USAID Senegal: Buy-In to the Feed the Future EnGRAIS Project

Feed The Future Senegal DUNDËL SUUF Project

Exchange visit on a demonstration plot of UDP technology on rice with women's mobilization (Baïtilaye)

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QUARTERLY REPORT

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ACRONYMS

AEZ	Agro-Ecological Zone
APESEN	Association des Professionnels des Engrais du Sénégal
DS	Dundël Suuf
ECOWAS	Economic Community of West African States
EnGRAIS	Enhancing Growth through Regional Agricultural Input Systems
FDP	Fertilizer Deep Placement
GoS	Government of Senegal
IFDC	International Fertilizer Development Center
IR	Intermediate Result
ISRA	Institut Sénégalais de Recherches Agricoles
ISFM	Integrated Soil Fertility Management
LIP	Local Implementation Partners
LOP	Life of the project
MAER	Ministère de l'Agriculture et de l'Équipement Rural
MD	Microdose
PNIASAN	Programme National d'Investissement Agricole pour la Sécurité Alimentaire et Nutritionnelle
PRACAS	Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise
PSE	Plan Sénégal Émergent
UDP	Urea Deep Placement
US	United Stated
USAID	United States Agency for International Development
WARM	West Africa Regional Mission
ZoI	Zones of Influence

1. Summary of the project

The Government of Senegal (GoS), through the *Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise* (PRACAS), the *Programme National d'Investissement Agricole pour la Sécurité Alimentaire et Nutritionnelle* (PNIASAN) and the *Plan Sénégal Émergent* (PSE), continues to support the agricultural sector through a national program of subsidies for seeds, fertilizers and agricultural equipment with the objective of sustainably increasing production to achieve self-sufficiency in rice, maize, millet, sorghum, onion and potato, and even exporting surpluses of horticultural products.

To contribute to the goals of these GoS programs, the USAID/West Africa Regional Mission (WARM) signed, on September 30, 2019, an amendment to the Enhancing Growth through Regional Agricultural Input Systems (EnGRAIS) cooperative agreement to incorporate a buy-in from USAID/Senegal to fund the Feed the Future Senegal Dundël Suuf project for a period of 3 years (October 2019 - September 2022). The aim of Dundël Suuf (DS) is to increase agricultural productivity by promoting an inclusive and sustainable reduction of hunger, poverty and malnutrition while its strategic objective remains to increase the availability and use of new quality fertilizers through efficient private sector-led supply systems to improve and maintain soil fertility in Senegal. The project activities are organized into three major components which are: (1) Improved and appropriate fertilizer formulas developed and made available to farmers, (2) Proven and environmentally sound fertilizer products and technologies disseminated and upscaled, (3) Improved fertilizer policy and regulatory environment.

In addition to the major challenges facing by the GoS for the development of agriculture, there is also the global health challenge related to COVID-19. To help the GoS to mitigate the negative effects of this pandemic, IFDC proposed to USAID/Senegal a concept note (CN) on "Food Security Response to COVID-19". The CN focuses on two major axes (1) facilitating the widespread diffusion of the fertilizer technologies that improve the agriculture productivity; (2) Minimizing distortions in the agricultural input supply chain through the Senegal COVID-19 Fertilizer Watch.

The main beneficiaries are small farmers, input supply chain actors, extension and research agents and vulnerable groups namely women and youth. The project operates in the five Feed the Future Zones of Influence (ZoIs) which are Casamance, Senegal Oriental, the Peanut Basin, Niayes and the Senegal River Valley. The target crops are dry cereals, rice, and vegetables.

2. Results Framework

The results framework (Figure 1) presents the goal and strategic objective of the project.
To meet this goal and objective, the following three intermediate results (IR) and four cross-cutting activities are to be achieved:

- RI 1: Improved and appropriate fertilizer formulas developed and made available to farmers,
- RI 2: Proven and environmentally sound fertilizer products and technologies disseminated and upscaled, and
- RI 3: Improved fertilizer policy and regulatory environment

The cross-cutting issues are:

- Improved access of women to productive resources,
- Increased participation of young people in agriculture,

- Communication and information sharing more effective.

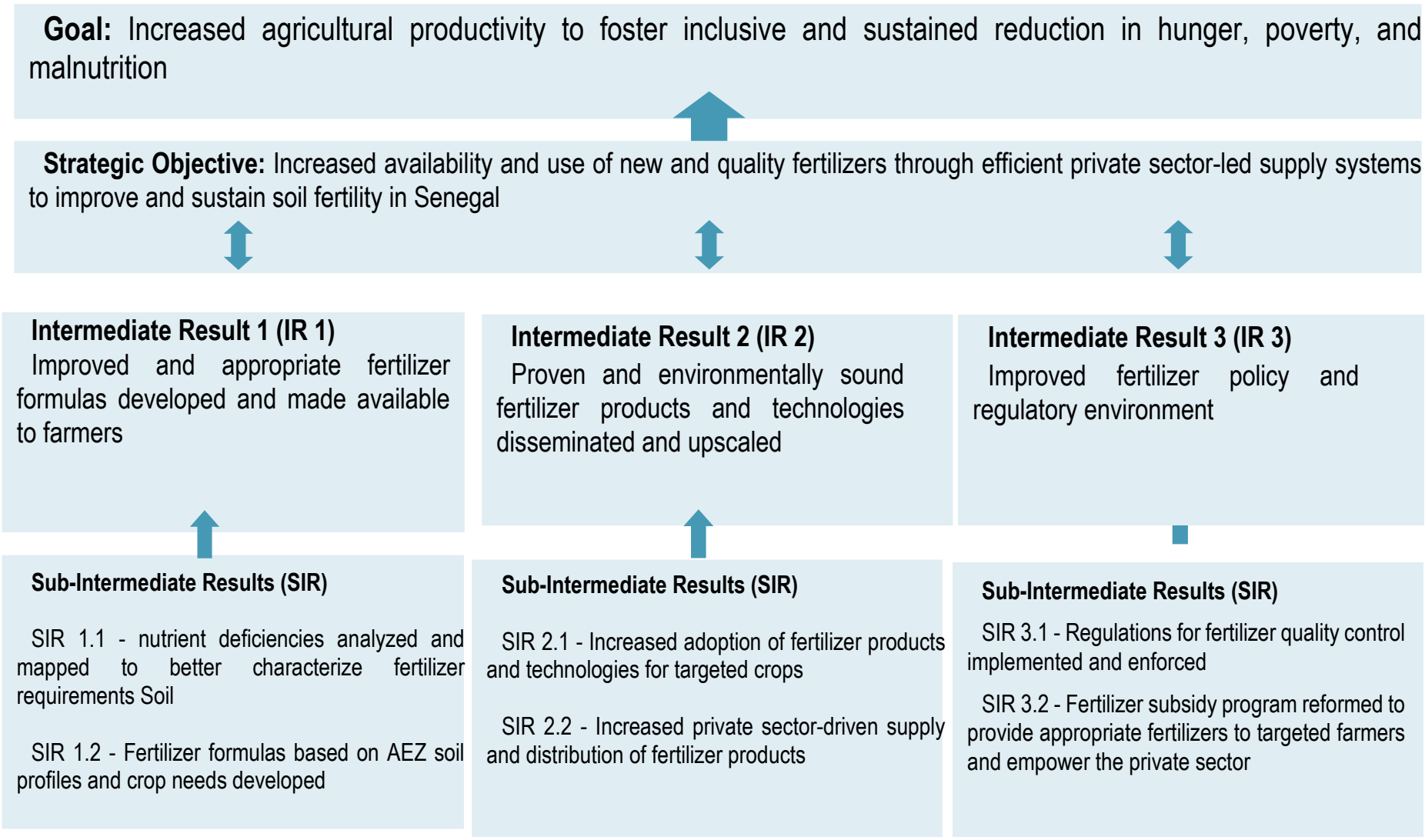

Figure 1. Dundël Suuf Project Results Framework

3. Key achievements

Over the first quarterly of the second year of implementation the main achievements are as follows:

- 1912 soil samples were collected and ready to be sent to CropNuts Lab for analysis
- 3 soil nutrient deficiency maps for the regions of Saint Louis, Louga and Matam are available.
- 15 local implementing partners (LIPs) selected to carry out the off-season activities such as:
    - training of 52,740 farmers
    - implement 1,170.35 hectares demonstration and extension of UDP and MD technologies.
- 2 training videos on UDP and MD principles as well as M&E and budget management available.
- An Online Monitoring, Evaluation and Learning System developed.
- A database of agrodealers operating in Senegal available.
- Dundël Suuf AWPB for 2021 finalized and submitted.

The main achievements are presented in detail and by intermediate results as follow.

4. Intermediate Result 1(IR1): Improved and appropriate fertilizer formulas developed and made available to farmers

The Senegalese Agricultural Research Institute (ISRA) is the partner in charge of field activities related to the soil fertility mapping and works closely with the National Institute of Pedology (INP).

4.1. IR 1.1 Nutrient deficiencies analyzed and mapped to better characterize fertilizer Soil requirements

4.1.1. Planned activities and level of implementation

Table 1 : Planned activities and level of implementation

Activities	Level of Implementation
RI 1.1 Analysis and mapping of soil nutrient deficiencies to better characterize fertilizer requirements	
Soil sampling	All the 2500 samples targeted have been collected
Soil analysis	588 of the soil samples have been analyzed

Soil deficiency mapping	In progress, will be finalized after analyses of the remaining samples. For now, only 3 maps are available for Matam, St Louis and Louga regions
Capacity building within ISRA	In ISRA's internal training program

According to ISRA report, the results of analyses of the first samples taken from three border regions in northern Senegal (figure 2), namely Saint Louis, Louga and Matam (in dark orange), show that soils in this part of Senegal are mostly acidic with neutral and few basic pockets. Also, their nutrient contents are low and decrease significantly from north to south.

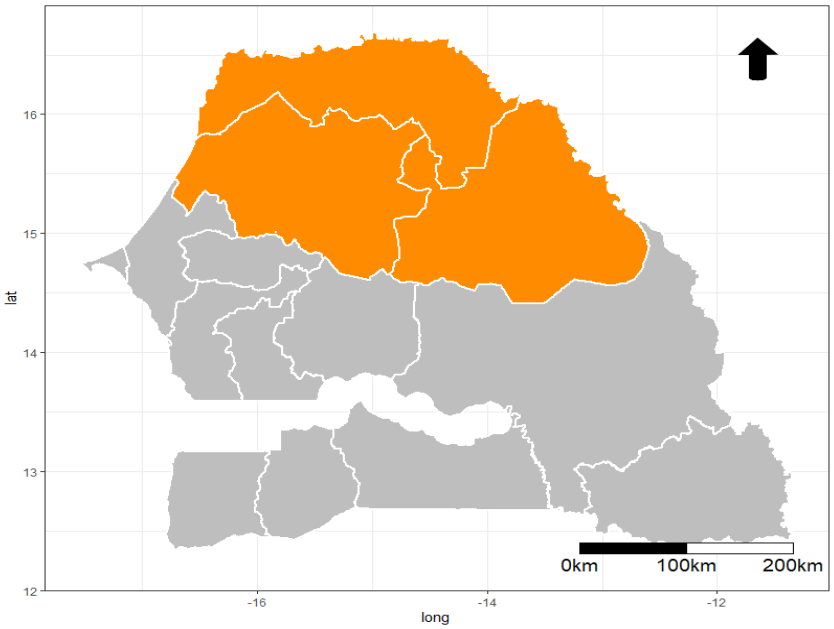

Figure 2*: Map of Senegal with the northern sampled area in dark orange*

4.1.2. Level of execution toward the target

In all tables, gap is the difference between realization and targets while rate is equal to gap over target

Table 2: Level of achievement of targets

Indicators	Q1/FY2				Annual				Achievement		**Target of the LOP****	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	**FY1**	*To date		
Number of soil samples analyzed	2,500	588	-1,912	24%	2500	588	-1,912	24%	0	588	2500	A total of 588 samples have been analyzed. The 1912 samples will be analyzed, and productio
Number of soil nutrient deficiency maps	15	3	-12	20%	15	3	-12	20%	0	3	15	

												n of maps are expected from April 2021.

* Achievement to date is the cumulative achievement of FY1 and these of the quarterly Qi of FY2.

** LOP: Life of the project

4.2. IR 1.2 Fertilizer formulas based on AEZ soil profiles and crop needs developed

(no activities planned for this quarterly)

5. Intermediate Result 2 (IR2): Proven and environmentally sound fertilizer products and technologies disseminated and upscaled

5.1. IR 2.1 increased adoption of fertilizer products and technologies for targeted crops

5.1.1. Planned activities and level of implementation

Table 3: Planned activities and level of implementation

Activities	Level of Implementation
IR 2.1 Increased adoption of fertilizers and technologies for target crops	
Evaluation of the 1st demonstration phase	Collection and data analysis in progress
Selection of sites, targeted beneficiaries, and appropriate AIP for COVID impact mitigation activities	This was the major activity during this quarter. LIPs were asked to make proposals for off-season (dry season) activities. The proposals were on market gardening and rice production under MD and UDP technologies. Amendments and new contracts are prepared and signed.
Information, sensitization, and training of stakeholder	28,644 individuals trained
Characterization of selected beneficiaries	Done
Digitalization approach for training in UDP/MD fundamentals:	Two (2) films are produced for the implementation of the digitalization approach of the cascade training of producers on MD and UDP
Implementation of Fertilizer Deep Placement (FDP) and MD demonstration plots	Distribution of productivity-enhancing kits to farmers for demonstration and extension.
Baseline of the COVID-19 indicators	Data provided by Dundël Suuf baseline study
Implementation of COVID impact mitigation activities	Ongoing
Organization of Exchange Visits (EV)	125 Exchanges visits were organized involved 2,721 people

5.1.2. IR 2.1 Level of execution toward the target

The expected indicators for the quarter are indicated on the followign table

Table 4: Level of achievement of target

Indicators	Q1/FY2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
Number of individuals participating in USG food security programs	39,856	52,740	12,884	132%	94,894	52,740	-42,154	56%	9,149	61,889	330,826	This quarter was dominated by the off-season vegetable season activities preparation Data concerned training session of the fundamentals of UDP, MD and ISFM technologies. However, some training sessions on harvesting techniques and post-harvest activities as well as exchange visits were organized by the implementing partners.
Number of fertilizer-based technologies developed and delivered to farmers through the private sector	3	3	0	100%	11	3	-8	27%	3	3	3	FDP, MD and ISFM technologies are being demonstrated with the implication of the private sector as input providers.
Number of technology transfer sites/ demonstration sites established	2	95	93	4750%	30	95	65	317%	624	719	100	The importance of the gap is mainly due to the large number of demonstration plots under MD

Indicators	Q1/FY2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
Number of people in the farming system who have applied FDP	200	827	627	414%	4,000	827	-3,173	21%	125	952	13,775	Through its implementing partners the project has been able to mobilize more farmers particularly women's groups around market gardening activities. The areas of rice under UDP have also been increased.
Number of people in the farming system who have applied MD	10,620	12,890	2,270	121%	17,700	12,890	-4,810	73%	1,827	14,717	60,610	
Number of people in the farming system who have applied ISFM	25,580	13,717	-11,863	54%	57,300	13,717	-43,583	24%	1,828	15,545	201,115	
Number of hectares under FDP	60	204.03	144	340%	1,200	204.03	-996	17%	48.80	252.83	4,934	For Q1, the focus is on the off season cropping mainly vegetables with the use of MD
Number of hectares under MD	984	381.15	-603	39%	19,680	381.15	-19,299	2%	469.94	851.09	66,609	
Number of hectares under ISFM	2,536	585.18	-1,951	23%	50,720	585.18	-50,135	1%	518.74	1,103.91	175,157	
Number of people trained on the fundamentals of FDP and ISFM	1,200	23,630	22,430	1969%	24,000	23,630	-370	98%	4,852	28,482	164,400	Training on the fundamentals of FDP, MD and ISFM technologies has reached a wide range of

Indicators	Q1/FY2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
Number of people trained on the fundamentals of MD and ISFM	38,940	28,644	-10,296	74%	70,800	28,644	-42,156	40%	4,262	32,906	166,200	producers. Even if the MD and ISMF target is not reached, the cumulative of the two levels of training gives a very satisfactory result.
Number of hectares under FDP demonstration and related best agricultural practices	1.0	1.0	0	100%	20.0	1.0	-19	5%	98	99	304	Areas of demonstration plot under FDP on off-season
Number of hectares under MD demonstration and related best agricultural practices	3.6	3.6	0	100%	72.0	3.6	-68	5%	421	425	240	Areas of vegetable crops demonstration plot under MD on off-season
Number of people who participated in the demonstrations of the FDP and the related best agricultural practices	20	55	35	275%	400	55	-345	14%	2,391	2,446	7,900	The level of participation per demonstration plot has improved with the involvement of more producers.

Indicators	Q1/FY2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
Number of people who participated in the demonstrations of the MD and the related best agricultural practices	98	1,350	1,252	1378%	1,951	1350	-601	69%	1,583	2,933	6,000	The importance of the positive gap for QI is mainly due to the large number of demonstration plots on vegetables under MD
Number of people who have participated in exchange visits on FDP demonstration plots	50	2,007	1,957	4,014%	1,000	2,007	1,007	201%	133	2,140	19,000	This quarter recorded 125 exchange visits, on FDP and MD plots. These visits were organized by the implementing partners in all the AEZs during the rainy season activities. A total of 2,721 individual have participated at those activities.
Number of people who have participated in exchange visits on MD demonstration plots	275	714	439	260%	5,500	714	-4,786	13%	459	1,173	12,000	

The presentation of the microdosing and fertilizers deep placement technologies and their application is an important step in the "cascade" training sessions as it is an opportunity to introduce the participants to the project-promoted technologies. The practical stage of technology demonstration in the field, with the producers, reinforced the knowledge of the participants. The sharing of experience between participants is a high point during the training sessions.

5.2. IR 2.2 Increased private sector-driven supply and distribution of fertilizer products

5.2.1. Planned activities and level of implementation

Table 5 : Planned activities and level of implementation

Program Component/ Activities	Level of Implementation
RI 2.2 Increased supply and distribution of fertilizer products by the private sector	
Characterizing and mapping Agrodealers operating in Senegal	**R**eport available
Facilitate the availability and operationality of urea super granule and applicators	Ongoing activity
Strengthen the capacity of super urea pellet producers and fertilizer suppliers	Ongoing. A capacity strengthening action plan
Facilitate setup and operation of (national) fertilizer platform	Ongoing, seven regional fertilizer platforms are set up. The national platform will come from the regional platforms
Minimizing distortions in the agro-input supply chain: Senegal COVID-19 Fertilizer Watch	Will be conducted in collaboration with IFDC Fertilizer Watch Platform

5.2.2. IR 2.2 Level of execution toward the target

The expected indicators and level of execution for the quarter are listed in table 6:

Table 6 : Level of achievement of targets

Indicators	Q1/Y2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
Total volume of urea briquettes sold through input suppliers because of the FDP	33.90	23.05	-10.8	68%	678	23.05	-654.95	3%	6.33	29.38	9,097	The volumes of urea briquettes and NPK/DAP are calculated based on the area of rice under

scaling-up (mt)												UDP and the area of vegetables under MD.
Total volume of NPK / DAP and balanced fertilizer sold through input suppliers due to reduction in FDP and MD (mt)	301.13	127.12	-174.00	42%	6,023	127	-5,895.38	2%	77.50	204.62	13,867	Not all of the planned areas were realized because of insufficient irrigation water, which remains a major concern in the off-season.

6. Intermediate Result 3 (IR3): Improved fertilizer policy and regulatory environment

The activities planned for the reporting period for RI3 are shown in the tables below.

6.1. IR 3.1 Regulations for fertilizer quality control implemented and enforced

6.1.1. Planned activities and level of implementation

Table 7 : Planned activities and level of Implementation

Activities	Level of Implementation
Sub-IR 3.1 – Regulations for fertilizer quality control implemented and enforced	
Quality control regulations	Conditional on the signature of the four fertilizer supporting regulations that were validated in January 2020. However, two samples of the Fertilizer Inspection Manual for Senegal were submitted to the Minister, MAER along with a note presenting the manual and the status of implementation of fertilizer regulations in the country. This note serves as an advocacy tool for adoption of the said regulations. A sample copy was given to the Directorate of Agriculture as well. DS also prepared and discussed with the designated fertilizer testing laboratory of CERES-Locustox strategies for effective capacity strengthening of the said laboratory.

6.1.2. Level of execution toward the target

Activities that will document the indicators will be implemented in Q2.

6.2. IR 3.2 Fertilizer subsidy program reformed

In accordance with the project work plan, the activities planned for the first quarterly of FY2 and the levels of execution are shown in the table below:

6.2.1. Planned activities and level of implementation

Table 8:: Planned activities and level of Implementation

Activities	Level of Implementation
Sub-IR 3.2 – Fertilizer subsidy program reformed to provide appropriate fertilizers to targeted farmers and empower the private sector	
Disseminate guides on principles for grant program reform	Ongoing. Electronical documents on Brochures and flyers on inputs subsidy policies are shared with LIP and other partners.
Sensitize and prepare key national stakeholders to advocate for program reform	Ongoing.

6.2.2. Level of execution toward the target

No indicators to report for this first quarterly.

7. Cross-cutting activities

Cross cutting issues include mainly gender, youth and communication.

7.1. Gender

Table 9: Level of participation of women in project activities

Indicators	Q1/Y2				Anunal				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		
GNDER-2 Percentage of women participating in U.S. government-supported programs designed to increase access to productive economic resources	12%	48%	36%	398%	12%	48%	36%	398%	58%	58%	15%	This significant gap is due to the great mobilization of women's groups around off season activities.

7.2. Youth

Table 10: Level of youth participation in project activities

Indicators	Q1/Y2				Annual				Achievement		Target of the LOP	Comments
	Target	Achieved	Gap	Achievement Rate	Target	Achieved	Gap	Achievement Rate	FY1	To date		

YOUTH-3 Percentage of participants in USG-assisted programs designed to increase access to productive economic resources who are youth (15-29)	8%	8%	0%	98%	8%	8%	0%	98%	7%	8%	12%	No comment

7.3. Communication

During the reporting period, the Communications and ICT team supported project implementation with the following activities:

- Developed Monitoring, Evaluation and Learning System. The system will be used for recording, reporting data and other information related to Project Performance Indicators. This database application is the main avenue for data entry, mostly to be done by the RAM's, Monitoring, Evaluation and Learning (MEL) specialist and give access to partners to view various project indicator reports
- Developed and validated database for agro-dealers and agriculture input suppliers operating in Senegal
- Below communication materials were designed and finalized:
    - Project gadgets such as (2021 New Year Greetings card, Project Calendar, Project Agenda booklet, Project bag…)
    - Project reports (Effects of Covid-19 on the Fertilizer Sector in Senegal, Producers testimonials and Information Note, Report Reference Study…)
    - Dundël Suuf Flash Info, a monthly information bulletin.
- Development of two films for the cascade training of producers based on the digitalization approach

8. Dundël Suuf Food Security Response to COVID-19

To support the MAER's actions, Dundël Suuf (DS) proposed a set of concrete actions for an effective food security response (FSR) to Covid-19. The aim of the DS-FSR is to ensure that the productive capability of farming households, especially the most vulnerable groups, will not be progressively weakened during this period and that the capacity of the private sector to supply affordable quality essential inputs at the right time to farmers will be is preserved. The planned actions were derived from a recent survey of randomly

selected representative farmers, producer organizations, agro-dealers, wholesalers, and importers. The survey was conducted by DS in April and May 2020 to understand the immediate challenges and threats that the pandemic posed to operations and to co-develop supportive measures. These can be summarized as follows:

- Logistical challenges in the input supply chain were translating into:
    - delays at ports and possibly the unavailability of inputs in sufficient quantity at the right time for farmers and deterioration of inputs quality; and
    - higher cost of doing business for the private sector and possibly higher farm gate prices for farmers.
- Financial hardships leading to limited access to suppliers' credit for wholesalers and agro-input dealers.
- The GoS was rushing towards the intensification of input subsidies, possibly crowding out the private sector, and supplying farmers with inadequate inputs and those not adapted to soil and crop needs.

To address these challenges, DS-FSR proposed concrete actions along the lines of two key elements:

- Intensifying the diffusion of agricultural productivity-enhancing technologies to improve farmers' productive capacities and increase crop yields, and
- Minimizing distortions in the agro-input supply chain to maintain or increase the private sector's incentive and capacity to provide affordable quality inputs to farmers in a timely manner.

9. Management and General Coordination

During the first quarterly of FY2 of the project, coordination activities were mainly focused on:

- Planning off-season activities on vegetable crops and rice production under MD and FDP technologies.
- Supervision of the preparation of project communication documents
- Staff recruitment (2 Regional Activity Managers for Peanut Basin and Niayes)
- Consultants recruitment (communication specialist, machinist)
- Organization of the project team scientific retreat
- Facilitation of the implementation and monitoring of demonstration plots with the IP

Figure 1: Scientific retreat of the project team: Saly-Mbour, Senegal

10. Challenges, Perspectives and Opportunities

Major challenges during the second quarterly of FY2 of the project were:

1. Implement widely the projet communication strategy
2. Keep up with deadlines on field activities because of Covid19