



## Feed the Future Mali Livestock Technology Scaling Program (FTF-MLTSP)

September 2017 monthly update



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December 2017

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The Feed the Future Mali Livestock Technology Scaling (FTF-MLTS) program seeks to contribute to the inclusive growth of the ruminant livestock value chain for increased income, food and nutrition security for 266,000 cattle, sheep, and goat keepers and other value chains actors in three regions in the country (Mopti, Timbuktu and Sikasso), hence lifting them out of poverty. Supported by the United States Agency for International Development (USAID) as part of the US government's Feed the Future initiative, the program sets out to bridge ruminant livestock productivity gaps and to enhance the volume and value of ruminant livestock marketed through a wide-scale dissemination of proven livestock technologies and best practices.

The program is implemented by the International Livestock Research Insitute (ILRI) working with a consortium of public institutions (Direction Nationale des Services Veterinaires, Direction Nationale des Productions et Industries Animales; Laboratoire Centrale Veterinaire, Instituit d'Economie Rurale), private sector organizations (private veterinarians, feed manufacturers) and non-governmental organizations such as the Catholic Relief Services (CRS), the SNV Netherlands Development Organisation, the Association Malienne d'Eveil et de Développement Durable (AMEDD), and the Agronomes et Vétérinaires sans Frontières (AVSF). FTF MLTSP also collaborates with ongoing FTF projects such as Livestock for Growth and other rural development programs in Mali that are pursuing similar objectives in order to create synergies among them.

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### Program management, monitoring and evaluation

Monitoring and evaluation

- The updating of the database of direct beneficiaries of the project for the year 2017 using the ODK is underway in Timbuktu, Alafia and Douekire communes.
- Implementing partners (SNV,AMEDD) held monthly feedback and monitoring, evaluation and planning meetings. SNV Netherlands Development Organisation held two meetings along with two local partners (GEFAD and Prodis) to review past activities and plan for the following month. The activities of the project have gone well during the period and a satisfactory implementation rate of 83% was achieved. However, the field facilitators need further capacity building on monitoring tools (producer notebooks, innovation platform (IP) recording books). To improve their capacity in this area, a working session was held to support IP members in recording the required data. In addition, support missions were organized in the field for the same purpose. The last mission took place on 7 to 8 September in the communes of Kouoro and Gongasso.

Partnership development

- FTF MLTSP and Food for Peace (FFP, Harande) programs held joint planning meetings that led to the development of a scope of work regarding the up scaling by ILRI of livestock resilience best practices and options in Harande zone of influence.
- FTF MLTSP and L4G held meetings to expand their collaborative work. ILRI will upscale agricultural IPs in livestock for growth (L4G) target communes during 2018. ILRI is also involved with L4G in the consortium working with the developing local extension capacity program for the development of digitalized extension materials to amplify the programs extension out reach.
- ILRI has also met with the World Bank PRAPS program to explore areas of potential collaboration with two major outcomes. First, FTF MLTSP and PRAPS have agreed to jointly organize an event on livestock market information systems. Second, ILRI and PRAPS will join efforts to analyse animal health delivery systems in Mali with the view of making recommendations on ways to improve the performance of vaccination campaigns.

### **Program interventions**

### **Animal health**

### Producing and delivering a thermostable vaccine against Peste des Petits Ruminants (PPR)

#### Vaccine for internal control

The project produced three batches of vaccines against PPR which are being subjected to an internal control at the LCV, namely: Batch 00 (ILRI batch), Batch 001 (conventional vaccine Lyophilizedat LCV) and Batch 002 (LCV Xerovac PPR vaccine). So far, the internal control for these lots of vaccine is at the stage of the analysis of the thermostability for the comparison on 28 days of the initial titres with titres obtained after passage through different temperatures (37°C, 40°C and 45°C). A series of incubation reading has already been made on periods ranging from 48 hours to 4 days for the first week. The results of these analyses are available. The second stage of incubation reading is ongoing.

#### Vaccine for external control

The external control of the different lots of the vaccine mentioned above will be carried out by PANVAC. In addition to the conventional safety, sterility and thermostability analysis, a test for residual moisture was added in the request to PANVAC. A protocol for the transport of samples is being validated and the administrative and customs documents are being prepared for delivering the vaccine to PANVAC on 29 September 2017. The results are expected in late October 2017.

#### Animal experimentation

The animal experimentation to determine the level of sero-conversion has been designed and animals are being screened for their immunological suitability.

### Supporting the prevention of major ruminant livestock epidemic diseases

#### Planning of vaccination campaigns

A meeting of the presidents of the IPs and private veterinarians was held on 9 September in target communes in the circle of Sikasso. SNV and AMEDD facilitated the meeting that aimed at informing IP members on arrangements for the organization of the 2017–18 vaccination campaign.

The main conclusions of the meeting included:

- raising awareness of livestock producers,
- conducting a village livestock census,
- making the choice of vaccination sites and site for the launching of the campaign, and
- organizing the launching of the campaign.

The 13 participants of the meeting included 6 IP chairpersons, I administrative secretary, 3 veterinary agents, ILRI, SNV, AMEDD and GEFAD agents. Participants pointed out the need to quick start the campaign with the recent confirmation of an outbreak of PPR in the area from animals originating from Kouoro Barage and the suspicion of an outbreak of CBPP

to Lobougoula (Sikasso). At the end of the meeting, it was decided to organize a visit to livestock producers to sensitize them on the significance of the livestock census. In each commune, the veterinary agent and a member of the IP were designated for this mission that will begin in SNV target communes from the week of 18 September.

#### Number of animals vaccinated in September

All reports from public and private veterinarians in project target communes were not yet received by the time of the writing of this this report. Hence the limited reported number of animals vaccinated.

C	Target liv	estock population	Number vaccinated in September			
Communes	Cattle	Sheep and goats	CBPP	PPR	Pastobov	Pastovin
Natien	3,400	3,800	0	0		
Pimperna	2,300	1,250	0	0		
Diamatènè	2,000	1,450	0	0	0	
Kafozièla	1,100	1,180	0	0	0	
Zangaradougou	1,500	1,650	0	0	0	
Farakala	3,500	2,500	0			
Kouoro	8,200	17,000	0			
Gongasso	6,000	19,000	0			
Fama	4,800	15,000	0			
Zangasso et sinkSolo	15,000	13,000	0			
Kapala et kolonigué	10,700	32,370	0			
Nafaga et N'goutjina	6,000	10,000	0			
Sio	19,538	27,465	0	0	0	
Djenné	14,582	36,430	112	0	221	0
Ouro Ali	7,000	9,000	0	50	0	
Famaye	11,000	27,500	631	1,095	1,095	
Fakala	27,000	29,000	1,075	132	1,986	28
Nema Badegn	39,400	43,000	890	1,500	0	2,000
Kewa	30,000	37,000				0
Soye	49,306	35,303				0
Socoura	16,000	23,000				0
Koubaye	17,300	22,000	0	0	0	0
Soumpi	9,000	44,000				
Somboudou	18,000	22,000				
Douekire	7,000	15,500				
Kaneye	3,500	23,000				
Alafia	10,582	26,582				
Timbuktu	12,221	34,559				
Total	355,929	562,539	2,708	2,777	3,302	2,028

Table 1: Number of animals vaccinated in September 2017

### Sero-monitoring of CBPP and PPR

To assess the vaccination campaign against CBPP and PPR, an epidemiological survey was conducted in 2016 with the sampling of 1,500 cattle and 1,500 small ruminants not vaccinated (baseline) in Mopti and Sikasso. The baseline study was followed by post-vaccination surveys that sampled 1,500 vaccinated cattle against CBPP and 1,500 small ruminants vaccinated against PPR. Samples were analysed using cElisaserological tests that made the following results available this month (see Figures I and 2).

Figure 1. Baseline and post-vaccination prevalence of CBPP.

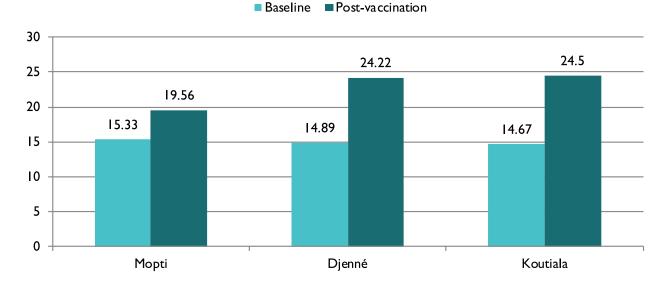
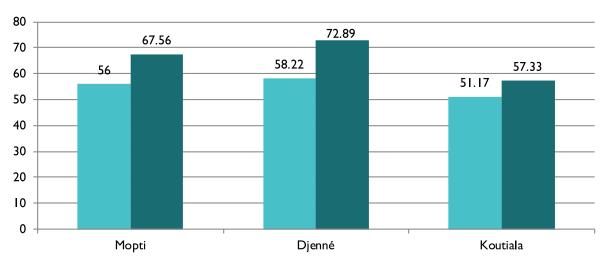


Figure 2. Baseline and post-vaccination prevalence of PPR.



#### Baseline Post-vaccination

# Facilitating the formation and operation of community animal health platforms (CAHPs)

In Timbuktu, during the month of September 2017, two workshops were held to establish IPs in Soboundou and Soumpi target communes, which developed the plans of action of IPs. In Sikasso, AMEDD and SNV jointly organized IP meetings for planning vaccination campaigns with support from professional and technical services. The vaccination campaign planning meetings have been appreciated by: the agents, the technical services, the commune and village authorities and the livestock producers.

### Feeds, feeding and improved management practices

# Facilitating the introduction and the up scaling of improved dual-purpose crops varieties and forage species

#### Establishing farmer field schools (FFSs)

Ninety-one farmer field schools (FFS, 0.5 ha/plot) were established involving 4 target food-feed crops selected for distribution in 92 villages covered by AMEDD.

#### Monitoring and evaluation of fodder crops

The monitoring of fodder plots was started in August and continued during the month of September. Joint teams comprising the leaders of the IPs and the technical support structures were mobilized to implement this activity, in accordance with the concept of beneficiary accountability advocated by the project. Monitoring activities were carried out in fodder plots located in the communes of Djenné and Femaye. These plots were managed by 73 producers who planted about 47.8 ha (cowpea 25 ha and sorghum 22.8 ha).

The teams mobilized for the implementation of the activity consisted of:

- Youssouf Bocoum, president of IP of Djenné; Boubacar Koïta, IP finance; Massama Sinayoko, agricultural agent of Djenné; and Mahamane Touré, facilitator of Prodis Consult, in the commune of Djenné.
- Allaye Dicko, Femaye's IP president; Nissama Farama, IP administrative secretary and Femaye agricultural agent; and Boubacar Diawara, facilitator of Prodis Consult, in the commune of Femaye.

In the communes covered by CRS in Mopti, 44 farmer field schools and demonstration (FFSD) plots were scattered in 22 villages of Fakala, Sio and Socoura. The monitoring activities involved six additional replication plots distributed as follows: two sorghum plots in Fakala commune, two cowpea plots in the commune of Sio and two groundnut plots in the municipality of Socoura.

The visits to the replication plots had the following objectives:

- assess to what extent technologies were taken up by the producers and
- make proposals for improvement.

The FFSD plots were monitored by the CRS supervisor and the DRA extension agents. Findings from the monitoring included:

- The retardation in the growth of sorghum plants due to low and poor distribution of rainfall (especially at the plots of the commune of Socoura);
- The relatively low germination rate (empty pockets) on some cowpea plots always linked to the poor distribution of rainfall.

In relation to the vegetative state of the crops, it was observed that cowpea is at the flowering stage and has a good overall appearance and sorghum is at the mounting stage and was at a similar satisfactory state. The following main points were recommended: (1) increase the number of field visits by DRA monitoring officers to provide advice during this critical cropping periods; (2) collect data and inform the CRS supervisor as required; and (3) leave small reserves of seed by varieties with the trainer producers to fill the empty pockets.

#### Geolocation of fodder plots

Activities aimed at geo-referencing fodder plots have been carried out with the aim of having exact geographical locations of areas planted using GPS coordinates to increase the reliability of the information gathered on the ground and to give more traceability to the activities implemented in the project area. In this context, 78 plots (44 cowpeas and 34 sorghum) were georeferenced for a total area of 49.3 ha in Mopti.

In Sikasso, monitoring activities on 3,269 agro-pastoralists identified (2,011 in the 7 communes of Koutiala and 1,258 in the 5 communes of the Sikasso circle are about to be completed). The following surface areas were planted with specific crop in 12 communes covered by AMEDD.

Crops	Koutiala	Sikasso	Total		
Groundnut	2.18	2.5	4.68		
Brachiaria	52.3	40	92.3		
Cowpea	140.77	178	318.77		
Sorghum	502.75	343	845.75		
Total	698	563.5	1,261.5		

Table 2: Surface planted with specific crops in 12 communes

#### Monitoring of Bourgou production plots

In the communes covered by CRS, overall, there is a fairly satisfactory germination rate at the Bourgou sites. With the beginning of the flood, we already observed the presence of weeds (Oryzabarthii) commonly called Secco in Peulh, especially at the site of Dio. Producers were advised to carry out the weeding of Bourgou plots to promote a good emergence of young shoots. The vegetative state of the Bourgou plants is good overall, the growth and development of the plants continue normally. The absence of local conventions is, however, a key challenge to the efficient and effective management of Bourgou plots.

In Timbuktu, there are currently 272 ha of Bourgou harvested by the entire 23 beneficiary farmer organizations, 203 ha of which were left for the 10 new partner cooperatives identified this year in Soboundou and Soumpi communes. The new partner cooperatives were supplied with Bourgou seeds (150,000 cuttings of Bourgou each) and motor pumps (5 motor pumps, 1 motor pump for 2 farmer organizations) for the watering of the Bourgou cuttings before the occurrence of floods. They also benefited from training provided by the DRPIA on Bourgou production technical itinerary. In 2016, 69 ha area is planted by the 13 farmer organizations.

From a socio-economic standpoint, the total number of jobs created by the 23 partner farmer organizations is estimated at 1,091, of which 169 were workers with a salary. Specifically, for the 10 partner farmer organizations identified this year, there are 868 people mobilized, including, (i) 85 paid for maintaining pipelines with an average working time of 2.2 days, and (ii) 814 persons mobilized for transplanting of 203 ha of Bourgou, of which 101 were paid with an average working time estimated at 2.2 days.

#### Training of producers

In Mopti, activities involving the treatment of cowpea enabled to reach out to 148 trainer-producer including 36 women in FFS. Throughout the sessions, the trainers put particular emphasis on the following areas: (1) the importance of the treatment of cowpea with Decis taking into account the required frequency of treatments because of the low persistence of the product; (2) details on the use of the Decis and the need to apply recommended doses.

In Sikasso, the training of 3,269 producers on the technical aspects of fodder and forage production was carried out through FFS. A total of 460 producers were trained on the integrated technological packages.

# Promoting up scaling of integrated packages for improved cattle, sheep and goat productivity

#### Training on integrated packages

Integrated technological packages are designed to improve the productivity of the cattle, sheep and goats (with special focus on management of lactating female ruminants, cattle and sheep, fattening and maintenance of draught animals). Following training of trainers, training of farmers on integrated packages was carried out in various target communes in Mopti and Timbuktu. In Mopti, under the leadership of SNV, training on integrated packages started on 15 September 2017 in Natien commune and will continue in the other five target communes (Fakala, Gongasso, Kouoro, Djenné and Femaye).

Each training session includes four thematic areas and lasts for four days, a theme per day. There are 25 participants per theme or 100 participants per commune. Each training session is performed by an agent of the Service Local Production et Industrie Animale (SLPIA) and a veterinary officer. The commune IP provides the training with support from SNV through its project manager and its local partners (GEFAD and Prodis). Supervision of the training course was done by the head of the SLPIA and by the Veterinary Service, one day per commune.

In the commune of Femaye and around the city of Djenné, training on integrated packages in sites initially identified— Taga, Kounti, Waya, Dorobougou, Niala'kil and Diabolo—could not be carried out as planned, for security reasons. Instead, the training took place in the city of Djenné. Following the assessment, participants to the training workshop in various themes expressed their satisfaction. On average, 66% of participants said they understand the issues and are very satisfied with the content of the training. In Timbuktu, AVSF supervised the training of 139 livestock producers on integrated packages including: 50 fatteners from Timbuktu commune, 28 from Alafia, 44 from Douékiré, 17 milk producers and managers of draught animals.

# Developing capacity of producers on feed processing and promoting private small-scale feed manufacturers

The training of producers and local manufacturers on feed grinders using the model from Niger triggered new dynamics in Mopti and Sikasso. First, there have been a high demand of feed grinders from other FTF MLTSP target communes and from other organizations who placed orders for grinders from two manufacturers trained by the project: Mr Ousmane Djire of SOKAFON (Societe Cooperative Artisanale des Forgerons de l'Office du Niger) manufacturing agricultural equipments and Mr Diabate from Kouthiala. Second, feed grinders are being produced in Niono and Kouthiala to meet the demand of 26 private feed grinders. Negotiations are ongoing.

### Market access

# Revitalizing the livestock market information system (LMIS) to capture market incentives

#### Training of members of IPs on the use of LMIS

The training of trainers of members of the IPs in project target communes was carried out with the aim to introduce LMIS to various participants, in particular the members of the IPs, so that they could claim ownership of the tool and have better access to critical livestock market information in real time. The training workshops brought together about 90 members of IPs, including 15 radio broadcasters/animators. Other ILRI partners such as AMEDD, CRS, SNV (Prodis Consult) and AVSF and OMA agents also participated in the training which was scheduled as follows:

- On 18 September 2017 at the regional Chamber of Agriculture (CRA) of Mopti by OMA and DNPIA. Nine CRS IP members participated in the meeting with three members per commune plus the CRS field supervisor. Other platforms involved in the project were also represented (SNV, radio presenters/animators, members of the Djenné, Femaye and Timbuktu platforms).
- On 14 September 2017 in the meeting room of the regional Directorate of Agriculture of Sikasso. Participants
  include 10 members (2 from the IPs of Farakala, 3 from Natien, 3 from Gongasso and 2 from Kouoro); 4 animators
  of most listened radio stations in target communes and 1 GEFAD extension agent.
- On 16 September 2017 in Koutiala with the participation of three members per IP, including one trader and nine radio presenters from Koutiala and one officer/agent per support partners also participated in the training.

#### Collecting market information and access to market information

The 17 selected livestock markets were regularly monitored by the enumerators. Information on average animal prices by species, breed, category, gender and conformation is available and accessible from cell phones and on the website <u>www.malibetail.net</u>. About 1,100 SMS were sent by market collectors and more than 600 requests for information were made on the server. It should be emphasized that this number has been stimulated by the training sessions we have just held in the circles of Sikasso, Koutiala and Mopti.

Market		Cattle			Sheep			Goats	
	No. presented	No. sold	Per cent sold	No. presented	No. sold	Per cent sold	No. presented	No. sold	Per cent sold
Fatoma	4,100	3,241	79	8,768	6,341	72.3	4,925	4,125	83.7
Konna	1,296	1,025	79	3,872	3,077	79.46	2,371	I,683	70.98
Sofara	1,204	1,001	83.13	2,474	1,966	79.46	1,153	819	71.03
Somadougou	1,537	1,421	92.45	1,426	1,228	86.11	883	814	92.18
Mougna	849	697	80.91	399	311	77.94	452	369	81.63
Djenné	226	148	65.48	1,201	923	76.85	600	391	61.18
Sikasso	26,050	18,480	70.94	28,565	3,606	12.62	1,453	945	65.03
Niena	6,447	6,447	100	2,333	2,075	88.94	2,075	1,939	94.86

#### Table 3: Livestock market information

#### Managing server and data quality control

Coordinators of the OMA in collaboration with the DNPIA staff and the regional controllers carried out these activities. During this month, four field visits were made by the controllers to ensure not only regular monitoring of markets but also reliability of data. During these field visits, the controllers discuss with the livestock traders as well as livestock producers on the state of supply of the markets and the level of the prices. They use their missions to verify the old data sheets to ensure the accuracy of the data sent to the server. The observed anomalies are corrected on site with the controllers.

#### Disseminating information on local radios

For the month of September 2017, about 60 radio programs were released. It should be noted that we will very soon increase the number of radio programs by 15 following the participation of the animators of these radios in our training workshop.

# Facilitating the development of competitive cattle and sheep production and marketing models

To prepare the dialogue between the IPs of Djenné and Femaye and the facilitator of loans to financial institutions, a meeting was held on 14 September 2017 between the Prodis Consult team and the ILRI zone coordinator based in Sévaré. A consultative meeting is scheduled for the second week of October, aiming at identifying the support needs of each stakeholder and to plan the rest of the process to facilitate access to credit for:

- livestock feed manufacturers,
- · livestock traders, and
- · food processing units including women's groups benefiting from the feed grinders.

A total of 467 fatteners were registered and the list was given to the FFSWE office (Abu Konate of Sikasso) for entry in their database and for analysis to retain the most suitable candidates to receive a loan for the fattening campaign. This analysis needs to be completed urgently to enable fatteners to have access to financial resources they need to engage in fattening operations on time.



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