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## EMERGENCY ASSISTANCE TO MITIGATE THE IMPACT OF EL NIÑO-INDUCED DROUGHT ON LIVELIHOODS OF VULNERABLE AGRICULTURAL AND AGROPASTORAL HOUSEHOLDS IN ZAMBIA

July 2020

SDGs:



Countries:

Zambia

Project Codes:

TCP/ZAM/3703

FAO Contribution

USD 400 000

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Contact Info:

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### Implementing Partners

Ministry of Agriculture (MoA), Ministry of Fisheries and Livestock (MoFL) and the Disaster Management and Mitigation Unit.

### Beneficiaries

Small-scale farmers and Government extension officers.

### Country Programming Framework (CPF) Outputs

Country Outcome 1: To sustain increased agricultural production, productivity and value addition of major crops, livestock, forest products and fisheries based on comparative advantage in different agroecological regions in the country; Country Outcome 2: To create and enhance the sustainable management of the existing agricultural related resource base to be able to efficiently support vibrant and resilient agricultural production systems.



### BACKGROUND

The agriculture sector in Zambia supports the livelihoods of nearly 85 percent of the population, which includes 17 million people located across three agroecological zones. The sector is currently facing an increasing number of hazards, such as recurrent dry spells, floods and pest insurgences, which affect crops and livestock of economic importance. The effects of drought, in particular, are being exacerbated by increased occurrences of El Niño weather patterns. Moreover, drier conditions are likely to lead to increased insurgences of pests, such as the fall armyworm (FAW), and cases of livestock disease.

Prior to the project, the 2018/19 National Contingency Plan, which was jointly developed by the Government, UN agencies and non-governmental organizations, estimated that 609 608 agriculture-dependent households would be affected by extreme weather conditions, with around 280 000 people requiring food assistance. The affected population would also require emergency assistance that enables them to engage in agricultural activities to rebuild their livelihoods. To mitigate the effects of El Niño-induced drought in Zambia, the project sought not only to protect existing livelihood assets, including crops and livestock, against potential threats, but also promote agricultural practices and effective surveillance measures that support production.

### IMPACT

The project was designed to improve livelihoods, enhance food security and increase resilience within Zambian communities that are susceptible to El Niño.

### ACHIEVEMENT OF RESULTS

#### Output 1: Drought-affected communities supported with early maturing and drought tolerant crop inputs

Across targeted communities, 5 935 beneficiaries (2 790 females and 3 145 males) received vegetable seeds (rape, Chinese cabbage, onion and tomato) and 292 beneficiaries (185 females and 107 males) received early maturing maize (Zamseed and Pannar). The number of potential beneficiaries that met the selection criteria greatly exceeded the targeted number under the project, rendering the selection process highly challenging.

Access to water was increased for 36 000 household members and over 100 000 livestock through the construction of 20 boreholes – 17 with hand pumps and three with solar pumps. These water points substantially reduced the work burden of women that were no longer required to travel long distances to access water. Moreover, in seven of the targeted districts, the boreholes facilitated vegetable production during the dry season.

The production capacity and resilience to climate-related shocks were increased for three groups, (i) the Choma tree nursery group, (ii) the Tubeleke women's club and (iii) the villages of Lusitu (one of the driest areas in the country), which were each provided with boreholes, water tanks, sub-immersive water pumps and solar panels.

Finally, Government extension workers were trained on climate smart crop production practices and technologies. Subsequently, 3 415 beneficiaries received training on resilient production methodologies and technologies.

#### Output 2: Vulnerable agricultural communities receive training and inputs to control crop pests including fall armyworm

Although the planned training of trainers (ToT) for MoA staff, awareness raising and training activities for farmers and procurement of pest control inputs were not undertaken, the project financially supported the response to a FAW outbreak. Using this support, the Government focal point conducted an assessment of the outbreak across four districts in eastern Zambia, providing a clearer picture of the situation and allowing for the formulation of an appropriate response by relevant authorities.





**Output 3: Affected agropastoral communities receive inputs and training to manage livestock diseases**

A total of 54 Government extension officers received training on livestock disease management, vaccination and treatment. The extension officers then delivered training to 965 farmers. In addition, 80 field livestock and veterinary officers received training on foot-and-mouth disease (FMD), which covered a range of topics, including sample collection, diagnosis, vaccination, epidemiology and field practice.

Highly vulnerable areas and populations were identified as the first recipients of the “livestock pass-on” programme, under which goats, chickens and fish were procured and delivered to 965 beneficiaries throughout the country. All of the goats and chickens were vaccinated and received drug treatments prior to their distribution.

The project also co-financed a disease surveillance and management campaign with the United States Agency for International Development (USAID) and the FAO Subregional Emergency Office for Southern Africa (REOSA). Surveillance activities were performed by 68 officers from the MoFL, representing 45 districts and covering 116 veterinary camps. The surveillance efforts covered 1 589 569 cattle, 945 000 sheep and goats and 373 000 chickens.

Two monitoring missions were undertaken by FAO staff and experts from the MoFL to ensure the implementation of project initiatives. Additionally, bimonthly monitoring visits were performed by MoFL field extension officers.

**Output 4: El Niño-induced drought affected agricultural and agropastoral communities supported to receive inputs and training in resilience enhancing cropping practices and technologies**

A total of 54 MoA extension officers received training on conservation agriculture. The extension officers, in turn, delivered conservation agriculture training to beneficiary farmers in targeted areas. As highlighted under Output 1, early maturing maize was provided to selected beneficiaries. Bimonthly monitoring of project activities was performed by MoA extension officers through visits to farmers’ fields, while two monitoring visits were undertaken by experts from the MoA and FAO staff.

**IMPLEMENTATION OF WORK PLAN**

Project activities were implemented within the approved budget, with certain activities not being carried out due to time constraints caused by unforeseen delays. The initial assessment of beneficiaries and identification of their needs were completed on schedule. Following the recruitment of project staff, however, delays in implementation were experienced because of the resignation of a consultant and difficulties in replacing the Government focal point following their departure for another programme. The work plan was adjusted accordingly, with inputs such as early maturing maize, for example, being distributed for the rainy season rather than as an early action activity. Finally, as a result of the Government changing its stance on e-voucher dispersion through the Zambia Integrated Agriculture Management Information System (ZIAMIS), inputs were distributed directly to beneficiaries through Government extension officers.

Risks were effectively managed throughout project implementation, with suitable mitigation measures being adopted where necessary. The availability of inputs on the market was closely monitored, with particular emphasis on the emergence of livestock diseases. Environmental risks were communicated to farmers through training and effectively monitored by extensions workers. The project was also designed with social risks in mind, thus promoting the engagement of women and sensitizing local communities to the risk of women not becoming involved in project interventions.

**FOLLOW-UP FOR GOVERNMENT ATTENTION**

A key area for follow-up action is the performance of an impact assessment to determine the effects of project interventions on the lives of beneficiaries. In addition, efforts to monitor the implementation of the cropping practices introduced, climate smart agricultural approaches and the surveillance of animal diseases need to be continued beyond the project.



## SUSTAINABILITY

### 1. Capacity development

The Second National Agricultural Plan (SNAP) promotes a conducive environment for sustainable agriculture and inclusive agriculture development in Zambia. The efforts undertaken during the project specifically addressed Objective 1 (to increase agricultural production and productivity) and Objective 9 (to mainstream environment and climate change in the agriculture sector) of the SNAP. Moreover, the project was implemented through the MoA and MoFL, which work directly with small-scale farmers on the production of crops and livestock. These efforts are expected to continue to strengthen food security and improve livelihoods in the long term. Notably, the expertise developed by Government extension staff will remain in institutional structures and survive beyond the project.

### 2. Gender equality

The project was carried out in accordance with the FAO Policy on Gender Equality by ensuring equal participation in project activities by men and women through the criteria used in the selection of beneficiaries. Involving female-headed households and women's groups was a priority, as was encouraging the full participation of beneficiaries through the planning of meetings and trainings at convenient times. The distribution of livestock followed a raffle system to ensure equal opportunity for eligible applicants to become project beneficiaries. In addition, the water points established under the project largely reduced the work burden of women.

### 3. Environmental sustainability

The project promoted resilience-enhancing cropping practices and conservation agriculture, which are expected to support environmental sustainability.



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### 4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project upheld principles of human rights by emphasizing the involvement of all members of target communities, from traditional and civic leaders to the wider population. Additionally, the right to food and decent employment were supported through the delivery of agricultural inputs and capacity development training to beneficiaries.

### 5. Technological sustainability

Both Government officers and farmers received training on the implementation of highly appropriate technologies and methodologies that support increased agricultural productivity and production. These skills are likely to be further dispersed throughout the country, especially since the Government is in a position to continue pursuing project initiatives without further technical assistance.

### 6. Economic sustainability

The skills developed by beneficiaries can largely be implemented without accruing additional costs in the future. In addition, water is expected to remain available to beneficiaries at a relatively low cost. No additional financial resources have been allocated to the areas targeted under the project.



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## DOCUMENTS AND OUTREACH PRODUCTS

- Monthly progress reports.
- ToT Report for the Ministry of Agriculture Extension Officers.
- ToT Report for the Ministry of Fisheries and Livestock Extension Officers.

## ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

<b>Expected Impact</b>	<b>Improved livelihoods, food security and resilience of agricultural and agropastoral communities in El Niño-prone regions</b>		
<b>Outcome</b>	Improved resilience, production and productivity of vulnerable agricultural and agropastoral households affected by El Niño-induced droughts		
	<b>Indicators</b>	Number of hunger months experienced by beneficiary households	
	<b>Baseline</b>	4 months	
	<b>End Target</b>	2 months	
	<b>Comments and follow-up action to be taken</b>	<p>Key achievements:</p> <ul style="list-style-type: none"> <li>– The capacity of 108 Government staff was built on resilient agricultural practices and technologies.</li> <li>– The capacity of 3 415 vulnerable farmers (1 605 females and 1 810 males) was built on good agricultural practices and technologies.</li> <li>– Access was improved to early maturing maize, vegetables and small livestock for targeted farmers (185 females and 107 males to early maturing maize; 2 790 females and 3 145 males to vegetables; and 511 females and 454 males to small livestock).</li> <li>– The capacity of 1 708 farmers (905 females and 803 males) was developed in climate smart agriculture and livestock production and disease management.</li> <li>– The capacity of 45 government district offices was enhanced in livestock disease surveillance and control.</li> </ul> <p>Follow-up:</p> <ul style="list-style-type: none"> <li>– An impact assessment of the inputs on the livelihoods of the beneficiaries (medium term) needs to be conducted.</li> </ul>	
<b>Output 1</b>	Drought-affected communities supported with early maturing and drought tolerant crop inputs		
	<b>Indicators</b>	<b>Target</b>	<b>Achieved</b>
	Number of farmers that received early maturing and drought tolerant crop inputs.	3 500	Yes (6 026)
<b>Baseline</b>	0		
<b>Comments</b>	<p>Key achievements:</p> <ul style="list-style-type: none"> <li>– Vegetable seeds were provided to 5 935 beneficiaries (2 790 females and 3 145 males) and early maturing maize varieties to 292 beneficiaries in the targeted communities.</li> <li>– Twenty boreholes were drilled (17 were installed with hand pumps, three with water tanks and solar pumps) for the provision of water to over 36 000 household members and over 100 000 livestock, as well as for vegetable production during the dry season in seven targeted districts. The water points provided by the project notably reduced the work burden of women who no longer needed to travel long distances to draw water.</li> <li>– The project increased the production capacity of three groups (who were each supplied with boreholes, complete with water tanks, sub-immersive water pumps and solar panels) and built their resilience to climate change shocks, especially those related to inadequate water supply.             <ol style="list-style-type: none"> <li>1. The Choma tree nursery group (consisting of 13 males and 7 females) now has the potential to plant and supply 150 000 tree seedlings a season within a province that has a number of tree planting/climate change adaptation and mitigation programmes. Their capacity was once 100 000 seedlings, with an effective capacity of 30 000 due to plants drying out and an inadequate supply of water.</li> <li>2. -The Tubeleke women’s club, a group representing 26 households/members (20 female and 6 male), now has the potential to diversify into all-year-round vegetable production.</li> <li>3. -The borehole supplied in Lusitu (one of the driest points in Zambia) will service 27 villages and approximately 150 households. The borehole and dip tank will service 46 000 cattle.</li> </ol> </li> <li>– The capacity of government extension workers was strengthened on climate smart crop production practices and technologies.</li> <li>– A total of 3 415 beneficiaries were trained on resilient production practices and technologies.</li> </ul> <p>Challenges:</p> <ul style="list-style-type: none"> <li>– Early action activities could not be implemented as the project started three months after the planting season had commenced, thus making it difficult to procure field crop seeds for planting at the start of the project.</li> <li>– Difficulties were experienced in establishing specifications for boreholes but the FAO Country Office sought the assistance of UNICEF, who previously had been involved in the drilling of boreholes during water sanitation projects.</li> </ul> <p>Follow-up action:</p> <ul style="list-style-type: none"> <li>– An impact assessment of the interventions on the livelihoods of beneficiaries needs to be conducted.</li> </ul>		



Activity 1.1	Identification and compilation of beneficiaries lists in target districts and registration in ZIAMIS	
	Achieved	Partially
Comments	<p>A total of 3 500 beneficiaries (1 879 males and 1 620 females) from 13 districts were identified, and their data was compiled. The breakdown of beneficiaries was as follows:</p> <ul style="list-style-type: none"> <li>– Central Province, 618 beneficiaries (Chibombo 240, Chisamba 130 and Mumbwa 248);</li> <li>– Eastern Province, 235 beneficiaries (Nyimba 235);</li> <li>– Lusaka Province, 462 beneficiaries (Chongwe 235 and Chirundu 227);</li> <li>– Southern Province, 1 200 beneficiaries (Kazungula 300, Monze 300, Namwala 300 and Sinazongwe 300); and</li> <li>– Western Province, 980 beneficiaries (Mulobezi 325, Mwandu 325 and Sesheke 330).</li> </ul> <p>The selection of beneficiaries was challenging as the number of people meeting the selection criteria exceeded the targeted number proposed during project design. Additionally, the registration of beneficiaries on ZIAMIS may need to be revisited in the future. This could not be undertaken as planned because the Government had decided to review the e-voucher system during the year, reducing the level of farmers' access to the e-voucher system to 40 percent of its previous level.</p>	
Activity 1.2	Procurement of inputs	
	Achieved	Yes
Comments	<p>A variety of vegetable seeds and early maturing maize were procured. The inputs included rape (English giant and rampart), Chinese cabbage (granat and muchili), onion (red creole), tomato (tengeru) and early maturing maize (Zamseed and Pannar). The districts of Mulobezi, Sesheke and Namwala were not included in the first round of procurement but later expressed a need for inputs. This resulted in a later round of procurement and delivery of inputs to the districts.</p> <p>Beyond the project, an impact assessment of the interventions needs to be carried out in order to determine how they affected the livelihoods of beneficiaries.</p>	
Activity 1.3	Distribution of inputs through e-voucher for formally sourced inputs and direct distribution for informally sourced inputs.	
	Achieved	Partially
Comments	<p>All inputs were distributed to beneficiaries via direct distribution through Government extension officers since the Government had decided to review the e-voucher system. The number of vegetable seed (50 g) and maize (10 kg and 5 kg) packages delivered and the number of boreholes established, by district, are described below. Overall, 5 835 vegetable seed packages, 292 maize packages and 20 boreholes were provided.</p> <p><u>Central Province</u></p> <ul style="list-style-type: none"> <li>– Chibombo: 468 vegetable seed packages, two boreholes</li> <li>– Chisamba: 260 vegetable seed packages</li> <li>– Mumbwa: 496 vegetable seed packages</li> </ul> <p><u>Eastern Province</u></p> <ul style="list-style-type: none"> <li>– Nyimba: 240 vegetable seed packages, 60 maize packages, three boreholes</li> </ul> <p><u>Lusaka Province</u></p> <ul style="list-style-type: none"> <li>– Chirundu: 456 vegetable seed packages, one borehole</li> <li>– Chongwe: 480 vegetable seed packages</li> </ul> <p><u>Southern Province</u></p> <ul style="list-style-type: none"> <li>– Kazungula: 1 628 vegetable seed packages, three boreholes</li> <li>– Monze: 3 boreholes.</li> <li>– Namwala: 584 vegetable seed packages, three boreholes</li> <li>– Sinazongwe: 584 vegetable seed packages, three boreholes</li> </ul> <p><u>Western Province</u></p> <ul style="list-style-type: none"> <li>– Mulobezi: 460 vegetable seed packages</li> <li>– Mwandu: 232 maize packages (200 x 5 kg and 32 x 10 kg)</li> <li>– Sesheke: 179 vegetable seed packages</li> </ul> <p>The decision to reduce farmers' access to inputs via the e-voucher system affected the impetus to register new beneficiaries and utilize the platform as a means of delivering inputs. As mentioned above, the main area for follow-up action is the performance of an impact assessment of the interventions on the livelihoods of beneficiaries.</p>	
Activity 1.4	Develop and sign letter of agreement with MoA for implementation of crop related project activities	
	Achieved	No
Comments	<p>Given the delays that emanated from the departure of the Government focal point, a decision was made to fund activities directly from the FAO Country Office.</p>	

Activity 1.5	Training farmers in crop production practices by MoA and input supply companies		
	Achieved	Yes	
	Comments	A total of 1 708 farmers were trained in climate smart crop production practices by MoA field extension staff. Trainings were conducted for two to three days. Practical demonstrations of conservation agriculture and making vegetable beds were delivered. The payment logistics for the facilitation of the training proved more challenging than anticipated. Beyond the project, efforts to verify that farmers are implementing the cropping practices and technologies introduced should be conducted.	
Activity 1.6	Monitoring of the use of inputs in target districts by FAO and MoA staff		
	Achieved	Yes	
	Comments	MoA field extension staff were supported with operational funds to monitor the use of inputs by beneficiaries. Monitoring reports and project activity reports were both submitted in November and December 2019.	
Activity 1.7	Impact assessment of the inputs on livelihoods of the beneficiaries		
	Achieved	No	
	Comments	An impact assessment still needs to be performed by MoA staff as a follow-up action to the project. Since the early action activities could not be carried due to the project starting after the planting season had already commenced, project implementation was delayed. As a result, the impact assessment could not be carried out.	
Output 2	Vulnerable agricultural communities receive training and inputs to control crop pests including fall armyworm		
	Indicators	Target	Achieved
	Number of farmers that received training/inputs to control crop pests including FAW.	6 000	Partially
Baseline	0		
Comments	The main objective was achieved through the delivery of training of trainers for Government officers on crop pest control using organic materials.		
Activity 2.1	Organize a ToT training and planning workshop with MoA staff from the identified districts and other stakeholders		
	Achieved	No	
	Comments	Due to the delayed start of the project, the activity was not carried out.	
Activity 2.2	Undertake training and awareness creation among farmers for control of FAW		
	Achieved	No	
	Comments	Due to the delayed start of the project, the activity was not carried out.	
Activity 2.3	Procurement of pheromone traps, pesticides and distribution to farmers in the target locations		
	Achieved	No	
	Comments	The activity was not completed due to time constraints.	
Activity 2.4	Monitoring of the intervention progress		
	Achieved	Partially	
	Comments	The activity was not completed due to time constraints. However, when the FAW outbreak was reported, the project provided financial support to the Government focal point so that an assessment of the FAW situation across four districts in the eastern part of Zambia could be undertaken. The assessment provided a clearer picture of the African FAW outbreak and informed relevant authorities about the extent of the outbreak, allowing for the determination of appropriate responses.	

<b>Output 3</b>	Affected agropastoral communities receive inputs and training to manage livestock diseases		
	Indicators	Target	Achieved
	Number of pastoral community members that received inputs/training to manage livestock diseases.	1 000	Yes (1 240)
<b>Baseline</b>	0		
<b>Comments</b>	<p>Key achievements:</p> <ul style="list-style-type: none"> <li>– Training on livestock disease management was delivered to 54 government extension officers (45 male, 9 female).</li> <li>– Extension officers trained 965 farmers on livestock production and disease management.</li> <li>– Small livestock and fingerlings were provided to farmers.</li> <li>– Disease surveillance and vaccination of livestock was performed by Government extension officers through the MoFL.</li> </ul> <p>Challenges:</p> <ul style="list-style-type: none"> <li>– An outbreak of Newcastle Disease in chickens resulted in delays in their procurement for beneficiaries.</li> </ul> <p>Follow-up action:</p> <ul style="list-style-type: none"> <li>– Continued efforts need to be undertaken to monitor and manage livestock diseases in the target districts</li> </ul>		
<b>Activity 3.1</b>	Organize a ToT and planning workshop for Ministry of Fisheries and Livestock (MoFL) that will undertake awareness creation of livestock disease management, vaccinations and treatments		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	<p>A total of 54 extension officers (45 male, 9 female) from the MoFL were trained on livestock disease management, vaccination and treatment. In addition, 80 field livestock and veterinary officers and assistants (63 male and 17 female) were trained on and sensitized to FMD. The FMD training was the first of its kind, covering various topics, including an introduction to FMD, FMD clinical diagnosis, FMD lesion aging as a guide to outbreak investigation, FMD laboratory diagnosis and sample collection, biosecurity, epidemiology and outbreak investigation, disease reporting, and FMD vaccines and vaccination. Field practice was also included as part of the training. Ultimately, the officers' understanding of FMD was developed and they became better equipped with the knowledge and skills that were necessary for the rollout of training for farmers during the vaccination of animals.</p> <p>In addition, the project provided supplementary financial resources to the MoFL to support the vaccination of animals in 34 high-risk districts. The funds received were also utilized for the purposes of surveillance and sensitization prior to vaccinations. Information was widely disseminated to farmers, making full use of community radio stations to relay important messages.</p> <p>Beyond the project, efforts to monitor the activities of farmers should be carried out.</p>	



Activity 3.2	Identify high vulnerable areas and vulnerable populations to be supported	
	Achieved	Yes
Activity 3.2	Comments	<p>A total of 13 districts in five provinces were identified as highly vulnerable areas, while 965 beneficiaries (511 females and 454 males) were identified as first recipients of the livestock pass-on programme within the 13 districts. The procurement and distribution of livestock inputs are described below.</p> <p><u>Central Province</u></p> <ul style="list-style-type: none"> <li>– Chibombo: 47 goats</li> <li>– Chisamba: 26 goats</li> <li>– Mumbwa: 50 goats</li> </ul> <p><u>Eastern Province</u></p> <ul style="list-style-type: none"> <li>– Nyimba: 47 goats, 150 chickens</li> </ul> <p><u>Lusaka Province</u></p> <ul style="list-style-type: none"> <li>– Chirundu: 91 goats, 208 chickens</li> <li>– Chongwe: 48 goats, 240 chickens</li> </ul> <p><u>Southern Province</u></p> <ul style="list-style-type: none"> <li>– Kazungula: 146 chickens</li> <li>– Monze: 146 chickens</li> <li>– Namwala: 146 chickens</li> <li>– Sinazongwe: 146 chickens</li> </ul> <p><u>Western Province</u></p> <ul style="list-style-type: none"> <li>– Mulobezi: 100 goats</li> <li>– Mwandu: 55 000 fish</li> <li>– Sesheke: 120 goats</li> </ul> <p>The vulnerable population comprised a large number of individuals. It was therefore difficult to select only 1 000 beneficiaries, as many of those not chosen also met the selection criteria. An unexpected challenge in procurement was faced due to an outbreak of Newcastle Disease in chickens.</p> <p>In the future, efforts should be undertaken to monitor livestock production and the management of farmers.</p>
	Activity 3.3	Procurement and prepositioning of vaccines and drugs
Achieved		Yes
Activity 3.3	Comments	Vaccines and drugs were provided for all the procured chickens and goats prior to their distribution to beneficiaries.
	Signing of LoA with MoFL for implementation of activities	
Activity 3.4	Achieved	No
	Comments	Direct payments through the FAO Country Office were used.
Activity 3.5	Launch of livestock disease surveillance and management campaign	
	Achieved	Yes
Activity 3.5	Comments	<p>The project was used to co-finance disease surveillance activities in July–August 2019, with support from USAID through REOSA. The final campaign was successfully conducted in January 2020. A total of 68 officers from the MoFL were engaged to participate in the surveillance activities. Participants came from 45 districts, covering 116 veterinary camps. The livestock population in the camps covered by this activity was estimated at 1 589 569 cattle, 945 000 sheep and goats and 373 000 chickens.</p> <p>Beyond project closure, disease surveillance measures need to be continuously monitored through reports and impact assessments.</p>
	Monitoring of implementation by FAO and MoFL staff	
Activity 3.6	Achieved	Yes
	Comments	<p>Two missions were carried out by a team of experts from the MoFL headquarters, together with FAO staff, covering all the targeted districts. Bimonthly monitoring visits were carried out by MoFL field extension officers.</p> <p>This initiative is expected to be supported by an impact assessment of the project beyond its closure.</p>

<b>Output 4</b>	El Niño-induced drought affected agricultural and agropastoral communities supported to receive inputs and training in resilience enhancing cropping practices and technologies		
	Indicators	Target	Achieved
	Number of farmers trained in resilience enhancing cropping practices and technologies.	6 000	Partially (1 708)
<b>Baseline</b>	0		
<b>Comments</b>	The capacity of Government extension officers was built in conservation agriculture. The extension officers, in turn, trained farmers in conservation agriculture. The attendance of farmers was affected by the timing of the training, which was conducted during the peak period of the farming season (i.e. November). It is recommended that an assessment of farmers practicing conservation agriculture be conducted in the future. Additionally, efforts to provide training for farmers in resilience-enhancing cropping practices and technologies should be prioritized.		
<b>Activity 4.1</b>	Training and creation of awareness among smallholder farmers in drought prone areas on resilience enhancing approaches including conservation agriculture		
	<b>Achieved</b>	Partially	
	<b>Comments</b>	A total of 54 extension officers (45 male, 9 female) from the MoA were trained in conservation agriculture. Training in conservation agriculture was then delivered to beneficiaries in targeted areas. Future efforts should focus on monitoring the activities of trained farmers and the delivery of training on resilience-enhancing cropping approaches and technologies.	
<b>Activity 4.2</b>	Procurement of inputs for climate smart agriculture practices training		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	Early maturing maize was procured for beneficiaries in two districts, Nyimba and Mwandu. A total of 92 ten-kilograms bags and 200 five-kilogram bags of maize seed were procured.	
<b>Activity 4.3</b>	Distribution of CSA inputs to farmers		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	Maize seeds were distributed to 292 farmers (107 males and 185 females) in Mwandu and Nyimba. The distribution of seeds to beneficiaries was delayed by the clearance of seed specifications. Beyond the project, an assessment of the performance of maize in the fields of beneficiary farmers needs to be performed.	
<b>Activity 4.4</b>	Enhancing ZIAMIS e-extension capability for dissemination of messages to farmers and purchase of bulk SMS		
	<b>Achieved</b>	No	
	<b>Comments</b>	This activity was not carried out due to time constraints.	
<b>Activity 4.5</b>	Monitoring of project activities		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	Bimonthly monitoring visits to farmers' fields were conducted by MoA extension officers. Two monitoring visits to farmers' fields by a team of experts from the MoA, extension officers and FAO staff were also carried out.	

**Partnerships and Outreach**

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