,377 (52%) men</p> <p>The project has been disseminating information through community meetings/ extension services, SMS, and local radio stations. Although most women do not own phones and radios, they have been receiving the information through community meetings/</p>

<p>information accurately with different household members; considering most effective communication channels for women as well as men; consideration of women's time/mobility.</p>					<p>extension services because the extension officers normally conduct the trainings in locations and during times that are conducive for the women.</p> <p>A gender and climate advisory services focus was not integrated into the trainings that were conducted during the period under review because COVID 19 restrictions made it difficult to conduct training of trainer's meetings with extension officers. Moreover, it is only after the extension officers are trained that the farmers can be trained too.</p>
<p>Output 2: Resilient agricultural livelihoods in the face of changing rainfall, increasing drought, and occasional floods</p>	<p>Area (ha) of agriculture land made more resilient to climate change through changed agricultural practices (e.g., planning times new and resilient native varieties, efficient irrigation schemes adopted).</p>	<p>0 ha</p>	<p>Midterm: 800 ha Final: 2,700 ha</p>	<p>0</p>	<p>120,393 ha for CA with 40% women participation</p>
	<p>Number of farmers (disaggregated by gender) adopting new agricultural practices and alternative livelihoods</p>	<p>0</p>	<p>Mid-term: female: 40,000 male: 60,000 Final: female: 83,000 male: 124,510</p>	<p>1,000</p>	<p>A total of 87,166 farmers (40,629 women, 49%, and 46,537 men, 51%) men have adopted new agricultural practices and alternative livelihoods since project inception. The larger proportion comprises of farmers that have adopted new agricultural practices in conservation agriculture (45% female and 55% male).</p>
	<p>Percentage increase in agricultural incomes in project sites.</p>	<p>0</p>	<p>Midterm: 35% of both male and female smallholder farmers show an increase in</p>		<p>This indicator does not have baseline data because it was not included in the baseline survey and therefore, there is no basis to</p>

			<p>agricultural incomes by at least 25%</p> <p>Final: 75% of both male and female smallholder farmers show an increase in agricultural incomes by at least 60%.</p>		<p>calculate the increase in agricultural incomes.</p> <p>However, 116 farmers (44 female and 72 male) from Mulobezi, Rufunsa and Sesheke districts harvested 2,923.79kg of honey and sold 2,818.79 kg from which they made K48,841 (\$2,911).</p> <p>More comprehensive data on the income increments will be provided during the next reporting period.</p>
<p>Activity 2.1: Promote irrigation schemes, water storage and capture as well as other resilient water management strategies to increase access to water for agricultural production in the target districts within Agro-ecological Regions I and II</p> <p>Actions below contribute to Activity 2.1 and Output 2 (and associated indicators)</p> <p>Identify the potentially different needs and challenges of women and men smallholder farmers using and/or interested in introducing resilient water management strategies (e.g., irrigation schemes, water storage and capture).</p> <p>Work with women as well as men smallholders to develop strategies to increase their water access and irrigation through, for example integrating group/household resilience visioning in water associations, community dialogues, FFS, etc.</p> <p>Integrate gender issues (e.g., around access and use of water, decision-making over water use, etc.) in trainings on water management approaches for water user groups and Water User Associations.</p> <p>Strengthen the participation of men and women in water user groups and associations, including greater participation of women in leadership positions.</p>	<p>No additional indicators to disaggregated Output level indicators above:</p> <p>Number of women in leadership positions of Water User Associations.</p>	0	Minimum 40%	1,000	<p>Most rural farmers use buckets to water their vegetable gardens, and this reduces their levels of productivity because the activity is strenuous. In addition, women are mostly affected because they must couple this activity with house chores.</p> <p>The project engaged a facilitator from Oxfam Zambia to give a presentation to 9 male and 7 female key personnel on what the Gender Action Learning System (GALS) methodology is about. However, the methodology has not been implemented.</p> <p>the trainings on water management approaches have not been conducted yet. However, plans to do so have been included in</p>

					<p>the 2022 annual workplan.</p> <p>17 Water User Associations have been formed across the 16 districts and 63 (39%) women occupy leadership positions of Water User Associations.</p>
<p>Activity 2.2: Increased access to agricultural inputs (e.g. seeds, soil kits) for resilient crops</p> <p>Actions below contribute to Activity 2.2 and Output 2 (and associated indicators)</p> <p>Identify the differentiated needs and priorities of resilient-crop related inputs (e.g., crop varieties) for men and women smallholders to understand the crop adoption interests, needs and challenges.</p> <p>Improve adoption of diversified crops by strengthening access to seeds/ inputs and extension support for drought- and pest-resistant, and early maturing crop varieties for both men and women smallholder farmers based on their needs, interests, challenges.</p> <p>Include both women and men in seed multiplication training and implementation.</p>	<p>No additional indicators to disaggregated Output level indicators which are relevant for this Activity.</p>	0		1,000	<p>most female farmers do not own land and this sometimes dictates the types of crops, hectareage and locations where they cultivate. For instance, women have to work in their husband's fields before they can work in their own. As a result, the sizes of their fields are smaller compared to those of men because their levels of productivity are low. (The details have been included in the narrative above – output 2: New agricultural practices)</p> <p>13,700 farmers, 5,480 (40%) females and 8,220 (60%) males were provided with cowpeas, groundnuts, pigeon peas, sorghum and sunflower seeds.</p> <p>A total of 251 comprising of 132 (53%) male and 119 (47%) female farmers were trained in seed multiplication practices</p>
<p>Activity 2.3: Introduction of new agricultural practices to strengthen production and diversify crops in the context of climate variability and change</p>	<p>Indicators additional to disaggregated Output level indicators:</p>				

<p>Actions below contribute to Activity 2.3 and Output 2 (and associated indicators)</p> <p>Identify the differentiated needs and priorities of new agricultural practices for men and women smallholders to understand the interests, needs and challenges in the context of climate change.</p> <p>Introduce new agricultural practices for both women and men that build on their (potentially differentiated) indigenous knowledge strategies and experience</p> <p>Work respectfully with women and men smallholders to document local/indigenous (IK) practices and coping mechanisms, paying due attention to any IK related legal commitments/policies that must be considered.</p>	<p>Number of knowledge sharing/ communication products (e.g., policy brief, pamphlet, video, presentation, etc.) featuring examples/case studies of gender and IK practices/lessons learned /good practices in SCRALA.</p>	<p>0</p>	<p>At least 1 video, 1 case study, 1 other medium depending on audience (by 2025); and at least 1 communication/ news blogpost per year (These products may combine with knowledge sharing from other activities.)</p>	<p>500</p>	<p>1 pamphlet was developed on the lessons that have been learned during gender mainstreaming in the project. However, it was not possible to travel and collect stories from beneficiaries to develop videos, presentations etc due to COVID 19 restrictions</p> <p>This information will be provided in the next reporting period as it is dependant on the rapid participatory gender study.</p> <p>76,230 (44% female, 54% male) and cumulatively 154,296 (45% female, 55% male) farmers trained in Conservation Agriculture</p>
<p>Activity 2.4: Introduce alternative livelihoods to strengthen resilience of target communities</p> <p>Actions below contribute to Activity 2.4 and Output 2 (and associated indicators)</p> <p>Identify the different needs and challenges of women in adopting different and contribute to household resilience.</p> <p>Conduct community dialogues including resilience visioning, for example by incorporating approaches such as, e.g., household visioning tools, Gender Action Learning Systems or other suitable approach to strengthen adoption of alternative livelihoods and household resilience.</p> <p>Work with women to identify those who are interested in becoming champions and leaders for adopting alternative livelihoods and engage men in supporting women as champions and leaders.</p>	<p>Indicators additional to disaggregated Output level indicators:</p> <p>Indicator: Number of women in leadership positions in newly established cooperatives or farmer groups for alternative livelihoods.</p>	<p>0</p>	<p>40% of leadership positions are held by women.</p>	<p>1,000</p>	<p>Traditionally, livestock production is mainly considered as a male activity whilst women focus on making vegetable gardens which do not have well developed value chains in the rural areas i.e lack of market access. As a result, the women earn less income compared to the men.</p> <p>Steps have been taken to introduce the GALs methodology to key stakeholders involved in implementation, including...The GALs methodology is going to be implemented in 2022.</p>

<p>Include men and women in training and technical support for alternative livelihoods.</p>					<p>1,109 (66%) women are in leadership positions in newly established cooperatives or farmer groups for alternative livelihoods</p> <p>2,667 (51%) female and 2,545 (49%) male farmers were trained and equipped with alternative livelihoods in bee keeping, and goat rearing during the period under review. Cumulatively, 8,112 farmers of which 44% are women and 56% are men are adopting alternative livelihoods.</p> <p>The project has 718 female beekeepers in comparison to 3,162 female goat farmers because it has been perceived that goat rearing is not a labour-intensive activity in comparison to beekeeping.</p>
<p>Activity 2.5: Establish farmer field schools and learning centers of excellence to further document and scale up successful practices</p> <p>Actions below contribute to Activity 2.5 and Output 2 (and associated indicators)</p> <p>Identify the needs and challenges of women and men in relation to the training approach and curriculum of FFS and learning centres of excellence as well as ongoing access to information through these. For example, timing/location of training, potential for actively engaging in FFS and voicing opinions, ideas (which may require women working together and men working together at times).</p> <p>Integrate resilience/household visioning approach (e.g., Gender Action Learning Systems) into the content of FFS training and curriculum and centers of excellence and/or related</p>	<p>Indicators additional to disaggregated Output level indicators above:</p> <p>Number/% of farmers, disaggregated by gender, who are lead farmers and/or hold other similar leadership positions.</p>	<p>0</p>	<p>40% women</p>	<p>500</p>	<p>1,717 (46%) female and 2,055 (54%) male farmers are lead farmers in the farmer field schools and learning centres of excellence</p>

processes to support women and men in identifying medium and long-term visions and the opportunities and constraints to getting there. (This also allows opportunity for raising gender issues, e.g., labour/time use/mobility, (inequitable) decision-making/power dynamics including on income and expenditure, access to land, inputs, etc. that if addressed, can contribute greatly to building resilience of households, groups, and communities.					
Output 3: Increasing farmers' access to markets and commercialization of resilient agricultural products	Percentage of resilient commodities produced by target farmers (disaggregated by gender) that are sold on the market	0	80% for female and 80% for male	0	There is not data for this indicator as farmers will harvest the seed that they were provided with in 2021 during 2022.
	Percentage of households accessing financial education programmes related to credit and insurance schemes	0	50% male-headed households, 50% female headed households	0	Progress in 2021 19,291 (12,919 (67%) female and 6,372 (33%) male) farmers accessed financial education through savings groups
Activity 3.1: Strengthen processing of resilient products Actions below contribute to Activity 3.1 and Output 3 (and associated indicators)	Indicators additional to disaggregated Output level indicators above: Indicator: Number of farmers, disaggregated by gender, in leadership positions related to processing (e.g., cooperatives, processing centres, etc.)	0	40% women	500	This information will be provided in the next reporting period as it is dependant on the rapid participatory gender study. 3,007 (51%) female and 2,894 (49%) male farmers are in leadership positions related to processing.
Activity 3.2: Strengthen storage, aggregation and transportation of resilient products to enhance commercialisation and linkages to market and SMEs Actions below contribute to Activity 3.2 and Output 3 (and associated indicators)	Indicators additional to disaggregated Output level indicators above: Number of farmers, disaggregated by gender, with improved access to markets.	0	40% women	300	491 farmers were trained in how to use the Maano virtual farmers' market app for them to gain access to markets for their produce. Trainings on business skills. Entrepreneurship,
		0	40% women		

Engage women as well as men in all trainings and provide opportunities for them within the storage, aggregation, and transportation networks.	Number of women in leadership roles (e.g., of cooperatives).				and leadership have been planned for and will be implemented in 2022. This data will be provided in the next reporting period.
Incorporate training on business skills, leadership and decision-making that responds to the needs and challenges of women as well as men.					
Ensure training/curricula on the rollout of agricultural, climate change adaption, business, leadership and entrepreneur training highlights needs and challenges of both women and men as well as opportunities and ways of addressing these.					
Activity 3.3 Increase access to finance and insurance products for smallholder farmers by engaging with potential financing sources including public, private, bilateral and multi-lateral sources. Actions below contribute to Activity 3.3 and Output 3 (and associated indicators) Identify opportunities, needs, and challenges of women and men in accessing financing through different sources and facilitate dialogue with finance providers. Include women and men in all training and make training gender-responsive (e.g., meeting needs and challenges of women/men in accessing/participating in training, location, timing; ensuring women's voice is heard, etc.) Work with women and men to support women in strengthening their access to services (e.g., credit, insurance).	Indicators additional to disaggregated Output level indicators above: Number of farmers, disaggregated by gender, adopting new financial and/or insurance products.	0	40% of women	300	This information will be provided in the next reporting period as it is dependant on the rapid participatory gender study. The farmers have not been linked to financial providers, but this activity has been planned for in the 2022 annual workplan.
Activity 3.4: Identify available markets and promote climate- resilient products Actions below contribute to Activity 3.4 and Output 3 (and associated indicators) Identify strategies to target both men and women in nutrition education and engage both men and women in	No additional indicators to disaggregated Output level indicators which are relevant for this Activity.			300	128 Farmers (61 female and 67 male) were trained in nutrition practices such as food processing and preservation (solar driers), selling surplus

campaigns around nutrition and alternative crops.					production for income, consumption (dietary diversity, WASH).. etc
Develop/strengthen links between both women and men smallholder farmers and private sector actors on resilient crops and identify and mitigate/resolve any needs and challenges experienced.					Procurement of indigenous foods from farmers, and school garden activities have not been implemented yet.
Procure indigenous foods from both men and women smallholder farmers equally.					
Include girls and boys in school garden activities and awareness raising on resilient crops.					

4.3 PLANNED ACTIVITIES ON ENVIRONMENTAL AND SOCIAL SAFEGUARDS

To ensure continual compliance to environmental and social safeguards, the Scrala project has planned the following activities for the year 2022:

- Update the ESMF and ESMP to align mitigation measures with current regulatory framework and updated risks, as applicable, to the project activities.
- Closely provide technical support and conduct capacity development trainings to field staff (Camp Extension Officers) and ESS Committees to enhance their skills in monitoring, compliance and reporting on ESMF implementation.
- Develop site specific environmental and social management plans assessments for irrigation schemes by second quarter 2022
- Install surface and groundwater quality monitoring systems in irrigation schemes catchment areas to monitor the quality and quantity of surface and underground water.
- Include ESMF requirement in the contractors bidding and procurement processes
- Develop Biodiversity Action plan for irrigation schemes located close to and/or within Game Management Areas to prevent, and minimise biodiversity loss and the occurrences of human-wildlife conflict risks
- Monitoring of water abstraction to ensure pump capacity is not more than 80 % of the borehole yield at the irrigation schemes
- Quarterly monitoring of ESS in all 16 districts with special attention for the construction sites for the irrigation schemes and bulking centres
- Continue the implementation of the Stakeholder Engagement Plan
- Continue the monitoring the implementation of GRM
- Translate ESS Brochures into local languages
- Continue quarterly updating of project risk and impacts

4.4 PLANNED ACTIVITIES ON GENDER ELEMENTS

Activities planned for 2022 include:

- To Train 220 Camp Extension Officers in both Prevention of Sexual Exploitation and Abuse and Gender Mainstreaming. This Training will involve in-person training sessions at conveniently designated sites across the various SCRALA Project Districts.
- Develop qualitative data collection tools.
- Strengthen or establish cooperatives in each of the 16 districts to manage production and distribution of improved seed varieties through training of 32 officers as seed inspectors and 16 cooperatives in seed multiplication.
- Setting up a seed multiplication scheme in SCRALA districts.

- Strengthen capacity of farmer beneficiaries across all 16 target districts to adopt and maintain alternative livelihoods through training in goat disease.
- Conduct training in Agro processing to 300 (55% F, 45% M) farmers across nine districts.
- Build capacity of the target group that will be participating in processing and value addition activities, support identification of commodities for value addition. Produce and share at least one knowledge sharing/communication product (e.g., policy brief, pamphlet, video, presentation, etc.) featuring examples/case studies of gender and indigenous knowledge practices/lessons learned/good practices in SCRALA.
- Implement a Capacity Development (CD) Strategy/Plan aimed at strengthening individual and institutional capacity across the project's implementation. Activities to strengthen SCRALA capacity will begin to roll out in the first half and build, in part, on training and other activities that the 2022 AWP includes (e.g., village and savings, index, climate advisory services, etc.). This means the project partners will ensure that sessions on gender and gender-responsive approaches are part of training and activities at different levels as well as developing separate targeted trainings and other institutional capacity development supports on gender where needed.
- Design and implement a robust, but rapid participatory gender appraisal/study leveraging partnerships with existing or other partners who have strong experience in this area – to dig deeper into the gender issues and surface effective means for the project to address these in implementation.
- Conduct gender- sensitisation programmes for the government departments, non- governmental organisations and community-based organisations, and make them aware of gender- relevant priorities, strategies and possible partnership arrangements.
- Strengthen implementation e.g., through adding value to ongoing FFS, Village Savings and loans, community dialogue interventions, etc. by leveraging synergies with partners experienced in applying robust gender transformative/engaging men/household visioning approaches. This may include, for example, building on UNDP/Men Engage Network's work to support gender equality/women's empowerment; WFP's gender-transformative approaches and other organizations' work in similar areas.

SECTION 5: ANNEXES

Annex 1. Updated implementation timetable for the Funded Activity.

Annex 2. Accredited Entity compliance reports (self-assessment reports²⁹, report on actions pursuant to Clause 18.02, if applicable³⁰).

SECTION 6: ATTACHMENTS

Attachment 1. Unaudited/Audited financial statements (as required by FAA).

(If available. If not submitted, indicate date of submission.)

Attachment 2. Interim/Final evaluation report (as required by FAA).

(If available. If not submitted, indicate date of submission.)

Other Attachments (if any). Such as additional budget-related information, loan repayment schedules to GCF (interest/principal), equity investment schedules, other related reports relevant to the Funded Activity, statements of capital account, valuation reports, credit guarantee agreements, investor reports, and others, as specified in the relevant legal agreements (e.g. Funded Activity Agreement, Shareholders Agreement)

ADDITIONAL SECTION: COVID-19 IMPACT

Please indicate if your project/programme is adversely impacted by the COVID-19 pandemic.

Yes

Please choose the severity of overall impact (Description of levels of severity):

1. On-track with no or minor impact: No or minor impact on project implementation and corresponding annual activities.

2. Facing delays: Implementation progress faced delays in the timeline but did not require any substantial changes in the implementation plan.

3. A minor change(s) required: Changes that are not classified as Major changes but requires intervention from GCF.

4. A major change(s) required: As per paragraph 16 of the Policy on Restructuring and Cancellation - Board Decision B.22/14 paragraph (a). Please find the link to the policy document below.)

Please describe an overall impact on your project/programme by the COVID-19 pandemic (100-word limit).

The project Implementation progress faced delays in the timeline but did not require any substantial changes in the implementation plan. Due the restrictive measures on gatherings, engagement with farmers was affected, extension services were affected because only small numbers of farmers of less than 15 could be reached out to at any given time, thus, it required a lot of frequent meetings and more time to complete an activity. The field monitoring of project activities was affected, as certain missions had to be cancelled, this affected the quality of delivery in

²⁹ In accordance with the AMA requirement in Clause 13.01 of the Accreditation Master Agreement, with the Fiduciary Principles and Standards, ESS and Gender Policy.

³⁰ Only applicable to International Accredited Entities. In accordance with the Monitoring and Accountability Framework, a report on its actions carried out or planned to be carried out pursuant to Clause 18.02 of the Accreditation Master Agreement.

terms of monitoring as few missions were undertaken. Disruptions on the logistics and supply chain caused by Covid 19 pandemic resulted in increased costs and delayed procurements.

One of the positive impacts of COVID 19 pandemic has been the increased adoption to use digital solutions for implementation such social media platforms, TV, radio, SMS for information dissemination and, Zoom and Teams for meetings.

Please describe details of challenges encountered and corrective/mitigation measures taken.

Type of Challenges Encountered	Details of the challenges encountered
Field Activities	Field monitoring missions were in some cases halted or delayed, constructions of boreholes and irrigation schemes were delayed as a result. Workshops were especially affected as they were regarded as high risk in terms of transmission of COVID.
Supply Chain	Delivery of procured items 20 automatic weather stations took longer due to disruptions in the supply chain of component parts.
Liquidity and Solvency	Not Applicable
Project Costs	The project costs were affected as additional resources were now required to support telecommuting of staff during a lockdown to enhance delivery.
Financing and Concessionality	Not Applicable
Others	Not Applicable

Please describe if any support is required from the GCF to address the COVID-19 impact on your project/programme.

No. The project is guided by the guidelines issued by the Ministry of Health. The project could further partner with MOH to provide COVID talks to farmers.