FINAL PROJECT COMPLETION REPORT FOR PUBLIC SECTOR OPERATIONS (PCR)

AFRICAN DEVELOPMENT BANK GROUP

I BASIC DATA

A Report data

Report date	Date of report:	27th AUGUST, 2023	
	Mission date *(if field mission)*	From: 12th JULY, 2023	To: 23rd JULY, 2023

B Responsible Bank staff

Positions	At approval	At completion
Regional Director	Ebrima FAAL,	*Leila Mokaddem*
Country Manager	Freddie KWESIGA	*Durowoju, Raubil Olaniyi*
Sector Director	Chiji OJUKWU	Martin FREGENE
Task Manager	LEWIS BANGWE	Lewis BANGWE
Alternate Task Manager	Yappy Silungwe	Yappy Silungwe
PCR Team Leader		PHILIP BOAHEN
PCR Team Members		**Mr. Lewis M. Bangwe,** Senior Agricultural Officer, COZM **Mr. Yappy SILUNGWE,** Senior Irrigation Engineer, AHAI6 **Mr. Earnest Mdaniso Sakala,** Senior Private Sector and Investment officer, COZM **Ms Aida Bakayoko,** Consultant, AHAI.1 **Ms Hazel Mando,** Senior Procurement Specialist, COZM **Mr. Godfrey Kaijage,** Principal Financial Mgt Specialist, RDGS.4 **Mr Kalaluka Munyinda**, Principal Disbursement Officer, FIFC3 **Ms Salmina Merique,** Consultant Gender, AHGC.1. **Ms Edith Kahubire,** Principal Social Safeguards Officer, RDGS.0 **Mr. Constant Adeniyi,** Consultant (Climate Change), PECG.2
Peer Reviewed		**Sebastian Okeke - Consultant**

C Project data

Project name: GAFSP AGRICULTURE PRODUCTIVITY AND MARKET ENHANCEMENT PROJECT (APMEM) & MITIGATING THE IMPACT OF COVID 19 ON HOUSEHOLD FOOD SECURITY (C19 HFS)		
Project code: P-ZM-AA0-019 P-ZM-AA0-038	**Instrument number(s):** 5570155000501 5570155000951	
Project type: INVESTMENT (stand alone)	**Sector: AGRICULTURE**	
Country: ZAMBIA	**Environmental categorization (1-3): 2**	
Processing milestones – Bank approved financing only **(add/delete rows depending on the number of financing sources)**	**Key Events (Bank approved financing only)**	**Disbursement and closing dates (Bank approved financing only)**
Financing source/ instrument1: GAFSP TRUST FUND	**Financing source/ instrument1:**	**Financing source/ instrument 1:**
Date approved: 26th March, 2014	Cancelled amounts: None	Original disbursement deadline: 31st December, 2018
Date signed: 10th June, 2014	Supplementary financing: Yes	Original closing date: 30th June, 2019
Date of entry into force: 10th June, 2014	Restructuring (*specify date & amount involved*): None	Revised (*if applicable*) disbursement deadline: 31st December, 2022
Date effective for 1st disbursement: 20th October, 2014	Extensions (*specify dates*): from 30th June 2020 to 30th March 2021; from 30th March 2021 to 31st March 2022 and finally to 30th June, 2023	Revised (if applicable) closing date: 30th June, 2023
Date of actual 1st disbursement: 12th November, 2014		
Financing source/ instrument2: REPUBLIC OF ZAMBIA GOVERNMENT COUNTER PART FUNDS	**Financing source/ instrument2: REPUBLIC OF ZAMBIA GOVERNMENT COUNTER PART FUNDS**	**Financing source/ instrument2: REPUBLIC OF ZAMBIA GOVERNMENT COUNTER PART FUNDS**
Date approved: 26th March, 2014	Cancelled amounts: 0	Original disbursement deadline: 31st December, 2018
Date signed: 10th June, 2014	Supplementary financing:0	Original closing date: 30th June, 2020
Date of entry into force: 10th June, 2014	Restructuring (specify date & amount involved): 0	Revised (*if applicable*) disbursement deadline: 31st December, 2022
Date effective for 1st disbursement: 20th October 2014	Extensions (specify dates): N/A from 30th June 2020 to 30th March 2021; from 30th March 2021 to 31st March 2022 and finally to 30th June, 2023	Revised (if applicable) closing date: 30th June, 2023

Financing source/ instrument 3- ZAMBIA GAFSP C19-HFS	**Financing source/ instrument 3: ZAMBIA GAFSP C19-HFS**		**Financing source/ instrument 3: ZAMBIA GAFSP C19-HFS**	
Date approved: 5th March 2021	Cancelled amounts: 0		Original disbursement deadline: 30th June, 2023	
Date signed: 18th November, 2021	Supplementary financing: N/A		Original closing date: 30.06.2021	
Date of entry into force: 18th November, 2021	Restructuring (specify date & amount involved): N/A		Revised (if applicable) disbursement deadline:	
Date effective for 1st disbursement: 3rd May, 2022	Extensions (specify dates): N/A		Revised (if applicable) closing date: 30th June, 2023	
Date of actual 1st disbursement: 5th May, 2022				
Financing source/instrument (add/delete rows depending on the number of financing sources):	**Committed amount (UA):**	**Percentage committed (%):**	**Uncommitted amount (UA):**	Percentage uncommitted (%):
Financing source/ instrument1:	30,727,080.29	99%	392,919.71	1.26%
Financing source/ instrument2:	262,650	18.76%	1,137,350	81.24%
Government:	696.072	19.3%	2,903,928	80.6%
Other (eg. co-financiers). *Add rows as needed.*				
TOTAL	**30,991.36**		**4,435.71**	
Co-financiers and other external partners:				
Executing and implementing agency (ies): MINISTRY OF AGRICULTURE AND MINISTRY OF FISHERIES AND LIVESTOCK				

D Management review and comments

Report reviewed by	**Name**	**Date reviewed**	**Comments**
Country Manager	*Durowoju, Raubil Olaniyi*		
Sector Manager	Vij Neeraj		
Regional Director (as chair of Country Team)	*Leila Mokaddem*		
Sector Director	Martin Fregene		

II Project performance assessment

A Relevance

1. Relevance of project development objective

Rating*	**Narrative assessment** *(max 250 words)*
3	In 2013, the Government of Zambia announced reforms to agricultural subsidies amounting to 2.0% of GDP in 2014. Although the subsidies were benefitting one million farmers, they were not adequately targeted towards the most vulnerable. Furthermore, the cost of the Farmer Input

	Support Program and the excessive perennial purchases by the Food Reserve Agency led to excessive expenditures on their annual budgets. Although a cost sharing arrangement with farmers was reintroduced, it was insufficient and cost overruns remain a challenge. Since the peak of copper prices in 2011 and with the rising fiscal deficits, the economy slowed down. Zambia then faced some of its worst economic headwinds with copper prices at their lowest since 2003, a significant energy crisis resulting in 10-14 hours of load shedding a day, and a fiscal deficit of more than 8% in 2014. Growth was largely subdued by the energy crisis. The 2014 agriculture season saw a decline in maize output by 21%, leading to a slowdown in growth in the agriculture sector. It was in the light of these developments that the Agriculture Productivity and Market Enhancement Project (APMEP) was introduced followed in 2021 by the Covid 19 – Household Food Security (C 19-HFS) Project. In Zambia Agriculture plays a key role of supporting industries by the production of the required raw materials, producing exportable agricultural goods, generating employment particularly in rural areas, improving rural incomes as well as providing food stuffs essential for the sustenance of acceptable nutrition standards and levels. APMEP's development objectives are to contribute to economic growth and poverty reduction by enhancing food, income and nutrition security, among participating households. APMEP objectives therefore, showed a clear link with the Zambia's main development objectives, hence the project development objectives were very relevant to the country's agricultural development plans. APMEP's objectives of contributing to the country's economic development by stimulating higher smallholder agricultural productivity and production as well as job creation through the development of agriculture value chains were and are still relevant to the country's economic development ideas. The Project concentrated on developing irrigated agriculture which was expected to assist the country in increasing production and productivity through all year round farming instead of depending on rainfed agriculture alone. The relevance of the project objectives was indeed shown in its inclusion of activities that will facilitate job creation and employment opportunities in the country.

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

2. Relevance of project design

Rating*	Narrative assessment *(max 250 words)*
3	APMEP's interventions were designed to stimulate household food, nutrition and income security which would positively impact on the high rural poverty levels which was at a staggering 60% in Zambia at the conception of the project.

	The project design was aligned to the National Agricultural Investment Programme (NAIP) (2014-2018); the First National Agricultural Policy (FNAP); the Sixth National Development Plan (SNDP), and the Vision 2030. These policies are aimed at: (i) acceleration of infrastructure development; (ii) economic diversification; and, (iii) rural investments to stimulate economic growth and reduce rural poverty in an effort to spearhead the country's vision of becoming a middle income country by 2030. The SNDP set out agriculture, livestock and fisheries as key priority growth sectors that contribute toward achieving the goal of the SNDP – which were (a) sustained economic growth, (b) poverty reduction and (c) creation of employment. By constructing irrigation schemes and setting up agro procesing and value addition centres, the project would be contributing to infrastructure development, while adoption of adaptation measures such as crop diversification, aquaculture, and livestock production opened up opportunities for communities to adopt alternative livelihoods that contribute to increase in resilience to climate shocks. During the design process, Key Performance Indicators (KPIs) were well articulated and specified in the Results Based Logical Framework (RBLF) making implementation processes to be seamless. The design of APMEP was relevant and appropriate in addressing Zambian smallholder farmers' needs and challenges as it focused on promoting food, nutrition, income security and value addition along the commodity chains. It was assumed at the design stage that implementation of the project through government structures would be efficient but this assumption had a challenge as evidenced by the low project performance at Mid-Term Review (MTR). Major reasons for the poor implementation progress of the Project at Mid-Term include: bureaucratic bottlenecks, lengthy procurement procedures and inadequate participation by the Ministry of Agriculture entities at various levels of implementation and inadequate capacity. The Project design was also in alignment with Pillar 1 of the AfDB Country Strategy Paper for Zambia (CSP 2011-2015), which focused on supporting economic diversification through infrastructure development and productive sectors. This was expected to be achieved by fostering inclusive growth and transitioning to green growth, as well as contributing to infrastructural development, agriculture and food security.

3. Lessons learned related to relevance

Key issues *(max 5, add rows as needed)*	**Lessons learned**	**Target audience**
1. The Project strategically focused	1. It was a judgement error to have designed the project activities around irrigated agriculture to the detriment of rainfed agriculture and once the irrigation facilities could not be completed, many of the	AfDB & GRZ

mainly on irrigated agriculture	expected outputs and outcomes could not be achieved. Rainfed agriculture activities should have been implemented along with the irrigation farming activities/facilities.	
2. Proper feasibility studies to inform Project design	2. Proper and rigorous feasibility studies would have been conducted to feed into Project preparation and appraisal to enable realistic estimates of activities and budgeting to avoid budget misalignment.	AfDB & GRZ
3. Project approach was too multidisciplinary.	3. The project approach was too multidisciplinary with many sub components/value chains etc. Even though it could have been an advantage but became a distraction as the activities were widely spread on the ground and could not be properly managed and executed resulting in the Project not making the desired impact. The value chain approach seems to produce more effects but when too diversified, unforeseen issues arise during project implementation that may not be easily addressed.	AfDB &GRZ
4. Implementation of project activities using Government/Ministries' Staff.	4. The use of staff of the Ministry of Agriculture and Ministry of Livestock and Fisheries to implement project activities hindered timely execution of programmed project activities. Ministry staff members have other responsibilities which are their primary focus, and therefore, inadequate attention and time are allocated to key project activities. Many of them do not have the required capacities too.	AfDB &GRZ
5. Unrealistic Targets	5. The expected outputs from the various activities were quite ambitious. There is need to be more realistic when setting indicators and allocating budgets. A number of activities had to be dropped/re-prioritized due to inadequate funding.	AfDB &GRZ
6. Procurement issues and bureaucracy	6.Government bureaucracy led to procurement delays which impacted on the project very specifically; systemic changes to the procurement processes in government procurement procedures should be addressed as this continues to be an issue of concern. Also there are some goods such as fingerlings/chickens, goats etc which cannot be subjected to the same procurement procedures as other goods. It is important to put in place another procurement procedure for such goods.	AfDB &GRZ

B Effectiveness

1. Progress towards the project's development objective (project purpose)

Comments
Provide a brief description of the Project (components) and the context in which it was designed and implemented. State the project development objective (usually the project purpose as set out in the RLF) and assess progress. Unanticipated outcomes should also be accounted for, as well as specific reference of gender equality in the project . The consistency of the assumptions that link the different levels of the results chain in the RLFshould also be considered. Indicative max length: 400 words.

Project Development Objective

The purpose of the project was to contribute to economic growth and poverty reduction by ensuring income, food and nutrition security, among beneficiaries. Effectiveness will measures the progress made regarding objectives, outputs and outcomes using a Progress Towards Results Matrix; each indicator at objective, output and outcome levels will be assessed giving an appraisal of their achievement.

Component 1: Agriculture Production and Productivity

Sub-component 1.1: Irrigation Development

Primary aim of the sub-component was to establish 10 small-scale irrigation systems covering an area of 3,337 ha to impro irrigation infrastructure and management practices in the selected districts. This could not be achieved due to cost involveme Hence, following a redesign, a centre pivot was installed in Shikabeta irrigation scheme in the Rufusa district covering only 1 ha. However, the Shikabeta scheme has not become operational due to absence of power. The other 9 schemes were not achiev Procurement delays led to the reallocation of the resources meant for the remaining 9 irrigation structures. A redesign of scheme was embarked upon by the Project which took a lengthy time and procurement issues did not help the situation.

Although the initial goal of implementing irrigation systems across all schemes was not achieved, a total land area of ab 3,344 ha was cleared in all schemes representing 100.2% achievement. Some of the cleared lands have been converted into ra fed farms following the adoption of the Technologies for African Agriculture Transformation (TAAT) model. Due to the n completion of the irrigation schemes, the Scheme implemented rain-fed agriculture in which about 77.1% of the members w involved. The males were found to be more involved in rain fed farming (86.1%) than the females (50%). There is the need more gender sensitization and youth involvement in the irrigation farming activities. Very little training was provided to beneficiaries and this resulted in the beneficiaries not knowing how to manipulate and use the equipment(s) provided or even effect minimum repairs and maintenance.

Sub-component 1.2: Aquaculture Development

The Project was to enhance the livelihoods of about 16,000 beneficiaries through the use of 280 fish pens and 340 fish cages.F pens were successfully achieved but only 170 out of 340 fish cages were provided (50%). High cost of cages led to the reduct in the number of cages procured and installed. About 90% of the beneficiaries expressed their dissatisfaction with the cages a pens which they said were unsuitable for their Cooperative societies. The fishnets provided by the Project were said to be frag and vulnerable to shark and crocodile attacks. The Project was to deliver fingerlings and fish feed to the beneficiaries. Howev there was no coordination and synchronization in the delivery of both activities such that the feed stuff supplied got expi before the fingerlings were provided. Fingerlings were not delivered during the optimal breeding season (October-Novemb and this caused disruption in the breeding cycle of the fish and reduction in yield. The fish feed provided in most cases were in the right combination resulting in low weight of fishes. Despite low production of fish, average earning from fish product under the Project increased from ZMW 60,833.33 to ZMW 64,862.50. Adequate training was not provided under this s component.

Sub-component 1.3: Crop Diversification and Intensification

The Project demonstrated its effectiveness in promoting crop intensification through its implementation of Conservat Agriculture (CA) techniques.The Project exceeded its initial target of 32,730 ha under the CA technique as it achieved impress 40,548 ha (124%). The Project also facilitated the adoption of mechanization techniques by the Cooperatives. An area of 34,3 ha (50%) of land out of a target of 69,000 ha was put under mechanization. This achievement shows the Project's effectiven in supporting the agricultural sector and ensuring sustainable farming practices. However, some of these indices decreased time went on due to breakdown of tractors which durability was in question.

During the initial period of the Project, there was a higher level of production which decreased in subsequent years due to rain patterns, diseases, inadequate inputs supply etc. The Project supported beneficiaries with 4,500 e-vouchers for accessing inp thereby, facilitating the cultivation of about 2,250 ha of land. The Project procured and installed a cold room facility for ba and breeder seed at the Seed Control and Certification Institute (SCCI). Crops such as rice, iron-rich beans, orange maize w

supplied to farmers who participated in conservation farming and nutrition. Project also secured seeds for rain fed farming 2018 (limited to 5 schemes), 2019 and 2020 (across all schemes). The Project distributed 146,134 bags of 50 kg amounting 7,306.7 metric tons of seeds in 2020 to farmers against a target of 13,500 metric tons. Project did not provide inputs for farm during the 2021/2022 season as they were encouraged to procure their inputs from the profits from previous seasons.

One of the biggest impact of the Project is the effectiveness in executing the Rice project in Chitambo. Rice was first introduc in 2016/2017 and became the biggest plantation in Zambia in 2020/2021. The incomes resulting from sales of rice produ helped many farmers to improve their livelihood including buying assets such as bicycles, motor cycles, solar panels and some cases, pick-up vehicles.

Sub-component 1.4: Livestock Development

Activities in this sub-component focused on empowering 180 women groups (3,600 women), 30 youth groups (600 youths) Non-Governmental Organization, Heifer International was engaged to supervise the livestock pass-on activity. About 80 pa on livestock groups were mobilized (71 women and 9 youth groups). There is gender inequality in the implementation of pass-on scheme, 36% of the beneficiaries are males with 21.8% female beneficiaries. A higher percent of youths (46.7%) w involved in the program with lower number (25.7%) of adult participants. Six livestock centers were established across the districts and 59.6% of the participants received training in livestock development and management; males 68.8%, females 40 More youths participated in the training (66.7%) than adults (57.9%). The training focused on enhancing quality of ratio administering medications, artificial insemination, castration etc.

The capacity for cattle ownership increased from 25 heads of cattle in 2020 to 42 heads of cattle in 2022. There was also margi increase in incomes from livestock production from ZMW 5,666.67 in 2020 to ZMW 5,983.33 in 2022. The beneficiar testified to the effectiveness of the pass-on scheme. Milk yield increased during both the dry and wet seasons from 2020 to 20 and the average price and revenue earned per litre of milk demonstrated an upward trend showing that the future of the indus is bright.

Artificial insemination kits (30) and veterinary sets (88) and motorized folder equipment (20) were provided by the Proj further enhancing beneficiaries productivity. The Project also distributed about 600kg of pasture and fodder bank plant materials in Chongwe and Gwembe Districts. The Project also supported management of village/local chickens, provision stable thermal Newcastle vaccine and embarked on vaccination campaigns through community animal health workers a community livestock assistants. As a result, 65 groups on poultry keeping was established, poultry pass-on program distribu 5,000 birds. The pass-on program has benefitted over 1,014 families distributing about 4,550 chikens in Serenje and Chitam

Component 2: Value Chain Development and Market Linkages

Sub-component 2.1: Agro-processing Infrastructure Development

- Establishment of 2 Small-scale maize and feed mills; 2 Small-scale cassava mills

Due to inadequate funding, the mills were dropped and Government opted for the establishment of a medium-scale cassa processing mill and channeled funds for the small-scale mills to the medium-scale cassava processing plant. Paucity of fu led to the non completion and making the Plant become operational. Government has assumed responsibility for its complet and bringing it into operation.

- Agriculture Service Centers

Six small-scale agriculture service centers (agro-markets) were to be established; revamping of 12 existing road mark rehabilitation of 50 kms of rural feeder roads.

Resource constraint was responsible for the non execution of this activity.

- Community Level-Processing Equipment

Acquisition of value-addition equipment, Oil Expeller, Groundnut Roaster, Rice Polishing Machine, Vegetable Solar Drier for women and youth groups at the community level was the main objective of this objective. The Project successfully procu 40 honey presses, 70 solar dryers which were effectively distributed to the beneficiaries. The success rate in this activity 100%. Only 23.8% of the beneficiaries found the value-addition equipment beneficial. A higher rate of benefit was repor amongst the males, 27.5% with females recording 18.9%. The youth category reported a higher rate of benefit (31.6%) agai the adult population (22.6%). Rice polishing machines provided the most benefit according to the beneficiaries (64.7%). Wom were the most beneficiaries. Groundnut roaster recorded the lowest number of benefitting members with only 5.9% of members benefiting from this activity.

- Market Linkages

Matching grants were to be extended to 60 Agro-dealers. This could not be actualized as funds earmarked were channeled other activities.

Component 3: Institutional Strengthening

Sub-component 3.1: Nutrition Security and Capacity Building

- Nutrition education and outreach to the participating communities

The Project achieved a 112% training of 653 female headed households out of a target of 550 and 7,658 male headed household out of a target of 1,210.

- Orange-fleshed sweet potatoe vines and other inputs

The Project targeted to provide orange-fleshed sweet potatoe vines to a total of 13,000 women and 2,000 men across th Project districts. Only 400 bundles of the vines were distributed before it was abandoned due to unsustainable cost. In additi the Project successfully delivered a combined total of 3,284 kg of orange maize, 6,568 kg of 50 kg D compound and 6,568 of 50 kg Urea fertilizer to all 6 districts. The program allocated 1,735 kg of iron bean seeds for multiplication to beneficiari mostly female beneficieries at both individual and group levels. Various types of vegetable seeds and fruit seedlings were a provided along with chemicals. The provisions were directed towards the 4 main schools and 2 child feeding centers within ea district.

- Infants (6-24 months) on feeding programme

The Project facilitated rehabilitation of malnourished children and child feeding practices. It also implemented distribution food rations such as soya beans, cowpeas, groundnuts, milk etc. Cooking utensils and anthropometric measuring equipm were also distributed to the child feeding centers. Training and equipping of 120 members of the community was undertaken identify and manage cases of undernourished children. About 60 bicycles were given to a fraction of these volunteers as a mea of transportation. About 1,356 malnourished children (aged 6-24 months) were enrolled across the 12 facilities represent 63% of the set target of 1,600 malnourished children. Record keeping in the facilities was poor.

Evaluation of the Project's component effectiveness showed satisfactory rating.

2. Outcome reporting

Outcome indicators (as per RLF; add more rows as needed)	**Baseline value** (Year) (A)	**Most recent value** (B)	**End target** (C) (expected value at project	**Progress towards target** (% realized)	**Narrative assessment** (indicative max length: 50 words per outcome)	**Core Sector Indicator** (Yes/No)

			completion)	[(B-A)/(C-A)]		
Outcome 1: Average crop yield (MT/ha). *Maize:* *Cassava:*	2.0 9.0	2.14 9.5 (CFS, 2022)	3.6 1.8 12.0		Genrally, the production and productivity of maize and cassava have been fluctuating over the last couple of years. Despite the project doing well by contributing to increased crop production, other factors especially rainfall patterns which the country continues to depend on heavily for crop production impacted on the results	
Outcome 2: Average livestock off-take per year (no)[1] *Goats:* *Poultry:*	2,000 100,000	9,368 (1,800) 37,472 (25,000)	3,900 **(4,100)** 250,000 (48,000)	228% 78%	The latest survey was the Livestock census which was done in 2018. On the ground and in the districts of operation, livestock production and offtake is showing indicators of increase particularly for poultry. The project also distributed 30 dairy cows	
Outcome 3: Primary prodts processed locally by women & men-%	10	7.2	30 (16)	41%	Rice produced in Chitambo particularly in the 2021/22 season was processed through community value addition equipment, this also includes sunflower, vegetables and some fruits processed through the oil expellers and solar dryers respectively. Cassava processing has also commenced at the mill	
Value of processed prodts by women & men (ZMW)	500	K33,000 US$ 1,738	2,000	1,650%	There is an exponential increase in processing of primary agriculture products due to the increase in the community value addition equipment	
Rating* (see IPR methodology)	**Narrative assessment**					

3. Output reporting

Output indicators (as specified in the RLF; add more rows as needed)	**Most recent value (A)**	**End target (B)** (expected value at project completion)	**Progress towards target** (% realized) (A/B)	**Narrative assessment** (indicative max length: 50 words per output)	**Core Sector Indicator** (Yes/No)
Output 1: Scheme area (project area) under irrigation (ha)	3,344	(3,337)	100.2%	The cleared areas of land in the schemes which were meant to be irrigation schemes have been converted into rain fed plantations. A total of 136 ha is expected to be put under irrigation as soon as power has been installed at Shikabeta.	
Output 2: Beneficiaries (# farmers) [At least 45% women-all activities]	11,360	14,565	78%	This is the cumuative number of beneficiaries of rain-fed crop cultivation from 2018 to 2022 in all the 10 schemes including Water Users' Association members, persons employed at the schemes	

[1] These figures are estimates based on extrapolation from what was obtained during the Mid-Term Review. The actual figures are being awaited from the National Information Centre – Ministry of Fisheries and Livestock who are yet to compute the off-take figures by district. The Centre has a few years to work on.

Output 3: No of scheme management entities (WUAs in this case)	10	10	100%	All 10 Water User Associations are registered as well as companies with boards of management. These are currently managing the rain fed crop establishment from 2019/2020 season	
Output 3: Fish pens (no.)	280	280	100%	The pens were fully assembled and installed. These were all stocked at 50% stocking rate in Sinazongwe, Gwembe and Serenje in 2021; the harvest of fish commenced in 2021 and has continued with a total of 101 farmers accessing loans to continue fish production from CEEC	
Output 3: Fish cages (no.)	170	340 (170)	100%	The cages were fully assembled and installed. These were all stocked at 50% stocking rate in Sinazongwe, Gwembe and Serenje in 2021; the harvest of fish commenced in 2021 and has continued since with a total of 101 farmers accessing loans to continue fish production from CEEC. Due to the high cost of procuring the cages, the target of cages was reduced	
Output 3: Fish production (MT/year) [At least 45% women-all activities]	117.54	400 (260)	45%	The target of 400 metric tonnes was reduced to 260 at mid term. This is production from farmers first supported with fingerlings in Chitambo/Serenje and Rufunsa in 2017 and 2018, who have had more cycles of fish since then.	
Area under conservation agriculture (ha)	40,548.2	32,730	124%	The total area under mechanization for the period is 40,548.2 ha. The demand for mechanization has increased exponentially in most sites	
Output 3: Seed supplied (pockets)	149,134	13,500	265%	The project last procured inputs for farmers during the 2020/21 season The cumulative seeds distributed to farmers to date is now **149, 134** packets.	
Output 3: Area under mechanized agriculture (ha) [At least 45% women-all activities]	34,390	69,000 (45% women)	49.8%	This is the cumulative area put under mechanized set procured by the project. This includes area mechanized using the conservation agriculture (CA) sets and other mechanization sets distributed to the irrigation scheme through the project.	
Output 3: Livestock pass-on scheme women/youth groups (No) *Women;* *Men:*	60 10	48 4	125% 250%	The project implemented a livestock (dairy cow pass-on scheme benefiting 180 women groups and 30 youth groups. Other achievements are the construction of six (6) Livestock service centres, procurement of 88 Vet Kits for the districts, procurement and distribution of 30 AI Kits, 20 motorized folder equipment. About 600 kg of pastures and fodder bank planting materials to beneficiaries in Chongwe and Gwembe districts. Goat distribution did not happen due to a number of difficulties	
Poultry keeping groups (No) Women (%) Youth (%)	65 79% 21%	120	54%	A total of 5,000 chickens were distributed originally; the pass on has continued with over 1014 families benefiting so far. The number of groups though fewer than planned has more people in the groups than was beyond the target.	
Output 3: Maize mills (no.)	2 (0)	0	-	This activity was discontinued as a number of maize mills were put by the government under another project	

Output 3: Cassava mills (no.)	1	2 (1)	100%	The cassava mill was completed in 2021 and handed over to government. It will be managed by jointly by the Chitambo cassava company and Industrial Development Corporation (IDC)	
Community level-processing equipment (no.) Honey presses Solar dryers	 40 70	 20 70	 261%	Also distributed apart from honey presses and solar dryers were 220 pieces of equipment and 67 sealing machines were distributed including oil expellers, rice polishers, incubators and peanut butter makers among others.	
Reduction in cassava and maize losses (%) [At least 45% women-all activities] Cassava Maize	 3% 8%	 4% 12%	 75% 67%	Agro processing using the established value addition centres in the community and at the medium scale, cassava mill is yet to commence operation.	
Output 3; Agriculture service centres (no.)	0	6 (0)	-	It was agreed to drop this activity due to insufficient budget to cover the cost of construction. However, the drawings were completed by a consultant	
Output 3; Roadside markets (no.)		327 (0)	-	This activity was dropped due to insufficient funds	
Output 3; Length (km) of rural feeder roads rehabilitated	50 (0)	0	-	This activity was dropped due to insufficient funds	
Output 3; Agro-dealers supported (no.) [At least 45% women-all activities]	 60 (0)	 0	-	This activity was dropped due to insufficient funds	
Household trained in nutrition activities (No) FHH MHH	 653 7,658	 550 1,210	 112% 633%	More than 22,000 farmers have been trained in the cultivation of crops such as orange maize, iron rich beans, vegetables etc. The majority of which are male headed households	
Infants (6-24 months) on feeding programme (No)	1,600	1,356	85%	These are infants that were enrolled to the 12 Infant feeding centres established by the project in all the 6 districts of operation in 2019 and 2020 and recently in 2023 (348). Children suffering malnutrition underwent rehabilitation	
Farmers trained, based on needs assessment (No),	16,800 (4,100)	22,549	258%	This is the total cumulative number of mothers and guardians of infants partictipating in cooking demonstrations, farmers who received nutrition rich	

At least 50% women				crops (e.g orange maize), pupils from schools where Nutrition was taught and trainees in Nutrition	
MAL GAFSP Project Technical Team supported (No)	1	1	100%	This has been on going and will continue up to the close of the project	
M&E system established & operational (No)	1	1	100%	The project has developed a system where data is generated, compiled and used for decision making. However, the system feeds into the general ministry challeges such as inadequate extension staff, inadequate transport, internet access etc. continue to impede on M&E activities and functions.	

Rating* (see IPR methodology)	**Narrative assessment**
3	Out of a total of 26 output indicators which are in the project's performance framework, Four (4) were dropped as funds were channeled to other activities leaving 22 indicators. Of the 22 indicators, 15 achieved the set targets while the remaining seven (7) were not completely achieved by the close of the project in June, 2023

4. Development Objective (DO) rating

DO rating (derived from updated IPR)*	**Narrative assessment** (indicative max length: 250 words
3	The outcomes achieved in terms of the project's development objective are satisfactory. Under the project's

5. Beneficiaries (add rows as needed)

Actual (A)	**Planned** (B)	**Progress towards target** (% realized) (A/B)	**% of women**	**Category** (eg. farmers, students)
75,618	75,000	100.8%	54%	Farmers

6. Gender equality

Assessment on the performance of gender equality in the operation (indicative max length: 250 words)
The project made deliberate efforts to target women in all the project activities (Components and sub components) and a good 54% (against the targeted 45%) of direct project beneficiaries are women. Even in activities that are traditionally viewed as men's such as aquaculture, a good number of women have been engaged. Through project efforts some of the impediments that especially affect women including access to inputs, extension services and marketing etc. These were eased and as a result, a good number of women benefited from project activities. A good example is Rice cultivation in Chitambo. By procuring and distributing mechanization sets, women who could have otherwise stayed back from participating in large scale cultivation for instance, were able to do so due to access to labour saving technologies like tractors, rippers, boom sprayers etc. Also community level processing equipment are helping women reduce on the time and efforts made to process sun flower, vegetables, honey, rice etc. In terms of skilled jobs, there were very few of these that women got.

7. Unanticipated or additional outcomes (add rows as needed)

Description	Type (eg. gender, climate change, social, other)	Positive or negative	Impact on project (High, Medium, Low)
1. Income from having access to mechanization by individual members and hence, sale of Rice in Chitambo district	Gender	Positive	High
2. Acquisition of assets such as bicycles, motor cycles, radios building better houses etc	Social	Positive	High
3 Dropping of some activities led to the full impact of the Project not being realized as was envisaged during appraisal	Other (Cost/Budget)	Negative	High
4 Change of government and introduction of new procedures and staff in the PIU affected the implementation of the C19-HFS Project.	Social	Negative	High

8. Lessons learned related to effectiveness (add rows as needed)

Key issues (max 5, add rows as needed)	Lessons learned	Target audience
1. Insufficient budget for key activities	1. There was no proper and adequate feasibility studies conducted prior to the design of APMEP hence, the Project faced the challenge of insufficient budget for a number of activities including irrigation schemes, road side markets, road rehabilitation etc. Key assumptions about the costs of these activities did not hold during actual project implementation. As a result, a number of key activities were dropped. It is important therefore, for feasibility studies to be carried out before design and implementation of Projects.	GRZ & AfDB
2. The project structure had Subject matter specialists as the key implementors	2. The project had a number of sub components and depended heavily on the subject matter specialists (SMS) who are the experts during implementation. This left the project at the mercy of the experts on some matters which affected progress many times. In future, the direct implementors (the districts in this case) should have an upper hand in the implementation of the project activities.	
3. The Project Implementation Unit (PIU)	3. The use of Ministry staff to implement the Project at the initial stage led to delayed execution of the project activities and mismanagement due to lack of capacity. The engagement of proper PIU about two years after commencement of the Project made a big difference in Project. The Project which was not performing well during the early stages as the PIU was not in place, only began to pick up once the PIU was firmly put in place. Also after the deboarding of the PIU in March, 2022, the performance of the Project	

	which had picked up began to decline again. The PIU should be put in place early enough for sustained project performance	
4. Designs for Infrastructure and other activities	4. The designs for irrigation, Agriculture Business Centres (ABC) etc which were not in place at the onset of the project, delayed implementation to a very great extent as they have to be designed before work started. In future Projects, grants should not be signed until there is evidence that feasibility studies have been carried out especially if infrastructure like irrigation facilities etc are involved to avoid eating into project implementation time line.	

C Efficiency

1. Timeliness

Planned project duration – years (A) (as per PAR)	**Actual implementation time – years (B)** (from effectiveness for 1st disb.)	**Ratio of planned and actual implementation time (A/B)**	**Rating***
5.0	9.0	0.55	2

Narrative assessment (indicative max length: 250 words)

As is the case for many development projects, the implementation delays in this project were not unanticipated as the Project Implementation Unit (PIU) was not established at the onset. The APMEP is one of the projects under GAFSP implemented in Zambia and as such there were no prior project implementation framework in Zambia to draw lessons from. Initially, the Project was implemented by the Ministry of Agriculture and Ministry of Livestock, thus suffered the bureaucracy for which the Civil Service is noted. Frequent changes in the Ministries did not help matters regarding quick decision taking and approval processes. The project team then approached project implementation on a 'learning by doing" basis which led to low delivery. It took longer time than expected for the project team to be fully mobilized and a PIU put in place. It was obvious that those who implemented the Project from the starting point lacked the capacity to deliver on the objectives. The situation would have been more appropriate if all the project team members were assembled the same time as a PIU in one central location from the beginning, to allow for better dialogue and coordination. The smooth-implementation of project also depends on conducive work environment and free-hand given to those implementing the project activities by supervising entities. However, government actions did not suggest such.

The delivery model of project activities through engagement of Government Ministries needs to be studied and examined carefully. The delay in using part of funds from the C19-HFS Project resources to operationalize the Cassava milling factory because of over micro-managing by the supervising Ministry led to GAFSP shying away from the utilization of the funds at the twilight of the Projects. The Project had two major 'No cost extensions' and one other extension as a result of 'merger' with a new Covid 19 Project with additional funds. The non constitution of a proper PIU at the early stage of Project implementation retarded activities execution. This resulted in loss of valuable time and non synchronization of planned activities. Procurement delays were major albatross in the timing and implementation of project activities leading to cost and time over-runs.

2. Resource use efficiency

Median % physical implementation of RLF outputs	**Commitment rate (%) (B)** (See table 1.C – Total commitment rate of all financiers)	**Ratio of the median percentage physical implementation and commitment rate (A/B)**	**Rating***

financed by all financiers (A) (see II.B.3)			
95	86	1.1	3
Narrative assessment (indicative max length: 250 words)			
Project's progress in achieving the end-of-project targets focusing on qualitative and quantitative outputs and outcomes in relation to inputs use is the focus of resource use efficiency. The project implementation efficiency is one area where this project could have done better. Despite the project being extended a number of times, implementation of activities commenced rather late for this project and even when the project commenced, the procurement processes tended to take too long, hampering efficient use of resources. Even with this, the project managed to deliver and to achieve on almost all major outputs within the period of implementation which is commendable. Had it not been for the bureaucracy of Government Ministries used in the implementation of the Project at the initial stage, inadequate capacity and procurement challenges, the Project would have done better in terms of productivity and market enhancement.			

3. Cost benefit analysis

Economic Rate of Return (at appraisal) (A)	**Updated Economic Rate of Return (at completion) (B)**	**Ratio of the Economic Rate of Return at completion and at appraisal (B/A)**	**Rating***
26%	27%	1.03	3
	Narrative assessment (indicative max length: 250 words)		
	The Cost-Benefit analysis showed that the Economic Rate of Return (EIRR) at completion compared favourably with the value at appraisal. However, the dropping of major activities planned at appraisal including the non completion of the irrigation systems as well as subsidy regimes from the Government of the Republic of Zambia affected the EIRR calculation at completion.		

4. Implementation Progress (IP)

IP Rating (derived from updated IPR) *	**Narrative comments (commenting specifically on those IP items that were rated Unsatisfactory or Highly Unsatisfactory, as per last IPR).** (indicative max length: 500 words)
3	None

5. Lessons learned related to efficiency

Key issues (max 5, add rows as needed)	**Lessons learned**	**Target audience**
1. The non constitution of the Project Implementation Unit (PIU) from the start-up of the Project.	1. The PIU was put in place about a year after the commencement of project activities using Ministry staff who do not have the requisite experience and capacity to implement project activities. This resulted in cost and time overruns.	GRZ
2. Unavailability of Feasibility Studies of especially the irrigation facilities and other infrastructure including roads.	The absence of feasibility studies led to the delay in commencing project activities implementation as it has to wait for the design and cost elements of the irrigation facilities and rural roads etc to be obtained before commencement of implementation of project activities. This in essence led to the dropping of some activities as funds were not budgetted	GAFSP, AfDB, GRZ

	to implement them or there was under-budgeting.	
3. Procurement delays at almost all stages.	3. Procurement of certain goods and services were problematic. Goods such as fingerlings, day-old chicks, goats etc were difficult to procure as their procedure could not be found in the manual. Specifically, the processing of some critical goods was unreasonably time-consuming, leading to difficult procurements.	AfDB, GRZ
4.Government Bureacracy	4. Use of Government Ministries in project implementation brought in a lot of bureaucracy that approval processes became too long and inefficient for effective project activities implementation.	GRZ

D Sustainability

1. Financial sustainability

Rating*	Narrative assessment (indicative max length: 250 words)
3	A lot of investment has been made in building capacity to ensure sustainability of activities established under the project; the irrigation schemes were handed over to the established management entities and management boards put in place to manage them. These were also supported with start up material (inputs, equipment etc) and financial support to help them run on the own. Recognising that ordinary community members can not run these entities on their own, more competent community members and private sector players have been deliberately incorporated into these entities to help ensure their success. These either sit on the management boards or on the technical advisory committees. The relatively larger scale centers such as the cassava milling plant and the Shikabeta irrigation scheme have management teams put in place to manage them to ensure not only profitability but also financial sustainability.

2. Institutional sustainability and strengthening of capacities

Rating*	Narrative assessment (indicative max length: 250 words)
3	The project was careful to put management entities for all centres, facilities established in the communities where implementation is taking place. Community infrastructure such as agroprocessing centres, fish cages and pens, livestock service centres were handed over to community cooperative entities; while bigger entities were handed over to more established companies (irrigation schemes, cassava milling plant etc). These are being supported by the relevant government departments. Training and mentoring of the beneficiaries which have been in operation will be continued going forward.

3. Ownership and sustainability of partnerships

Rating*	Narrative assessment (indicative max length: 250 words)
3	Partnership for knowledge management and co-learning based on best practices has been instituted following the cooperation with strategic partners like SCRALA, World Vision, JICA, COMACO etc which has been awesome; and it has been agreed that ownership of the projects by the beneficiaries will be enhanced by the continued partnership with these Organizations and with local traditional and political leadership, community groups and community members who have also taken activities being implemented in their communities as their own. The contribution of land, labour and materials for the establishment and continuation of the irrigation schemes, agroprocessing centres, infant feeding centres and others is evidence of the continuation of the Project with hand-holding by the Partners. The continual involvement in activities beyond project support has been commendable. As GAFSP and AfDB are leaving other strategic partners will continue to provide guidance and support.

4. Environmental and social sustainability

Rating*	Narrative assessment (indicative max length: 250 words)
3	APMEP is classified as Category 2 Project, implying that the negative environmental and social impacts were localized, minimal, short term, manageable, reversible and are mitigated during the operation stage. Over 19 Environmental Impact Briefs was conducted and approved for Lusiwasi, Mulembo, Saasa, Mazembe, Luombwa, Shikabeta, Chabbobboma, Siatwinda, Buleya Malima and Namafulo Irrigation schemes. Others were Lusiwasi, Chipepo, Chiyabi Fish Cages and the cassava milling plant at Chitambo. Zambia Environmental Management Agency has since approved all the Environmental briefs for all the Irrigation and Aquaculture sites under the project, and these documents are published on the bank website. A Strategic Environmental and Social Assessment (SESA), was also approved. The project completed the environmental and social compliance audit report in the second quarter of 2022, and was submitted to the bank for clearance. The purpose of Environmental and Social Compliance Audit report was to assess the level of adherence of the APMEP to Environmental and Social Safeguards of the AfDB and the Zambia Environmental Management Agency (ZEMA) conditions for approved EPBs, and ESMPs. During implementation, the project areas experienced the effects of climate change including floods and semi drought. A number of activities such as conservation agriculture have contributed to building resilience against these. APMEP managed to produce and disclosed the Grievance Redress Mechanism in all the six districts. A Grievance Redress Mechanism report has been submitted to the Bank for clearance. APMEP has continued to monitor environmental management, occupation and health safety, land and employees conditions, stakeholder consultation and HIV/AIDS in all the six districts. The implementation of the ESMP is still in place, and has been used to monitor all environmental and social activities.

5. Lessons learned related to sustainability

Key issues (max 5, add rows as needed)	Lessons learned	Target audience

1. The pass-on scheme initiative	1. The pass-on scheme initiative implemented by the Project is a veritable tool for sustainability and has proved to be a promising model that operates under sustainable principles. The beneficiaries who received poultry and dairy cattle will continue to pass them on to others. Those on the queue will not give up until the animals would have been passed-on to them, and the results have been impressive. The implementation has been a great success and a demonstration of the diligent adherence to the principles of sustainability by the beneficiaries.	GRZ/AfDB
2. Establishment of Chitambo Cassava Mill (CCM)	2. The establishment of the CCM project is set to become a highly profitable endeavour for cassava growers. Its well-defined objectives and potential to generate ZMW 75,180,000 in revenue in the first year and ZMW 150,360,000 in the fifth year makes it a vital market for cassava farmers not only in Chitambo but throughout the adjoining districts. Not only will this project provide a much-needed market for cassava farmers in Chitambo and other districts, but it will also lead to significant growth in cassava production and boost economic activity in Zambia. The seamless operation of the CCM project will play a vital role in the sustainability of the Project, development of the agricultural sector and contribute to the overall economic growth of the region.	GRZ
3. Mobilization and sensitization of Groups such as the Water Users' Associations, Cooperatives, Millers' Association etc	3. There is the need for formation of Groups on a continuing basis to carry out activities as cooperatives.	GRZ/AfDB
4. Capacity Building	4. Continuous capacity building and training of the Groups on management issues, cooperative development, sense of ownership, community cooperation, technical issues, management of public infrastructure/equipment and facilities management.	GRZ/AfDB
5.Sense of Ownership.	5. It is important to inculcate in the beneficiaries, a sense of ownership of the Project. They should be made to understand that the Project belongs to them and not to the financiers or supervisors.	GRZ/AfDB

III Performance of stakeholders

1. Bank performance

Rating*	Narrative assessment by the Borrower on the Bank's performance, as well as any other aspects of the project (both quantitative and qualitative). See guidance note on issues to cover. (indicative max length: 250 words)
3	Generally the Bank could be said to have performed well in all aspects as a supervising entity. The Bank provided the needed guidance and necessary backstopping to both Government, PIU and stakeholders. Any lacuna that existed stemmed from the lack of capacity of the Project's Procurement officers and use of Ministry staff in the initial implementation of the Project. The delays that emanated from procurement of goods and services resulted in inability of disbursement of funds to contractors and suppliers by the Bank in time. Also some of the bottlenecks experienced in the implementation of project activities implementation could have been eliminated much earlier if there was sufficient supervision and constant follow up on project implementation activities. Response to challenges by the Bank were very reactive and not proactive and came late on many occasions.
	Comments to be inserted by the Bank on its own performance (both quantitative and qualitative). See guidance note on issues to cover. (indicative max length: 250 words)
	The Bank's performance was highly satisfactory. The project's objective to contribute to economic growth and poverty reduction by ensuring food, income, and nutrition security was well-aligned with Zambia's national development plans and policies, AfDB Country Strategy for Zambia, and the SDGs. The project's three components, namely Agricultural Production and Productivity, Value Chain Development and Market Linkages, and Institutional Strengthening, effectively met the needs of the beneficiaries and were harmonized with existing efforts and structures. The stakeholder assessment revealed a satisfactory rating for the project's development objective and design, indicating that the project was well-aligned with applicable sector strategies and country development strategies. Overall, the project under the supervision of the Bank was successful in fulfilling its objectives and contributing to the economic development of Zambia.

Key issues (related to Bank performance, max 5, add rows as needed)	Lessons learned
1. Delays in processing of direct payments	1. There is a stipulated time for processing direct payments to contractors and suppliers. However, in most cases the timeline is not adhered to and this affected the performance of the contractors/suppliers and subsequent supplies and work.
2. Regular supervision	2. The project encountered a number of key bottlenecks during implementation; supervision from the Bank would have been at least twice a year and other times of critical need, increased supervision would have helped to resolve some of the knotty issues earlier before it gets out of hand.

2. Borrower performance

Rating*	Narrative assessment on the Borrower performance to be inserted by the Bank (both quantitative and qualitative, depending on available information). See guidance note. (indicative max length: 250 words)
3	The implementation of certain activities of the project relied heavily on the expertise of subject matter specialists (SMS). Unfortunately, this dependence on SMS hindered progress on multiple occasions since their primary work commitments took precedence. As a result, the project faced delays beyond measure. The non constitution of the PIU and use of Ministry staff to implement the project activities for almost two years of the start-up of Project affected its performance. However, the remarkable results achieved under gender mainstreaming across all components indicate that the project adhered to GAFSP APMEP Appraisal Report stipulations in this regard. The project implementation and results were impacted by procurement issues, particularly in contract management and late procurement of service providers. Unfortunately, two contracts were terminated due to the inability of contractors to deliver according to the contractual requirements. Some contracts surpassed their defects liability period and automatically lapsed. These difficulties resulted in delays in the project's execution and had a negative effect on the overall outcomes achieved. While the Project's effectiveness was rated as satisfactory by stakeholders, there were some minor

	shortcomings identified in our assessment. Some implementation challenges caused delays, and coordination and management issues hindered the achievement of most desired outcomes. However, these issues were not significant enough to impact the overall satisfactory rating. On the other hand, the project's efficiency received an unsatisfactory rating, indicating that certain objectives were not met, particularly around critical processing resources. The stakeholders have identified the lengthy procurement process as not being helpful, leading to this rating.
	Comments to be inserted by the Borrower on its own performance (both quantitative and qualitative). See guidance note on issues to cover. (indicative max length: 250 words)
	N/A

Key issues (related to Borrower performance, max 5, add rows as needed)	**Lessons learned**
1.Use of Subject Matter Specialists (SMS)	The implementation of certain activities of the project relied heavily on the expertise of subject matter specialists (SMS). Unfortunately, this dependence on SMS hindered progress on multiple occasions since their primary work commitments took precedence. As a result, the project faced delays beyond measure. It is important to hire staff with the relevant knowledge and expertise to implement project activities from the beginning
2. Non constitution of the Project Implementation Unit (PIU) and use of Ministry staff	The non constitution of the PIU and use of Ministry staff to implement the project activities for almost two years of the start-up of Project affected its performance as Government bureaucracy was introduced in the implementation of the Project thus leading to time overrun.
3. Procurement Issues	The project implementation and results were impacted by procurement issues, particularly in contract management and late procurement of service providers. Unfortunately, two contracts were terminated due to the inability of contractors to deliver according to the contractual requirements. Some contracts surpassed their defects liability period and automatically lapsed. These difficulties resulted in delays in the project's execution and had a negative effect on the overall outcomes achieved. There is the need to recruit competent procurement staff to handle procurement of goods and supplies.

3. Performance of other stakeholders

Rating*	**Narrative assessment on the performance of other stakeholders, including co-financiers, contractors and service providers. See guidance note on issues to cover.** (indicative max length: 250 words)
3	The majority of stakeholders performed well including; Subject matter specialists, central level and district officers, block and camp level staff etc. The performance tended to be varied and depended heavily on the individuals in the teams. Rice cultivation hectrage was raised from 5 ha in 2015 to 1500 ha in 2021 as a result of strategic partnership with COMAO and JICA. Other Partners such as Harvest-Plus, CSO-SUN and SCRALA provided a lot of support in the introduction of Bio-fortified seeds such as orange maize, iron rich beans, Improved cassava etc. The Citizens Economic Empowerment Commission (CEEC) assisted farmers to obtain loans for their farming business especially fish farmers to stock their ponds. The Project has invited private sector players to buy into the Chitambo Cassava Processing Mill (70% of the shares) so as to bring on board, private sector management efficiency. Overall, the project has demonstrated some positive effects on the intended and unintended beneficiaries. However, it is important to note that certain components of

	the project have only served as triggers for potential impact, which can only be fully realized with further implementation in line with the project design. As such, it is recommended that the Ministry of Agriculture (MoA) and Ministry of Livestock and Fisheries (MFL) continue to monitor and evaluate the outcomes of the interventions, to ensure sustainability and that its intended impact is realized.

Key issues (related to performance of other stakeholders, max 5, add rows as needed)	**Lessons learned** (max 5)	**Target audience** (for lessons learned)
1. Subject Matter Specialists (SMS) tended to have an upper hand in project implementation	1. The SMSs are mainly central level officers who have a more national view of issues rather than specific local knowledge which the District grassroot staff have more insight into. They also tended to be busy with many other issues at the expense of the project. The District level staff however, are always in touch with their area of operation in the district and their focus will always be in the locality. It is therefore recommended that the district staff be placed in charge of project implementation in the districts with the SMSs supporting them.	1. GRZ
2. Draft contracts etc. sent to the Ministry of Justice (MoJ) for legal review and approval took too long (particularly in the early years of the project) to be cleared.	2. Constant follow up with the Ministries is required and they be made aware of the impacts of such delays on project implementation.	2. GRZ

IV Summary of key lessons learned and recommendations

1. Key lessons learned

Key issues (max 5, add rows as needed)	**Key lessons learned**	**Target audience**
1. Concentration on irrigation farming at the beginning of the Project and neglecting rain-fed agriculture.	1.Rain-fed agriculture should have been practiced in the irrigation areas while waiting for the commencement of irrigation farming at the initial stage of the Project in order not to loose much of production time.	GRZ & AfDB
2.Infrastructure designs.	2. To achieve a smooth project initiation, it is essential to have comprehensive designs in place for all upcoming infrastructure projects such as irrigation facilities and roads. This critical step will help streamline the project execution process and ensure successful outcomes. Integrating detailed designs as an integral part of the project planning process is useful.	GRZ & AfDB
3.Procurement Issues.	3. Employment of Procurement officers with relevant experience is essential because without procurement, there will be no disbursement and implementation output and outcomes.	GRZ & AfDB

4.Capacity Building and Training	4. Continuous training of beneficiaries (farmers' groups, cooperatives, artisans etc) is important to engender sense of ownership in them for sustainability.	GRZ & AfDB

2. Key recommendations (with particular emphasis on ensuring sustainability of project benefits)

Key issue (max 10, add rows as needed)	**Key recommendation**	**Responsible**	Deadline
1. Operationalization of the Chitambo Cassava Mill	1. Efforts should be intensified to obtain resources to operationalize the Chitambo Cassava Mill in order not to compromise the project's outputs and outcomes.	GRZ	29 Dec' 23
2. Regular Technical Review Meetings	2. Holding of regular monthly technical review meetings amongst stakeholders will help in driving down the message of ownership, determining challenges, bottlenecks and potential conflicts and proffering solutions, ultimately resulting in a more efficient and effective collaboration among the teams involved.	GRZ, Stakeholders	Continuous
3.Provision of Electricity in the Shikabeta Irrigation Scheme	3. The prioritization of providing electricity to the Shikabeta Irrigation Scheme should not be debated. The delay in providing electricity in this scheme and other schemes is hindering the benefits that could be derived from all year round farming.	GRZ	29 Dec' 23
4. Establishment of Cold Storage Facility	4.To enhance market linkages within the aquaculture industry, the Ministry of Livestock and Fisheries (MLF) should consider the establishment of cold storage facilities, which would be managed by a committee with the assistance of GRZ officials. This strategic move will promote improved coordination and collaboration amongst stakeholders, leading to enhanced operational effectiveness and ultimately, increased profitability.	GRZ	29 Dec' 23

V Overall PCR rating

Dimensions and criteria	**Rating***

DIMENSION A: RELEVANCE	
Relevance of project development objective (II.A.1)	3
Relevance of project design (II.A.2)	3
DIMENSION B: EFFECTIVENESS	
Development Objective (DO) (II.B.4)	3
DIMENSION C: EFFICIENCY	
Timeliness (II.C.1)	2
Resource use efficiency (II.C.2)	3
Cost-benefit analysis (II.C.3)	3
Implementation Progress (IP) (II.C.4)	3
DIMENSION D: SUSTAINABILITY	
Financial sustainability (II.D.1)	3
Institutional sustainability and strengthening of capacities (II.D.2)	3
Ownership and sustainability of partnerships (II.D.3)	3
Environmental and social sustainability (II.D.4)	3
AVERAGE OF THE DIMENSION RATINGS	**3**
OVERALL PROJECT COMPLETION RATING	**3**

VI Acronyms and abbreviations

Acronym (add rows as needed)	Full name
ABC	Agriculture Business Centres
AfDB	African Development Bank
APMEP	Agriculure Productivity and Market Enhancement Project
CEEC	Citizens' Empowerrment Commission
CFS	Crop Forecast Survey
ESS	Environment and Social Safeguards
ESMP	Environment and Social Management Plan
GAFSP	Global Agriculture and Food Security Program
GRZ	Government Republic of Zambia
IDC	Industrial Development Coorporation
IPR	Implementation Progress Report
LFA	Logical Framework Approach
MTE	Mid Term Evaluation
MTR	Mid Term Review
NAIP	National Agriculture Investment Program
PAR	Project Appraissal Report
SESA	Strategic Environmental and Social Assessment
SNDP	Sixth National Dvelopment Plan
USD	United States Dollar
ZEMA	Zambia Environmental Management Agency

Required attachment: Updated Implementation Progress and Results Report (IPR)– the date should be the same as the PCR mission.

Project Progress Report (Period: January 31, 2023 – June 30th , 2023)

1. Basic Project Information & Milestones

Project	**Zambia**: Zambia GAFSP Agriculture Productivity and Market Enhancement Project (APMEP)
Supervising Entity (SE)	AFDB
SE Primary/Secondary team contact	Lewis Bangwe, l.bangwe@afdb.org; Mr. Philip Boahen, p.boahen@afdb.org

Project approval date by SE	03/26/2014
Project effectiveness date	06/10/2014
Date of first disbursement of GAFSP funds	12/31/2014
Closing date[2] of GAFSP funds	30/06/2023
	If project has been extended, enter new closing date:30/06/2023
	Is the new extension a result of COVID-19 project Restructuring? YES ☒ NO ☐
	How many extensions have there been in total? If there were multiple extensions provide the previous Closing dates **Three 3 extensions, first closing date was 30/06/2020, second closing date was 31/03/2021 and the third and last one is 30/06/23**
Midterm review mission date	February 2021
Next planned supervision mission date	May, 2023

1) Commitments and Disbursements

	Commitment ($m)	Disbursed as of Dec 31st, 2023	Disbursed as of June 30th, 2023	% of total commitment as of June 30, 2023
Total Project[3]	**36.26**	**32,280,623.62**	**31, 203,320**	**86%**
GAFSP portion	31.12	30,78	30,848,489.04	99.13%
COVID-19 Additional Financing from GAFSP4	1.4	262,650	354,831.38	25%

[2] Closing date here means end of project activities, not financial closing.
[3] Including all financing sources, such as other donors, government, beneficiary, etc.
[4] Only refers to COVID-19 Additional Financing from GAFSP approved in 2020

	Commitment ($m)	Disbursed as of Dec 31st, 2023	Disbursed as of June 30th, 2023	% of total commitment as of June 30, 2023
Impact Evaluation5				

2) **SE's Official Ratings**
3)

Rating: Satisfactory **Rating Date:** 07/15/2022	**Rating:** Satisfactory **Rating date:**11/26/2022
Rating: Satisfactory **Rating Date:** 07/15/2022	**Rating:** Satisfactory **Rating date:**11/26/2022

4) If the SE's rating scale differs from a 6-point scale of Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU) and then please provide the explanation of the scale being used below.

Please provide any justification if necessary

5) GAFSP COVID-19 Additional Financing

Expected submission date for GAFSP Steering Committee for information	xxx
Expected approval date by SE	xxx
Provide a paragraph describing the status progress of project preparation	xxxx
Are there any significant changes of the AF project paper compared with the proposal that was approved by GAFSP Steering Committee last year? If so, please explain	There are no significant changes from the original project, the activities are very similar and in many instances a continuation

[5] Only for projects that are utilizing GAFSP funds approved/allocated for Impact Evaluation.

While processing the AF, do you also make significant changes of the original project? If so, what are they?	No significant changes

6) Implementation Status Overview

Provide a paragraph or two describing the project implementation progress, highlighting key outputs and outcomes that have resulted during the reporting period of January 31st to June 30, 2023. Focus on key outputs and outcomes as opposed to administrative or process-related activities.

Please provide updates per project Component

ition include any updates to the component resulting from COVID-19 restructuring, if applicable):

COMPONENT ONE: Agriculture Production and Productivity

1.1 Irrigation Development

1.1.1 *Irrigation System Construction and supervision:*

Works at Shikabeta irrigation scheme were completed and partially handed over to the Ministry of Agriculture on 30th December, 2021 pending the installation of electricity. A contractor has now been engaged (contract dated 12th April, 2023 has now been signed and works are expected to be concluded by September, 2023. The contract has been signed with the private contractor 'Northlands Equipment' as there was complication with the contract to have the only electricity supplier the Zambia Electricity Cooperation (ZESCO) which made it difficult for the national electricity provider to sign the contract with the government. It was initially envisioned that funds from 'Mitigating the impact of Covid 19 on Food security' project would be used to cover the cost of electrification not met under the APMEP project. In an unforeseen turn of events, the GAFSP gave an instruction to the end that funds from the grant should not be used not only for the electrification activities at Shikabeta. Also affected is the operationalization of the cassava milling plant. A total of three (3) centre pivots have been installed to cover total Hectarage of 136 ha, it is expected to be completed by 30th September, 2023. Commissioning is planned be done as soon as power been installed and testing has been concluded around October, 2023.

The project has procured piping materials for distribution to irrigation schemes for use during the dry months. These are currently under distribution. Also procured are 20 mini pumps which will be distributed to the schemes and the feeding centres as well.

1.1.2 Establishment of Management Entities

Management entities are now in place in all schemes set up by the project; boards were appointed in all the schemes and were oriented. Five (5) schemes had recruited managers in (Luombwa, Lusiwasi, Sasa/Mulembo, Mazembe and Shikabeta recruited managers in 2021. In 2022/23, two of the five managers employed by the schemes are still in office. The schemes that have managers are the Sasa/Mulembo/Mazembe and Lusiwasi scheme. The companies have struggled to sustain operations of the schemes.

1.1.3 Rain-fed cultivation 2022/2023 season

Rain-fed cultivation is currently underway in 7/10 schemes in the 2022/2023 season. The schemes where there is no cultivation are; Buleya Malima, Chabbobboma and Shikabeta. Inputs were last provided to the schemes in the 2020/21 season by the project. The main factor for this mainly relates to the organization of Water user associations. The total hectarage put under rain fed agriculture in the 2022/23 season was ***910.2*** ha across 7 schemes with the biggest component from Luombwa scheme and surrounding clusters where rice and sugar beans was cultivated. A total of 40 ha of rice has been cultivated in Luombwa, which was quite a reduction from the previous 310 ha in the 2021/22 season. The cultivation on the other hand for cassava has increased owing mainly to the ready market for cassava at the cassava milling plant in Chitambo which is was expected to have been opened earlier in 2023. The schemes are also seeing an increase in productivity (production per unit area) of 3.1 tons/ha and 1.4 tons/ha for beans.

Cultivation of crops in the schemes in the 2022/23 and yields for the season were as follows;

	SCHEME NAME	AREA CULTIVATED 2023	YIELDS
1.	Chabbobboma	0	
2.	Siatwinda	32 ha sunflower	Crop failure
3.	Nchimini	40 ha sunflower	Crop failure
4.	Buleya Malima	5 ha maize, 5 ha sunflower 10	Crop failure
5.	Mazembe	45 ha Soya bean, 25 ha Cassava 70	
6.	Sasa		
7.	Mulembo		1.2 tons (24*50 kg)
8.	Shikabeta	0	
9.	Lusiwasi (Mailo)	Maize, 15.4 ha Soya bean 7 ha Cassava 28.8 beans 2ha 53.2 ha	Maize (620 x50 kg) Soya 27x50 kg 9x50 kg bag
10.	Luombwa	40 ha Rice 307 ha beans	12.4 tons (247x50 kg) 429.8 tons

		54 cassava 347	
	Luombwa clusters	296 ha Rice	920 tons (23,000 bags x 40 kgs)
	TOTALS	***910.2 ha***	

Environmental Briefs:

ZEMA has since approved all the Environmental briefs for all the Irrigation and Aquaculture sites under the project A consultant was engaged to assist the project assess progress on Environmental and Social Management plan (ESAMP). The briefs were submitted to the Ministry Headquarters and have since been disclosed on the Ministry website. The project had meetings in all the project districts to discuss matters relating to Grievance Redress Mechanism (GRM). This was successfully concluded and a report shared. The project now has an Environmental specialist who assists the projects with reporting and data collection on matters relating to E&S.

Aquaculture development

1.2.1 Fish cages and pens

The cages and pens have continued to produce fish from the first stocking in 2021. The performance of the fish cages and pens cooperatives in 2023 is varied; production is in second, third and fourth rounds from the initial fingerlings provided to farmers in 2021.

1.2.2 Production of fish by pond farmers

The project last procured fingerlings and feed for 57 pond farmers in 2018. Some of these farmers in Rufunsa, Chitambo and Serenje have continued to produce fish on their own. Some of the farmers have gone on to access loans and are producing more. In total, 101 farmers who were originally under APMEP (including cages and pens) have accessed loans under the Citizens Economic Empowerment Commission (CEEC). The cumulative total tonnage of fish produced in Sinazongwe Chiyabi, Siansowa and Simuzila sites (Sinazongwe district) is now around **135** mt.

In 2023, deliveries were in two batched. The first delivery involved a total of ***134,155*** fingerlings, of which 67,078 were for Sinazongwe, while 26,831 was for Gwembe. The remaining 40,246 fingerlings were for the Lake Lusiwasi sites in Serenje.

The second batch of ***395, 000*** fingerlings has been procured and are planned to be distributed in August, 2023. These will also be distributed to the same sites as follows; Gwembe (200,000), Sinazongwe (150,000) and Serenje (45,000). The fingerlings for Gwembe district (200,000 fingerlings) will be distributed to; Chipepo (Kayuni, Namanzuma, Chipepo habour A, Chipepo Harbour(Fisheries) B, and 150,000 fingerlings for Sinazongwe districts. The sites in Sinazongwe are Siansowa, Simuzila and Chiyabi. Another 45,000 (Forty- five thousand) Fingerlings (2-5g) *species* have been procured for the sites on Lake Lusiwasi in Serenje district. The three sites (Nalubi, Nansala, Makalata) will receive equal quantities of 15,000 fingerlings in three sites in June, 2023.

The fish feed for the first batch of fingerlings was distributed; The second batch of feed is expected to be distributed at the same time as the fingerlings in August, 2023. The total number of bags procured is 1,501 which includes; tilapia fry fine (0.5mm), fry coarse (1mm), fry coarse (2mm), fish grower pellet (5mm) and green pond pellet (5mm).

In terms of yields, from the 134, 415 fingerlings, over ***31,000 kg (31,875)*** is expected to be harvested aggregated across all the 10 sites from the first batch while the second batch is expected to yield around ***90,000*** kg.

10 bird nets were procured and have been delivered as well;

1.3 Crop Diversification and Intensification*:*

1.3.1 *Rice production*

Since the project introduced Rice as a crop in Chitambo is 2015, production continued to increase and by the 2021/22 season, the scheme had cultivated 296 ha of rice. In the 2022/23 season however, the scheme has scaled down substantially due to some of the issues experienced in the previous season. The main issue related to the price of rice which fell substantially. The scheme is now focusing on improved crop management and increasing productivity (that is production per unit area) in the current season. In the last season, the scheme cultivated 40 hectares only while the farmers in the clusters cultivated 296 ha.

1.3.2 *Mechanization and Conservation Agriculture (CA)*

The demand for mechanization has gone up across all the districts. The mechanizations sets procured and distributed in 2017 and in 2021 (for Conservation agriculture and just mechanization) have been in use since. A total of 18 tractor sets were distributed, 8 of which were conservation agriculture sets.

The previous area under mechanization carried over from the last season was now 34,764. In the period under review, land preparation activities are underway as it is now planting season. So far, at Bunyete cooperative in Gwembe which manages one of the tractors in that district, a total of 42.5 ha was under mechanization, while the Lusiwasi tractor was hired out to other farmers who put 176 ha under mechanization. In Mulilima another CA tractor at Serenje, the area under mechanization currently is 106 ha, while the Chitambo as a district have put 4002 in the 2021/22 season and 1190 ha in the 2022/23 season under mechanization. The schemes have a total of 298 bringing the total area under mechanization for the period to **40,548.2 ha.** This data is still under compilation and is only from a few districts. The number of privately owned mechanization sets available to farmers for hire has increased in a number of districts (especially Chitambo) owing to the demand for mechanization services in general.

For conservation agriculture however, the numbers are not increasing to desirable levels. Farmers are catching on. The differences in terms of uptake by the farmers seen to differ by district; this seems to be attributable to the presence of other organizations/institutions which are actively promoting the practice. The area under CA brought forward from previous periods was 33,383.8 and is now **34,390 ha** which is cumulative over the program period. This number is expected to go up by the end of the season once the compilation process has been completed.

1.3.3 *Seed procurement and distribution*

In the current season (2022/23) the project had intentions of procuring inputs for some schemes, however the procurement process took longer than expected. As a consequence, this procurement will not be implemented. Seven (7) schemes have secured their own inputs out of proceeds from previous seasons. Cassava cuttings were procured and distributed in January, 2023 to farmers in Serenje and Chitambo. The cassava cuttings that were distributed are expected to provide more improved variety of seed (disease free) cultivation of cassava necessary to supply the cassava milling plant at Mukando in Chitambo district. The distribution was completed.

Mechanization sets were procured recently including; 1. heavy duty seed drill row rice planters(28), tractor mechanical weeders (02), self-propelled rubber track combine harvester (01), tractor for rice mill (01) were procured and distributed to all the schemes in June, 2023. The area under mechanization is expected to increase exponentially in the next season

1.4 Livestock Development

The period saw a reduction in the Livestock development activities as most activities are completed. However, the project continued to monitor the performance of various facilities under the sub-component.

1.4.1 The Pass on scheme performance

On the local chickens pass on has been successful in Chitambo district with a number of pass on in a number of groups. A total of 900 chickens have been distributed to farmers in Serenje to Kapumpe cooperative. The cooperative has 83 members of which 40 are women. The first 10 families in these groups have received 9 chickens each and are expected to pass on them on once they have reproduced. The training of the farmers has been on going and so far, a total of 90 farmers (20 of which were female) have been trained by the district livestock office. They are also undertaking New disease vaccinations in the month of July, 2023. In addition, veterinary products to support the farmers were procured and distributed.

1.5 Value chain development and Market Linkages:

1.5.1 Value addition equipment

Previously in 2018, value addition equipment were distributed to all the six (6) districts of project operation. Equipment procured and distributed include 280 pieces of small value addition equipment. Installation of the equipment had commenced by a team from the department of Agribusiness and is still on going. With the support of the Project the TSB technicians in the Ministry of Agriculture, will continue to monitor the performance of all installed equipment and attend to those beneficiaries experiencing challenges in the utilization of the facilities. The oil expellers in particular have made the lives of communities better. In Sinazongwe and Serenje, a trend has been seen where more sunflower is being grown as farmers have noted that is it much less costly to grow and process it themselves, than to buy cooking oil from retail outlets. A training has been planned to train farmers in the operations and maintenance of the equipment. I will also focus on agribusiness and issues of sustainability. It will take place in August, 2023.

1.5.2 *Cassava milling plant in Chitambo*

The construction of the 30 ton capacity cassava milling plant in Chitambo was completed and handed over to the Government in September 2021 with all the three lines (flour, starch and stock feed) of the plant being fully functional. The plant has not yet commenced operations due to lack of funds for operations. The Government of the republic of Zambia is currently mobilizing funds for the plant to commence operations.

6. Nutrition Security and Capacity Building:

6.1 Child Feeding centres

The infant feeding centres which were not as active between 2021 and 2023 were revamped in the period under review. Under the relief fund; 'Mitigating the impact of Covid 19 on household food security project (C-19 HFS) a supplier was engaged to provide food stuffs such as beans, cooking oil, Bambara nuts, sugar etc. to the centres. The food stuffs were delivered to the centres in January, 2023. The volunteers were reorganized and have been recruiting and following up on rehabilitation of malnourished children.

Also procured and distributed were the vegetable and other seeds. Vegetables distributed include okra, lettuce, green beans, amaranthus, and onions among others. A training has been planned for the volunteers on management of the CFCs and also on the management of the crops as these are distributed to the farmers. A cumulative total of children were rehabilitated into the program.

Project management

The project which was scheduled to be closed in March, 2021 was granted an extension of 12 months with additional funds dubbed "Mitigating the impact of Covid 19' on Food security'. This means that the project will not go up to June 30th, 2022.

Monitoring and Evaluation

The period under review happens to be the last semester under the project. Key activities included the compiling of the Project Completion report and Beneficiary Impact assessment (expected to be concluded by mid -August, 2023. By project close, there were a couple of activities that are planned to be concluded; implementation has been hampered mainly by slow procurement.

Implementation Challenges

1) What are the main factors that have been affecting the implementation progress of the project (select all that apply)?
   - ☒ Political Governance
   - ☐ Macroeconomics
   - ☐ Sector Strategies and Policies
   - ☐ Technical Design of Project or Program
   - ☐ Institutional Capacity for Implementation and Sustainability
   - ☐ Fiduciary
   - ☐ Environmental and Social
   - ☐ Stakeholders
   - ☐ Natural or Man-made disaster
   - ☐ Others
   - ☐None

2) If you have selected any factors above, please explain how the project is addressing these factors.

The change of government in the country in August, 2022 led to some changes in government at almost all levels including the project PIU. The management team has now stabilized, however project implementation has not been to expectation due to continued procurement delays

3) Has the project experienced any official sanctions either by the Supervising Entity or the Government (e.g. suspension) during the reporting period of January 1, 2022 - June 30, 2022?

Sanction by SE: **YES** ☐ **NO** ☒, if Yes, date: Click here to enter text.
Sanction by Government: **YES** ☐ **NO** ☒, if Yes, date: Click here to enter text.

4) If you have answered **YES** in 3), provide a brief explanation of the sanction and proposed actions.

Click here to enter text.
N/A

5) Has the project undergone a restructuring[6] during the reporting period of January 1, 2022 - June 30, 2022?
   YES ☒ **NO** ☐

6) If you have answered **YES** to 5), provide a brief description of the restructuring.

[6] Project restructuring refers to any of the following situations: extension of the project closing date, and changes to the project (e.g., budget, safeguards, development objective, project design) during implementation, including reallocation of funds between components.

The project received additional funding under mitigation of Covid 19 to the original project (APMEP) which was expected to close in March, 2022. The new project is using the same implementation arrangements as the original project. The project has since closed, the last day being 30th June, 2023.

7) Has the project collected any **Geo-spatial data** covering the project activities on subnational level? **YES ☐ NO ☒**

8) If you have answered **YES** to 7), please email the GAFSP CU the relevant data and files.

9)Response to food crisis and flexibility needs:

(a) What are the main challenges faced by your project, and emerging priorities, if any due to current/ongoing food crisis? Please list/describe.

(b) GAFSP CU sent a letter to the project teams on April 20th informing available flexibilities/provisions to restructure the project formally or informally. Are you planning to do so? **YES ☐ NO ☐**

(c) If yes, is it formal or informal and what support is needed to facilitate this process?

7) Cross-cutting themes: How does your project contribute significantly to any of these topics? Please select Yes or No to all bullet points in 2 a), b) and c) below

a) Nutrition: Does your project implement activities that directly and intentionally contribute to improving nutritional status of its beneficiaries? **YES ☒ NO ☐**

Specifically, does your project implement any of the following activities?

- Dissemination of biofortified seeds/crops **YES ☒ NO ☐**
- Construction of homestead gardens **YES ☒ NO ☐**
- Food fortification **YES ☐ NO ☒**
- Promotion of production of food with high nutrient content (e.g., horticulture, pulses, meat, dairy, fish) **YES ☒ NO ☐**
- Nutrition education (through community programs or extension programs) **YES ☒ NO ☐**
- Awareness campaigns on breastfeeding **YES ☒ NO ☐**
- Providing supplements (e.g. folic acid, iron, calcium, multiple vitamin A, zinc) **YES ☐ NO ☒**
- Producing or distributing ready to use therapeutic foods **YES ☐ NO ☒**
- Other activities **YES ☐ NO ☐**

If you have answered YES to any of the bullet points above, please provide detail on activities carried out and its results to date.

The infant feeding centres that were not so active has been revised with the distribution of food rations and crop inputs. Volunteers have been trained again and recruitment of malnourished children has been ongoing. The cumulative number of beneficiaries under Nutrition security is now **24, 113** of which are 1,564 are beneficiaries in the period under review. The project recently procured food rations in order to revamp the infant centres. Also input packs were distributed to all the 12 feeding centres. Also distributed were vegetable seeds and agro chemicals.

b) Climate smart agriculture: Does your project implement activities that directly and intentionally adapt to climate change or mitigate greenhouse gas emissions? **YES ☒ NO ☐**

Specifically, does your project implement any of the following activities?

- Climate-resilient irrigation/water management practices **YES ☒ NO ☐**
- Traditional agronomic techniques (such as mulching, intercropping, conservation agriculture, on-farm water management, and/or pasture and livestock management) **YES ☒ NO ☐**
- Innovative practices (such as improved climate-resilient seed varieties, better production management of emission-intensive crops, integrated pest and disease control technologies) **YES ☒ NO ☐**
- Management systems using agro-climate data to better manage/predict climate variability risks **YES ☐ NO ☒**
- Extension services/training on climate-resilient farming techniques **YES ☒ NO ☐**
- Agroecological farming practices (that focus on productivity as well as interactions – between plants, animals, humans and the environment - across the agroecosystem) **YES ☒ NO ☐**
- Other activities **YES ☐ NO ☐**

If you have answered **YES** to any of the bullet points above, please provide detail on activities carried out and its results to date.

The project is an attempt to implement climate smart initiatives including irrigation, conservation agriculture etc. Conservation farming equipment, trainings and extension services have and are being provided by the project

- If you answered **YES** to any of the questions under (b) above, provide the measurement indicators, actual results achieved to date and project targets.

c) Jobs: Does your project implement activities that directly and intentionally lead to employment creation? **YES ☒ NO ☐**

Specifically, does your project implement any of the following activities?

- Setting up of post-harvest facilities with new job opportunities **YES ☒ NO ☐**
- Cash/food for works schemes **YES ☐ NO ☒**
- Vocational training programs (only when post-training employment is specifically tracked) **YES ☐ NO** x
- Other activities **YES ☐ NO ☐**

If you have answered **YES** above, please provide detail on activities carried out and its results to date (including numbers of jobs created).

The Project supported establishment of infrastructure which has created a number of local jobs (4,859 of which 2,484 are female). The establishments of a rain fed crop from 2018 to date has generated the most jobs from land preparation up to harvest. Others were employed by contractors of livestock service

centres (21), fish cages and pens (62), the cassava mill (36) while others are working as operators of mechanization and value addition equipment (125). The number is expected to increase in 2023 once the cassava milling plant and the Shikabeta scheme are operational.

2. Project Results

1) GAFSP Core Indicators[7](report for entire project totals – do not prorate for GAFSP financing)

Note:
The project team is only expected to fill in the relevant indicators (i.e. the project is intentionally working on addressing for which there is End of Project target). If not relevant, please fill in *N/A*.
Please refer/check the footnotes for precise description of the indicator.
Also see Annex 1 for further detailed description and explanation of how to report the indicators if the footnote is not clear enough.
If you report on project's intervention on climate smart agricultural or strengthening climate resilient, please briefly explain nature of climate-related support in the respective cell.

Core Indicator Level[8]		**Baseline**	**Reached as of December 31, 2022**	**Reached as of June 30, 2023**	**End of Project Target at Design (Enter revisions in the next column)**	**Revised Project Target (Revisions if any)**
Number of beneficiaries reached (*gender disaggregated, percentage who have been helped to cope with impact of climate change)*[9]	Number	0	75,618	77,182	Total number of beneficiaries: 75,000	
	Gender (male/female)	Male: 0 Female: 0	Male: 34,766 Female: 40,754 54% Women	Male: 34,766 Female: 40,852 54% Women	Male: 41,250 Women: 33,750 Percentage: 54% Women	

[7]If there have been any changes to the applicable GAFSP Core Indicators for your project, please add or delete them in the table.
[8]Core Indicator refers to beneficiaries (women & households), number of farmers who adopted technology, length of roads constructed etc.
[9] Provide the number of people receiving benefits from the project, disaggregate for gender and those receiving CSA-specific support.

Core Indicator Level[8]		Baseline	Reached as of December 31, 2022	Reached as of June 30, 2023	End of Project Target at Design (Enter revisions in the next column)	Revised Project Target (Revisions if any)
	% considered as having received support to use 'climate smart' practices	0	75%	85%		Most of the interventions under the project were designed to be Climate smart including Irrigation and aquaculture development, conservation agriculture etc.
Land area receiving improved production support and *percentage of these that are climate smart* (ha)[10]	Hectares (Ha)		34,734	40,548.2	32,000	The is mainly through the use of mechanization sets including tractors and harvesters etc. Also the project had provided Conservation agriculture sets including rippers, boom sprayers, planters etc.
	% of reported land area considered as under 'climate smart' practices 0		45%	60% 34,390		This is area under Conservation agriculture only
Number of smallholders receiving productivity enhancement support, *gender disaggregated, climate-smart agriculture support*(number	Number	0	Beneficiaries: 23,564	Beneficiaries: 23,564	Total number of beneficiaries: 33,000	

[10]This indictor refers to area that adopted new inputs/practices, new/rehabilitated irrigation services, land registration, etc. and to be disaggregated for climate-smart interventions.

Core Indicator Level[8]		Baseline	Reached as of December 31, 2022	Reached as of June 30, 2023	End of Project Target at Design (Enter revisions in the next column)	Revised Project Target (Revisions if any)
of people)[11]	Gender (Male/female)	0	Women: 41%	Women: 41%	Women: 40%	
	% considered as having received support to use 'climate smart' practices		Climate change: 64%	Climate change: 64%	Percentage with climate-smart agriculture support:	The project had provided Conservation agriculture sets including rippers, boom sprayers, planters etc.
Number of producer-based organizations supported (number)[12]		0	10	10	18	These are cooperatives and schemes assisted with mechanization sets and Conservation agriculture sets
Volume of agriculture loans[13] that are outstanding						N/A
Percentage of beneficiaries with secure rights to land, property, and natural resources[14] (percent of total beneficiaries)						N/A
Roads constructed or rehabilitated, *percentage*	km					

[11]This indicator provides the number of end-users who directly participated in project activities. End users include technology/technique adoptees, water users with improved services, those who had land rights clarified, people offered new financing/risk management services and those using CSA approaches

[12]Producer-based organizations refer to Relevant associations established or strengthened by project

[13]Refers to volume of outstanding loans for agriculture and agribusiness in a financial institution

[14]Measured as those with legal documentation or recognized evidence of tenure and those who perceive their rights are recognized and protected

Core Indicator Level[8]		Baseline	Reached as of December 31, 2022	Reached as of June 30, 2023	End of Project Target at Design (Enter revisions in the next column)	Revised Project Target (Revisions if any)
resilient to climate risks[15](km)	%that are designed to withstand changes in climate					This component was dropped at Mid-term
Number of post-harvest facilities constructed and/or rehabilitated[16] (number)		0	221	221	221	These are community level value addition equipment facilities, irrigation schemes, and Livestock service centres
Volume of agricultural production processed by post-harvest facilities established with GAFSP support, *by food group*[17](tons)				23.2 mt	26mts	Crops processed include; sunflower, rice, honey, fruits and assorted vegetables etc. have been processed at community value addition equipment which includes oil expellers, rice polishers, solar driers. This number is expected to increase once the compilation is completed
People benefiting from cash or food-based transfers, *gender disaggregated*(number of people)[18]						N/A

[15]Provide the distance of all-weather roads built, reopened, rehabilitated, or upgraded by project and the percentage that are designed to withstand changes in climate.
[16]Post-harvest facilities include markets, agro-processing/storage/quality control facilities.
[17]Provide the tons of total produce processed, sorted by 10 major FAO food groups
[18]This refers to the number of people who benefited from cash or food transfer interventions

Core Indicator Level[8]		Baseline	Reached as of December 31, 2022	Reached as of June 30, 2023	End of Project Target at Design (Enter revisions in the next column)	Revised Project Target (Revisions if any)
People receiving improved nutrition services and products, *gender disaggregated, age disaggregated*[19] (number of people)		0	22,549	24,113	23,500(mal e 50%)	All the 12 feeding centres received food rations and vegetable other crops inputs earlier in the period under review. A total of 1,564 farmers are beneficiaries.
Direct employment provided, *gender disaggregated*[20] (full-time equivalent)		0	2,479/2,375 Male	2,484/2,375 Male	2,650 (450 were expected to be skilled labour	A number of jobs are expected to be created in 2023 with the opening of the cassava plant, the Shikabeta irrigation scheme and the completion of the remaining community value addition equipment

[19]This indictor provides the number of people who received nutrition counseling/education, recipients of Ready-to-use Therapeutic Foods, bio-fortified foods, and Vitamin A and micronutrient supplements, people receiving extension support for nutrition-relevant techniques (e.g., homestead gardens, Farmer Field School support, etc.)

[20]This indicator shows the number of direct employees in a client company. Part time jobs are aggregated to full-time equivalent.

Core Indicator Level[8]		Baseline	Reached as of December 31, 2022	Reached as of June 30, 2023	End of Project Target at Design (Enter revisions in the next column)	Revised Project Target (Revisions if any)
Persons receiving capacity development, *disaggregated by gender and organization type*[21](number of people)		0	12,274 (5,847 women)	12,274 (5,847 women)	14,500	A number of trainings have been planned in 2023 including for farmers who were beneficiaries of value addition equipment, Nutrition products including input packs. Also planned are trainings at the cassava Milling plant and schemes
Number of substantive deliverables on food security processes completed[22] (number)						

[21]'Capacity development' refers to agricultural and non-agricultural rural training and capacity building support provided. 'Persons receiving capacity development" should be distinguished between individual producers/household members, civil society organization staff, and government officials.
[22]This indicator measures "soft support" for institutional development provided through discreet deliverables. Deliverables include policy studies, strategies and plans, best practices, and lessons learned, among others

Under the Covid 19 project "

	INDICATOR	UNIT OF MEASURE	TARGET	TOTALS	Percentage	COMMENTS
	OUTCOME 1.0					
1.1	Beneficiaries receiving agro inputs (including seeds, fertilizers, agro chemicals etc.)	#	*5,000*	*4,702*		The beneficiaries include all the 10 scheme members who are recipients of inputs including agro chemicals, fertilisers etc. The farmers supporting the 12 nutrition centres are also beneficiaries including infants, guardians and farmers were recipients of the inputs
	scheme areas			3138		
	nutrition centres			1564		
	Male	#	2500	773		
	Female	#	2500	791	*94%*	
1.2	Area cultivated with	Ha	356	*910.2*		This is the hectarage of crops cultivated in the 2022/23 season in the schemes and in the nutrition centres and surrounding areas
	Bio fortified	Ha		0		
	Cassava	Ha		107.8		
	Maize	Ha		20.4		
	Rice	Ha		337		
	Vegetables	Ha		7		
	Soya			52		
	Sunflower			77		
	Beans	Ha		309		
	Others (supported through the project)	Ha		0	*256%*	
1.3	Area irrigated using solar powered pumps	Ha	50	20	40%	The solar pumps have been procured and are expected to be distributed for mini irrigation in all the 10 schemes and in the nutrition centres. The piping materials and other accessories have also been procured already

1.4	Area cultivated/ prepared etc. with mechanization equipment	Ha		1624.5		Mechanization sets including 1. heavy duty seed drill row rice planters(28), tractor mechanical weeders (02), self propelled rubber track combine harvester (01), tractor for rice mill (01) were procured and distributed to all the schemes in June, 2023. The area under mechanization is expected to increase exponentially in the next season
				0		
	OUTCOME 2.0					
2.1	Persons who received supplementary food including infants	#	6,000	*2048*		This includes farmers trained in vegetable inputs distributed, volunteers trained at the infant feeding centres, infants and guardians participating in the cooking demonstrations. After the trainings and distributions, more malnourished infants are expected to be enrolled.
	Male			203		
	Female			281		
2.2	Households trained in Covid 19 and Nutrition	#	5,000	*1564*		
	Male			773		
	Female			791	**34%**	
2.3	Volume of agro products processed with community value addition equipment	Mt	250	207.7		These figures are expected to increase after the harvest of crops including sunflower, rice etc. which is currently being harvested
	Rice mills	Mt		12.7		
	Oil expellers	Mt		106		
	Honey presses	Mt	300	100		
	Solar dryers	Mt		0		
	Other	Mt		0	**83%**	
2.4	Households receiving PPEs and Covid printed materials	#		1760		The procurement of PPE for Covid-19 took long to be concluded and is now no longer a threat as it was. Instead, a total of 1760 work suits for farmers have been procured and are under distribution to farmers in the implementing sites.
	Farmers receiving work suits			0		
	OUTCOME 3.0			0		
3.1	Poultry produced	#		900		

3.2	Farmers who received poultry (including passed on)	#		90		A total of 90 farmers belonging to Kapumpe cooperative in Serenje district received the 900 chickens. The cooperative members are currently undergoing training in various aspects of poultry management. The total number of members is 90 (20 of which are female). Also procured were veterinary products to support farmers in this activity
	Male			60		
	Female			20		
3.3	Production of fish by recipients of fingerlings and or feed	Mt	300	*135*	**45%**	Production of fish is currently underway by cage/pen farmers in Serenje, Sinazongwe and Gwembe with over 134,155 fingerlings distributed in the period under review. Another 395, 000 fingerlings are under distribution. A total of over ***120,000 kg*** are expected to be produced from both rounds.
3.3	Farmers who received fingerlings and feed	#		327		The same cooperatives that were in the last rounds are recipients of the fingerlings and feed with the exception of the cooperatives in Siatwinda
	Male			204		
	Female			123		

4. Co-Financing

The financing amounts pre-populated in the table below show the amounts when the project was approved, which can be found in the project design document. If these numbers have changed, please enter the change in the column "Change in USD amount ($m)"

Source	Type of Financing	USD amount ($m) (taken from Appraisal Document)	Specific source	Any change in USD amount ($m, from Appraisal Document)
GAFSP	Grant	31.12	GAFSP Public Sector Window	1.4 Additional funding
	Grant	0		

Supervising Entity co-financing	Credit (interest free loan)			
	Loan			
Donor/bilateral financing	Grant	0		
	Other	0		
Government/counterpart contribution	Cash Financing	3.61	GRZ	
Local beneficiary contribution	Cash Financing	0.140	Beneficiaries	
Covid 19 Household Food Security project		1.4	Grant	
TOTAL project financing		36.27		

5. Any feedback to the GAFSP Coordination Unit

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THANK YOU!

Please submit this form back to the GAFSP Coordination Unit accompanied by the following materials. Take note also to respond to the questions related to impact evaluation provided below and enclose any available relevant documents.

1) **(mandatory)** Project Results Framework[23] (with the latest actual figures).
2) **(mandatory)** Most recent Supervising Entity official implementation status report[24]
3) **(mandatory – if applicable)** Most recent mission aide-memoire[25]

[23] Different SE have different names for this document e.g., LogFrame, Logical Framework, Results Framework
[24] Different SE have different names for this document e.g., Implementation and Results Framework, Supervision Reports, Implementation Support Report, Project Status Report
[25] Different SE have different names for this document e.g., Technical Mission, Supervision Mission

4) **(mandatory – if applicable)** Any restructuring related documentation (revised project paper, legal/ financial agreements)
5) **(mandatory – if applicable)** Mid-term review report.
6) (**mandatory – if applicable**) Impact evaluation related deliverables*; check if available and kindly enclose the document*:

   (a) Survey instrument for household data collection. (e.g., questionnaire for household or community survey, focus group discussion) **YES** ☐ **NO** X☐

   (b) Report on the baseline survey. E.g., A report describing the sampling frame and a descriptive analysis of the data collected. **YES** ☐ **NO** X☐

   (c) Report on the midline survey. **YES** X☐ **NO** ☐

   (d) Full Impact Evaluation Report of the investment project. A full report documenting the methodology, process, and main findings of the impact evaluation. **YES** ☐ **NO** ☐

   (e) Dataset. Clean and finalized dataset **YES** ☐ **NO** ☐
7) (**Recommended**) Technical reports that analyze project/component performance, outcome, impacts, or lessons learned
8) (optional) Press releases, briefs, media coverage, blogs, or any other communications related material

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ANNEX 1: Detailed Discussion of GAFSP Indicators, Their Definition, and Measurement Methodologies

2. TIER 2 INDICATORS: DEFINITIONS

a. **#1 Number of beneficiaries[22] reached, *gender disaggregated, percentage who have been helped to cope with impact of climate change* (number of people):** This indicator measures the number of people who receive benefits from the activities supported by the project through various service provisions or technical assistance. The number must be disaggregated by the gender of the beneficiary. If data are collected at the household level, the data can be either converted to people by using the locally appropriate household size or reported along with appropriate household size. The number must also capture those whose resilience to climate risks has been increased though climate change adaptation and mitigation practices (including, but not limited to, carbon sequestration, clean energy, and energy efficiency as related to agriculture). Do not double count people who have been provided with more than one type of benefit under the project. *Note: the average household size must be consistent with what is reported in the baseline survey (from the available household roster). In the absence of a household roster module, the project team can report average household size in rural areas consistent with Census, Household Income Expenditure Survey, or Living Standard Measurement Study.*

b. **#2 Land area receiving improved production practices under GAFSP, *percentage of which is climate smart* (ha):** This indicator measures the total land area, measured in hectares, that has benefited from the project's activities, investments, and/or technical assistance. Such activities may include, but are not limited to, areas that have adopted new technologies and sustainable land management practices promoted by the project. Technologies and sustainable land management practices include crop genetics, cultural practices, pest management, disease management, soil-related fertility and conservation, construction or rehabilitation of irrigation and drainage infrastructure, using climate adaptation and mitigation methods, and use of mechanization in land preparation. Do not double count land area provided multiple services. Per the intent to track climate related data, please identify the percentage of the reported land area that may be considered as under 'climate smart' practices – e.g., those that have resulted from a consideration of the three elements of CSA and have been identified and developed as locally appropriate solutions that increase climate resilience .

c. **#3 Number of smallholders[23] receiving productivity enhancement support from GAFSP, *gender disaggregated, climate smart agriculture support* (number of people):** This indicator measures

[22] It is acknowledged that the term 'beneficiary' can imply pejorative notions of dependency. While other terms like 'citizen', 'client', 'consumer' etc, could be seen to be more empowering, they are not necessarily apt for GAFSP project usage. We will therefore continue to use 'beneficiary', while noting its drawbacks and also that the term encompasses a wide range of population groups covered by both GAFSP Public Sector and Private Sector Windows. This includes smallholder farmers, small-scale producers, share-croppers, landless laborers, returnee migrants engaged in civil work as a part of cash transfer program, fisherfolk etc.

[23] The definition of smallholder may differ across countries and agro-ecological zones (FAO 2004). Landholding size is often considered as one of the direct and more readily used indicators. In areas that are arid and in areas with high population densities, smallholders are associated with cultivation of less than one or two hectares. In semi-arid areas, they can be associated with cultivation of 10 hectares and managing 10 head of livestock. GAFSP will accept the definition of smallholder as applied by each SE (including IFC for the Private Sector Window), noting that it may vary.

the number of people who have directly participated in the project's activities and is expected to be a subset of all direct beneficiaries. Examples include the number who have adopted improved food production technologies and sustainable management practices being promoted by the project (including percentage of these that are climate-smart technologies); the number of water users who have been provided with new or improved irrigation and drainage systems through the project (including those that are also climate-smart); the number of farmers accessing climate services (including early warning systems) and benefitting from weather-based crop insurance or index-based insurance. This indicator must be disaggregated by gender of the recipient. This indicator includes farmers, ranchers, fishers, and other primary sector producers who adopted technology that supports higher productivity. Do not double count people who receive more than one type of support. Per the intent to track climate related data, please identify the percentage of beneficiaries, who may be considered as having received support to use 'climate smart' practices.

d. **#4 Number of producer-based organizations supported by GAFSP (number):** This indicator measures the number of relevant associations that are either established through or strengthened by the project to achieve or enhance the project development outcomes in the project area. Such associations include but are not limited to: water user associations, producer organizations, trade and business associations, community-based organizations, and financial cooperatives.

e. **#5 Volume of agriculture loans that are outstanding:** This indicator is the volume of outstanding loans for agribusiness-related purposes in the portfolio of a financial intermediary at the end of its fiscal year.

f. **#6 Percentage of beneficiaries with secure rights to land, property, and natural resources (percent of total beneficiaries)**, measured by: (1) percentage with legally documented or recognized evidence of tenure and (2) percentage who perceive their rights are recognized and protected. This indicator seeks to track both the legal and administrative progress by governments in recognizing secure rights to land (documentation) and the people-defined progress on the quality of land rights (perceptions). Secure rights encompass "tenure security" rather than land ownership, ensuring coverage of those with secure access to land, even in those locations where individual ownership is not applicable/practiced.

g. **#7 Roads constructed or rehabilitated, *percentage resilient to climate risks* (km):** This indicator measures the kilometers of all-weather, climate-resilient road construction that enables equitable and affordable transportation in rural spaces where rural-based production activities are taking place. The road construction or rehabilitation can directly or indirectly connect farmers with areas where market centers are located. The construction or rehabilitation is expected to ease commercial transportation along the road to provide beneficiaries (farmers, fisheries, communities, and others) with better market access, helping on-farm as well as non-farm activities.

h. **#8 Number of post-harvest facilities constructed and/or rehabilitated (number):** This indicator measures the number of facilities developed by the GAFSP-supported project that support activities such as (1) improved storage/improved packaging house technologies, (2) warranty contracts, (3) investments to comply with sanitary/phytosanitary and other food safety standards,

(4) temperature and humidity control, (5) improved quality control technologies and practices, such as for sorting and grading; and (6) decay and insect control.

i. **#9 Volume of agricultural production processed by post-harvest facilities established with GAFSP support (tons, by food group)[24]:** This indicator measures volume of agricultural production supported by project activities such as (1) improved storage/improved packaging house technologies, (2) warranty contracts, (3) investments to comply with sanitary/phytosanitary and other food safety standards, (4) temperature and humidity control, (5) improved quality control technologies and practices, such as for sorting and grading; and (6) decay and insect control.

j. **#10 People benefiting from cash or food-based transfers, *gender disaggregated* (number of people*):*** This indicator measures the total number of people who benefitted from cash or food transfer interventions through the project. The data must be disaggregated by gender.

k. **#11 People receiving improved nutrition services and products, *gender disaggregated, age disaggregated* (number of people):** This indicator measures the increase in the number of people with access to a basic package of nutrition services through a GAFSP-financed project. The contents of the basic package are defined by countries, and are therefore not identical. The indicator is calculated from the increase in the number of people with access to a defined basic package of nutrition services as a result of project investment.

   i. **Guidance on "Ready to Use Therapeutic Food" (RUTF):** This energy-dense, mineral/vitamin-enriched food is designed specifically to treat severe acute malnutrition. It is equivalent in formulation to Formula 100 (F100), which is recommended by the World Health Organization to treat malnutrition.[25] RUTF is usually oil-based and contains little available water, which means that it is microbiologically safe, will keep for several months in simple packaging, and can be made easily using low-tech production methods. As it is eaten uncooked, it is ideal for delivering many micronutrients that might otherwise be broken down by heat. RUTFs permit community-based therapeutic care (CTC)—treatment at home and in the community—rather than costly and more problematic clinical care. A successful example of RUTFs is Plumpy'Nut.®

   ii. **Guidance on "Biofortification":** Biofortification improves the micronutrient density of staple food crops. This process helps to reduce the high prevalence of specific nutritional deficiencies, especially of iron, zinc, and vitamin A, which commonly occur in low-income populations. Biofortification differs from ordinary fortification because it focuses on making plant foods more nutritious as the plants are growing, rather than on adding nutrients to foods when they are processed. Examples of some foods that have been biofortified are sweet potatoes and corn.

   iii. **Guidance on "Micronutrients":** These essential nutrients are needed by the human body in small quantities for it to function normally. Categories of essential nutrients include vitamins, dietary minerals, essential fatty acids, phytochemicals, and essential amino-acids.

[24] Provide disaggregated data by gender, if available.
[25] WHO (1999a).

iv. **Guidance on "vulnerable groups":** Vulnerable groups include pregnant women, nursing mothers, infants, and young children, as well as people living with HIV/AIDS and tuberculosis.

l. **#12 Direct employment provided by GAFSP, *gender disaggregated* (full-time equivalent)**: This indicator measures the net additional employment gains (for example, jobs provided) owing to implementation of the GAFSP-supported project. The indicator includes direct employment (for example, new jobs directly provided through the intervention)[26]. For direct employment, this indicator counts the jobs that are provided by the service provider or producers that the project works with directly. Direct employment provided considers the provision of temporary jobs as well. Direct employment could therefore be estimated through **net-full time equivalent (FTE) jobs**[27] (for example, the number of FTE jobs generated by the project, both on-farm as well as off-farm through forward and backward linkage employment effects such as those arising from processing, marketing, farm input provision, and related services) **or short-term employment** supported by the activities of the project. **The indicator must be disaggregated by gender.** To the degree possible, the CU encourages SEs to follow the principles of Decent Rural Employment, and encourages related monitoring[28].

m. **#13 Persons receiving capacity development through GAFSP support, *gender disaggregated, organization type* (number of people):** The indicator measures the number of people who received any training organized or provided by the project (formal or informal training degree and non-degree courses, vocational, on-the-job training, field demonstrations, and so on). The training that forms a part of technical assistance includes the transfer of knowledge and/or expertise by way of staff, formal or informal skills training, and research work to support quality of program implementation and impact, support administration, management, representation, publicity, policy development, and capacity building. It may also include short-term agricultural training or nutrition related training[29].

n. **#14 Number of GAFSP-supported substantive deliverables on food security processes completed (number):** This indicator measures the number of policy studies, strategies and investment plans, best practices, and other deliverables that serve to meet or enhance the project's development outcomes to support improved food and nutrition security.

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[26] The definition also includes all-types of farm labor, where applicable. For example, (i) hired without farm ownership claims, (ii) unpaid farm labor, or (iii) salaried labor having ownership claims. The definition of farm labor can vary according to the definition used by respective SE partner.

[27] For Public Sector Window projects, the total number of FTE jobs created by a program can be measured by dividing the net additional days of work due to a program intervention by 240. For Private Sector Window projects, it can be measured as the number of FTE employees as per local definition working for the client company or project at the end of the reporting period. This number includes individuals hired directly and individuals hired through third-party agencies, as long as those individuals provide on-site services related to the operations of the client company. Also, this number includes the FTE worked by seasonal, contractual, and part-time employees. Part-time jobs are converted to FTE jobs on a pro rata basis, based on the local definition (for instance, if the working week equals 40 hours, a 24 hr/week job would be equal to a 0.6 FTE job). Seasonal or short-term jobs are prorated on the basis of the portion of the reporting period that was worked (for example, a full-time position for three months would be equal to a 0.25 FTE job if the reporting period is one year). If the information is not available, the rule-of-thumb is that two part-time jobs equal a full-time job. *Note: employment for the purpose of the construction of the client company's hard assets is not to be included in this indicator. For such jobs, please use the indicator Direct Employment – Construction Phase.*

[28] http://www.fao.org/3/a-bc270e.pdf

[29] It may also include capacity development training of householder through nutrition awareness training.