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MANITATRA 2 PROJECT

SUBMITTED TO

COMMON MARKET FOR EASTERN AND SOUTHERN AFRICA

BY

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Acronyms and Abbreviations

ACP	Africa, Caribbean and Pacific countries
AFD	Agence Française de Développement (French Agency For Development)
AGRISUD	French NGO
APDRA	Born in 1996, APDRA Pisciculture Paysanne supports fish farming in southern countries and raises awareness among northern stakeholders of the challenges involved in this activity.
asl	above sea level
AF	Agroforestry
ATDRM	Association de Techniciens de Développement Rural de Madagascar (NGO on fish development , meaning Association of technicians on rural develpment in Madagascar)
AU	African Union
AVSF	Agronomes et Vétérinaires sans Frontières (Agronomists and Veterinarians without borders)
BEMC	Bureau de l'Education Environnemental et du Civisme (Environmental Education and Citizenship Office)
CA	Conservation Agriculture
CASEF	Appui aux chaînes de valeur et à la sécurisation foncière (Support to value chains and land security)
CC	Climate Change
CISCO	Circonscription scolaire (school enrolment)
CEFFEL	Conseil Expérimentation Formation en Fruit et Légume (Experiment Council Training in Fruit and Vegetables) (association)
CIRAD	Centre de Recherche Agronomique pour le Développement (Center for Agronomic Research for Development)
COMESA	Common Market for East and Southern Africa
CROA	Comité Régional d'Orientation et d'Allocations (Panel for fund allaocation within FDA)
CSA	Climate Smart Agriculture
DREMC	Direction Régionale de l'Environnement et du Civisme (Regional Directorate of Environment and Citizenship)
DGE	Directorate General of Environment
DGM	Directorate General of Meteorology
DRAEP	Regional Directorate for Agriculture, Livestock and Fisheries
DREDD	Regional Directorate for Ecology and Sustainable development
DRENETP	Regional Directorate for national, technical and professional Education
EBa	Ecosystem based Adaptation
EU	European Union
FAO	Food and Agricultural Organization
FAW	Fall Army Worm (chenilles légionnaires)
FDA	Fond de Développement Agricole (Agricultural Development Fund)
FDAR	Fond de Développement Agricole Régional (Regional Agricultural Development Fund)
FFS	Farmers Field School
FIFAMANOR	Centre de recherche et de développement rural en agriculture et en élevage est basé à Antsirabe (The Agricultural Research and Development Center for Agriculture and Livestock
FIFATA	Association pour le Developpement des Paysans (Association for the Development of Farmers)
FOFIFA	FOFIFA - CENRADERU - Centre national de Recherche appliquée au développement rural (FOFIFA - CENRADERU - National Center for Research in Rural Development)
FO	Farmers organization
GCCA +	Global Climate Change Alliance plus
GSDM	Formerly "Groupement Semis Direct of Madagascar", changed to "**GSDM**, *Professionnels de l'Agro-écologie*" (without development of the acronym GSDM)
IRD	French Institute of Research and Development
LF	Lead Farmer
LRI	Laboratoire de Radio Isotope (Radio Isotope Laboratory)
M&E	Monitoring and Evaluation

MEDD	Ministère de l'environnement et du Dévloppement Durable (Ministry of Environment and Sustainable Development)
MENETP	Ministère de l'Education Nationale,de l'Enseignement Technique et Professionnel (Ministry of National , technical and professional Education)
MAEP	Ministère de l'Agriculture, de l'Elevage et de la Pêche (Ministry of Agriculture , Livestock and Fisheries)
MS	Member State
NAP	National Adaptation Plan
NGO	Non-Government Organization
OEMC	Office de l'Education Environnementale et du Civisme (Office of Environmental Education and Citizenship)
PAPAM	Projet d'Appui à la Productivité Agricole à Madagascar (Support Project for Agricultural Productivity in Madagascar)
PAPRIZ	JICA project on Irrigated Rice in Madagascar
PLAE	Projet de lutte anti-érosive: GIZ Erosion project funded by KFW
SPAD	Système de Production d'Altitude Durable (Sustainable Production system in high altitude)
RNM	Radio Nationale Malagasy (National Malagasy Radio)
SRI/SRA	System of Rice Intensifications/System of Rice Improvement (Rice intensification using young plantlets (8 days for SRI and 10 – 15 days for SRA), good seedbed and alterning irrigation and drying of the soil, plus farm manure and fertilizer)

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I- EXECUTIVE SUMMARY

Partnership

Except for the Ministry of National Education, collaboration with Governments Ministries and Institutions was on stand-by during the period due to the Presidential election (October-November-December). It was considered inappropriate to initiate collaboration during this period and before the constitution of new government members and Ministry staff. But the agreement with the Ministry of Education could be signed with the previous Government and the activities of integration of CSA in secondary schools targeting 2000 school children could be implemented properly: e.g. 6 new schools in the highlands and the 6 old ones were supported through training of trainers (teachers), implementation of demonstration plots and provision of inputs and equipments for each school.

The collaborations with CBO's and farmers Associations were effective through seeds and seedlings production, especially in the former area of intervention of Manitatra 1 project in the Middle-West.

Objectives

The project main objective is to support the up scaling of CSA in order to mitigate climate change and to improve food security in Madagascar.

As a specific objective, ecosystem-based adaptation is up scaled for agriculture development and soil and forest smart conservation in the Mid-West and the Highlands of the VAKINANKARATRA Region.

Three project results are expected:

- *Result 1: CSA and Best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions;*
- *Result 2: Capacity on various stakeholders is built in Climate Smart Agriculture (Conservation Agriculture and Agroforestry)*
- *Result 3 Farmer organizations are supported and linked to various stakeholders in Agriculture*

Project Financial performance

Total budget of Year 1 is € 272.727,27 of which 66.3% was engaged and 58.3% disbursed. Budget lines for motorcycles and bicycles were underestimated. For motorcycle, the budget is not sufficient for 8 new motorcycles, therefore 5 new motorcycles were purchased and 3 repaired from Manitatra 1 motorcycles. For bicycles, the budget was not sufficient for 50 new bicycles, therefore, 32 new bicycles were purchased and 18 repaired from Manitatra 1 bicycles

Detailled progress on project implementation

Result 1: CSA and Best practices are up scaled in two ecosystems of the Vakinankaratra region - Highland and Middle West regions in Madagascar

Most of the activities planned under this result were implemented with high achievement except those related to the improvement of organic matter (support to cowshed), forages and support to fish rising in the paddy field, activities planned in year 2.

As a success story, tree plants production this year was well organized in the Mid-West (in time, good quality of tree plants) because of the first experience during Manitatra 1 and the trained nurserymen/women. In the Highlands, this activity was more switched to fruit trees and agroforestry based on the demands by farmers. Seed providers for cover crops, repellent plants or bio pesticides were either available locally (Stylosanthes, mucuna...) or outside the Vakinankaratra region. Most of these seeds were of good quality.

Result 2: Capacity on various stakeholders is built in Climate Smart Agriculture

Capacity buildings of most of stakeholders was achieved except those involving government institution like DGM or Ministries staff.

Result 3: Farmer organizations are supported and linked to various stakeholders in Agriculture

The most important activity in this result is to make a link with FDAR, to get financial support on some CSA project. But the FDAR in the Vakinankaratra region is still in standby during this period. Supports from FIFAMANOR (dairy cattle and forages) APDRA (fish rising in the paddy field) and CEFFEL (composting, biopesticides and fruit trees) are planned for the next quarter or semester.

Communication and visibility

During year 1, the inception workshop was organized by the project. This event was covered by national radio, local press and published on line and in the Journal of Agro-ecology. The principal activity for each event are oriented on designing and editing project sheet, project poster, project stamps, bill boards, roll up description of Manitatra 2 project. This activity of designing and edition of other communication tools is still planed for each communication event. The Challenge is the visibility of the project and CSA upscaling. One film was produced covering many communes of the project MANITATATRA 2.

Project administration (human and equipment)

Project staff was recruited on the 15th of September and all equipment purchased. Team building was ensured by GSDM staff in Antananarivo. Backstopping by GSDM staff was performed regularly. Two technians and 8 lead farmers had to be fired for low performance;

Project oversight

One firm, GEOSYSTEM DEVELOPPEMENT, recruited to establish the baseline study for the project but his report is not yet delivered.
COMESA Supervision mission (M&E) by Cissy A. KIRAMBAIRE and Gabriel MASUKU (lawyer) occurs on 4th to 6th September 2018.
COMESA Financial Supervision by Lynnette MUSUNDA occurred on November 22nd and 23rd 2018.

Project Steering Committee has been decided during the Board Meeting of November 28, 2018 and will be made of a panel of 7 persons:

1. *One representative of the Ministry of Agriculture and Livestock and Fisheries;*
2. *One representative of the Ministry of Environment and Forestry;*
3. *One representative of the Regional Direction of Agriculture and Livestock in the Vakinankaratra;*
4. *One representative of the Regional Direction of Environment and Forestry in the Vakinankaratra;*
5. *One representative of the Vakinankaratra Head of Region*
6. *The Chairperson of GSDM Board;*
7. *One Deputy Chair of GSDM Board*

Nominations to these positions has be received and the first meeting of the Steering Committee **will occur in August 2019.**

Lessons learned from this first year of the project

As lessons learned from the first year, it was observed that in the highlands of the Vakinankaratra, farmers practice dry sowing of upland crops (rice and Maize). According to farmers, peak of works and overlapping activities at the beginning of rainy season are the main reasons for this practice. During this period, farmers are busy in the lowland paddy fields. The impact for the project activity is that many farmers have already sown the main upland crops during the implementation phase of the project. It was therefore difficult for technicians to

plan with farmers some systems. Intercropping cover crops in conventional system was the only solution for the project staff.

Linked to this sowing period, it is also observed during this season that the outbreak of the Fall Army Worm[1] (FAW) recently introduced in the Country, is reduced in early planting for the maize crop. Late sowing is strongly attacked or sometimes resulting in 100% loss of the crop. Lessons learned from PLAE project in the Boeny regions shows that rotations and association with mucuna drastically reduced the FAW impact (RAKOTONDRAMANANA, 2019[2])

Farmers have a great interest for food legumes crop like cowpea. These legume crops should be integrated into the cropping systems (associations and rotations). Their introduction into production systems would contribute to the food and nutrition security. But they are also interested in the mucuna for soil restoration and to combat insects and weeds, especially the FAW outbreak.

Farmers in the Highland of Vakinankaratra systematically use organic fertilizers based on farm manure and chicken manure available in this area, and also chemical fertilizers at low rate. In the Middle West, vermicompost introduced during Manitatra 1 project is well adopted and tend to scale up (some farmers produce it themselves and some farmers buy). These organic farming systems are in favor of vegetative growth conditions on crop. But monoculture of rice and maize are prevailing in the highlands.

It was found that there are many abandonments of Stylosanthes system especially for small scale farmers (observation in the Manitatra 1 project intervention area). Socioeconomic study has also shown that below 3Ha of utilized agricultural land for farmers, Stylosanthes system needs to be adjusted for small farmers. After two or three years of good biomass of Stylosanthes to regenerate soil fertility, it is necessary to go back to tillage and to switch to rotation with annual or climbing legumes (cowpea, mucuna etc..). But even after tillage Stylosanthes will come back from seeds left in the soil and therefore the no till system may be continued but with annual cover crops.

In the situation of new area of the Highland, selection of lead farmers was hampered by lack of previous experiences in the area. Therefore, limited targets were fixed for them during the first 6 months. The highlands are the area for dairy cattle breeders, but it appears that although these farmers are very useful for the integration of Agriculture and livestock, they are normally very busy farmers and therefore, have very limited time to train their peer farmers.

During this year, the cover crop seeds supplies are important and show the existence of seed providers country.

Challenges

The problem of erosion is a good challenge in the Project area. If the contour farming and terracing have been practiced and well known in the Highland of Vakinankaratra, it is not the case in the Mid-West which used to be a pioneer front. Combined with Conservation Agriculture, hedgerows and reforestation, it is a big challenge to develop contour farming and hedgerows because most of the soils in the Mid-West are on steep slopes and therefore very sensitive to erosion. A lot of awareness risings need to be done in this area.

Control of insect attack in an agro-ecological way remains a big challenge. This year, there has been a high pressure of FAW in maize crop and other worms' attacks. Most of high crop losses occurred in conventional cropping systems but the attacks were low in well managed CSA systems especially where rotation with good biomass of mucuna was practiced. Also early survey of the maize crop is required to apply the appropriate crop protection. Integrated crop protection is privileged rather than insecticides sprayings (RAHARIMANANA H, 2019[3]).

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[1] FAW : *Spodoptera frugiperda*

[2] RAKOTONDRAMANANA, 2019, Rapport de mission de capitalisation dans la région du Boeny pour le compte du PLAE, 17 au 23 Février 2019

[3] RAHARIMANANA H, 2019, Presentation of the FAW at the Research Development interface workshop, Antsirabe, 6 and 7 February, 2019

For the next season, the targets have been increased to compensate the problem of late implementation of the project. So seed access should be well managed. It is important to plan local production of seeds from now onwards, especially in the highlands. Local multiplication of seeds and plants is already important in the Mid West as a result of the Manitatra 1 project impact but it will be a big challenge in the Highlands.

Most of the targets of year 2 and year 3 will be planned in year 2 in particular for implementation of cover crops and for forestation. Most of activities in year 3 would be therefore based on FDA.

II- PARTNERSHIP

As targeted in the Manitatra 2 project document, especially in the project pathway of change, the GSDM relies on partnership with many stakeholders. The **key stakeholders** are:

- Governments Ministries and institutions partners involved in implementing the project
    - Ministry of Agriculture, Livestock and Fisheries (MAEP) and his regional office, DRAEP (Agriculture, Livestock and Fisheries Regional Direction),
    - Ministry of Environment and Sustainable Development (MEED) and his regional office DREED (Environment and Sustainable Development Regional Direction) – MEED as Focal point for Land Degradation and Desertification, MEED/DGE as focal point for Global Environment Facility, BNCC (National Office for Climate Change) as Focal point for Green Climate Fund,
    - DGM as Directorate of General Meteorology and his regional office,
    - MENETP and his regional offices DRENETP and CISCO (Education);
- Non-Government organizations partners: CEFFEL (Fruit trees and vegetables, bio-pesticides and best practices specialists), APDRA (fish rising in paddy fields or in ponds);
- Research institutions through Research platform in partnership SPAD with national institution for Agriculture Research (FOFIFA), National Institution for research on dairy cattle, tuber crops and cereals (FIFAMANOR), LRI (Radio-Isotope Laboratory) and University of Antananarivo, International Research Institution (Africa Rice, CIRAD, IRD);
- CBO' and farmers Associations beneficiaries: Seed growers (Vinany), Nurserymen and Farmers Organization;
- State promoted development device and mechanism to develop support services for farmers and their organizations (advice, training, investments) at national level (FDA: National Agricultural Development Fund), at Regional level (FDAR: Vakinankaratra Regional Agricultural Development Fund), at District level (CSA: Agricultural Service Center);
- On-going Project: PAPAM (Development project), ECO-Africa (Research Project), others.

Collaborations with Governments Ministries and Institutions was postponed in the second 6th months, due to the election period on October-November-December 2018 (inappropriate period to initiate collaboration). The constitution of new government members and Ministry staff was effective on april 2019. Regional staffs were duly nominated on May and June 2019. The first collaboration was to compose the project steering committee members. All project steering committee members was nominated (by the respective Ministers for Ministries).

The collaboration with the DRAEP was discussed during the last quarter of this first year and an agreement was signed on July 2019. For this collaboration, the DRAEP of Vakinankaratra will:

- supervise the Manitatra 2 activities in the 10 communes on the Highlands and 7 communes in the Middle West, aiming the appropriation of the project action by local stakeholders and farmers, strengthening the collaboration with communes and making it more sustainable;
- provide technical and operational training for 50 lead farmers in order to sthrengthen their capacity for the realization of their tasks (conducting meetings, family farm advisory service, fruit and vegetable processing technique); and offer some concepts on legal texts in the field of fishing and fish farming;
- evaluate the capacity of these Lead farmers as professional Farmers Trainers (with a certification if needed). These Lead farmers will remain as resource persons in the area at the end of the project and should be linked with CSA/FDA (state promoted development device and mechanism).

The collaboration with DREDD was also discussed and an agreement was signed on July 2019. For this collaboration, the DREDD of Vakinankaratra will:

- supervise the reforestation activities of the Manitatra 2 project in the 10 communes on the Highlands and 07 communes in the Middle West, aiming at the appropriation of the project action by local stakeholders and farmers, strengthening the collaboration with communes and making it more sustainable;
- provide the certification of woodlots as part of the Manitatra 2 project;
- conduct a technical training to reinforce the nurserymen's technical baggage in collaboration with the Manitatra 2 project;
- evaluate the capacity of nurserymen as professionals in the field (with a certification if needed). They will be able to strengthen their capacity in the forest seedlings production; and may also become suppliers under the CSA/FDA mechanisms.

The collaboration with the MENETP (National Education Ministry) and his regional offices DRENETP and CISCO (Education) were done during the first 06 months of the project implementation through Agroecology integration in primary school. The objective of this collaboration are:

- to educate pupils of 12 primary school (6th and 5th grade pupils) on the major issues of environmental degradation in relation to conventional practices and climate change, and teach them the concept of Agroecology and climate smart agriculture, as a sustainable agriculture;
- to introduce a practical aspect of training through school gardens by developing different Agroecology systems adapted to school communities (teachers, parents, students, ...);
- to carry out advocacy actions, particularly at the Curricula and Inputs Directorate of MENETP, with a view to integrate agroecology and climate smart agriculture into the Malagasy education system.

First steps of exchanges are also done with the State promoted development device and mechanism (FDA, FDAR and CSA). These devices are in the process of restructuring and the collaboration should be effective during the second year.

The collaboration with NGO's partners were been effective during the second semester of this first year.

- With CEFFEL, it is considered that the mastering of good agricultural practices combined with a good conduct and animation of a meeting allow the project local team to have capacity to ensure in their turn the training and better accompaniment of lead farmers, as part of the support for the dissemination of Agroecology in the area. The purpose of the collaboration with CEFFEL are:
    - firstly, to ensure technical training on agricultural good practices, particularly on vegetable crops processing, composting with the addition of biocide and repellent plants, and fruit arboriculture;
    - and then, to strengthen the staff and lead farmers' capacity on meeting animation.

  In this collaboration, they are targeting the project technical staff (2 agronomists engineers and 6 technicians) and 50 lead farmers as local personal resources and could be linked with farmers' organization.

  During this year, a training session of project technical staff was done in april 01-05, 2019. A first field accompaniment was realized in Antanifotsy and Ankazomiriotra respectively on May 21 and May 25, 2019.
- With APDRA, it is an international solidarity association that has been operating in Madagascar for more than 20 years, to promote and develop sustainable fish farming through various projects. It remains the reference in this field in Madagascar. It also supports the constitution of structures capable of disseminating farmer fish farming. The ATDRM (Technicians' Association for Rural Development in Madagascar) is the first formal association in this case. It is composed by ten (10) technicians from the AMPIANA/APDRA project (2015-2019). In this context, these technicians assisted the installation of 250 fry producers and 1500 rice-fish farmers in 30 communes in the Analamanga and Itasy regions.

  For this reason, GSDM has requested collaboration with ATDRM, accompanied by APDRA, on the promotion of fish farming (including integrating rice-fish integration) as part of the implementation of the Manitatra 2 project.

  An agreement will be signed with ATDRM to train and support the local staff and lead farmers on fish farming in order to be operational for the next rice campaign.
- With FIFAMANOR, this center has the competence in dairy production. It has a training center with an animal nutrition laboratory and the ARMOR farm, two extension technicians based respectively in Ambohimandroso and Antsoantany, and a network of ten controlled farms.

  The Manitatra 2 project plans to collaborate with this center on milk production improvement, in its areas of intervention. An agreement is planed between the project and FIFAMANOR to implement demonstration through "Farmer Field Schools" in forage crops and dairy production.

Exchange and collaboration with research institutions was done through implementation of multi-location collection of rice varieties (varieties from research) in the project area. Collaboration are also done through permanent exchanges and through organizing exchange workshop on Research Results (February 06-07, 2019) in collaboration with the PAPAM project (funding the event) and the research platform SPAD (FOFIFA, FIFAMANOR, University of Antananarivo, Africa Rice, Cirad, IRD).

During this first year, collaborations with CBO' and farmers Associations are effective through seeds and seedlings production, especially in the former area of intervention of Manitatra 1 in the Middle-West (see

appendix 5). In the highland, the Manitatra 2 local staffs are targeting local partners who are likely to provide project needs and train them later.

III- OBJECTIVES

The project main objective is: to support the up scaling of CSA in order to mitigate climate change and to improve food security in Madagascar.

As a specific objective, ecosystem-based adaptation is up scaled for agriculture development and soil and forest smart conservation in the Mid-West and the Highlands of the VAKINANKARATRA Region, Madagascar.

Mains project results are:

- Result 1: CSA and Best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar
- Result 2: Capacity on various stakeholders is built in Climate Smart Agriculture (Conservation Agriculture and Agroforestry)
- Result 3 Farmer organizations are supported and linked to various stakeholders in Agriculture

Communication and CSA visibility are promoted throughout implementation of the project through i) Visibility and communication events organization, ii) Publications and broadcasting and iii) Documentaries design and edition.

IV- PROJECT FINANCIAL PERFORMANCE

Table 1: Global Project financial performance

Budget acc.	Planned Activities	Budget (Year 1)		TOTAL ENGAGED MGA	TOTAL ENGAGED €	% (engaged/ budget)	TOTAL DISBURSED MGA	TOTAL DISBURSED €	% (disbursed/ budget)
		MGA	€						
1.	**RESULT 1 :** CSA and best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar	439 450 000,00	115 644,74	326 291 689,83	86 343,40	74,7%	325 716 518,78	86 191,19	74,5%
2.	**RESULT 2 :** Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry	152 769 176,00	40 202,41	57 525 964,14	15 222,54	37,9%	57 530 023,66	15 223,61	37,9%
3.	**RESULT 3 :** Farmers organisations are supported and linked to various stakeholers in the Agriculture to support sustainability of the project results	41 077 117,00	10 809,77	8 303 168,00	2 197,19	20,3%	5 088 668,00	1 346,56	12,5%
4.	COMMUNICATION AND VISIBILITY	33 658 350,00	8 857,46	9 528 400,80	2 521,41	28,5%	9 528 400,80	2 521,41	28,5%
5.	PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)	240 615 565,33	63 319,89	189 354 259,23	50 106,98	79,1%	166 125 837,25	43 960,26	69,4%
6.	PROJECT OVERSIGHT	60 993 920,00	16 051,03	45 810 714,00	12 122,44	75,5%	7 814 714,00	2 067,93	12,9%
July 2018 to June 2019		968 564 128,33	254 885,30	624 816 398,00	165 339,08	64,9%	571 804 162,49	151 393,01	59,4%
7.2.1	Adminstrative charges	67 799 489,54	17 841,97	46 730 503,23	12 365,84	69,3%	29 539 826,19	7 816,84	43,8%
YEAR 1 TOTAL BUDGET (EUROS)		1 036 363 617,88	272 727,27	683 544 699,23	180 879,78	66,3%	601 343 988,68	159 127,81	58,3%

As shown in this overall table and the details below (more details by sub-activities are given in Annex 2), the actual disbursement rate is 58.3%, with 66.3% of expenditures engaged compared to the target of this first year.

The activities of Results 1 *"CSA and best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar"* are achieved at the rate of 74.5%. In this first result, activity A.1.5. It has not been achieved yet (Collect data on CSA in some strategic area of national level in a view of data on upscaling of CSA and best practices in the Country). This activity needs a co-financing with the PAPAM Project whose procedures are still in progress, hence the postponement of this activity in the second year. Activity A.1.4. Other practices (bio-pesticides and repellent plants, technology of composting, organic fertilizers, forages, commodities for food security and orange flesh sweet potatoes ..., incomes generating activities ...) is also showing low rate of disbursement because it is being continued in the off-season (ongoing activities) and an overestimation of the targets has also been noted and will be corrected for the Plan of Actions and budget of year 2 and 3.

Les activités du **Résultat 2 *« Capacity of various stakeholders is built in Climate Smart Agriculture Conservation Agriculture and Agroforestry »*** ont connu un faible décaissement, 37,9% car plusieurs activités en lien aux Ministères (MENETP, MAEP, MEDD) ainsi que leurs branches régionales ont été décalées par rapport à la période d'élection et de constitution des staffs des Ministères et des Directions régionales. Les conventions ont été signées vers la fin de l'année pour des collaborations effectives à partir de la deuxième année. Certaines activités de formation (des pépiniéristes et des paysans leaders) n'ont pas mobilisé de financement car ils ont été formés par l'équipe de terrain pendant cette période.

Activities in Result 3 «*Farmers Organizations are supported and linked to various stakeholders in Agriculture to Support Sustainability of Project Outcomes*" also experienced low disbursement (12.5%). By prioritizing awareness-raising activities, pilot farmer training, establishment of farmer field schools and dissemination, according to crop calendars (October to March), stakeholder / stakeholder outreach activities have not been implemented. started only during the second half of the year. Negotiations took some time and agreements were only signed during the last quarter (thus limiting the disbursement and postponing the vast majority of activities in year 2). Some planned activities with FDAR and CSA have been put on hold again in relation to the current structuring of these devices.

On "*Communication and Visibility*", the disbursement rate remains as low as 28.5%. All planned communications activities have been conducted and at least initiated. A large part of the budget has been devoted to film production, which is ongoing and has not yet been disbursed. Film shots were started during the year but montages have not been completed until the end. The Project Administration (human and equipment) has a disbursement rate of 69.4% (79% committed). The gap is just due to the delay in setting up staff. The release of funds was made in July 2018 and the team was formed in September-October 2018, with a disbursement of 10 months instead of 12 months.

The "*Project Oversight*" has a low disbursement of 12.9%, with 75.5% of the expenses engaged. This is largely a monitoring and evaluation work with initial situation studies not yet completed and not yet paid. The steering committee has just been formed.

Table 2: Project financial performance following the logical framework

Budget acc.	Planned Activities	Budget (Year 1)		TOTAL ENGAGED MGA	TOTAL ENGAGED €	% (engaged/ budget)	TOTAL DISBURSED MGA	TOTAL DISBURSED €	% (disbursed/ budget)
		MGA	€						
1.	**RESULT 1 : CSA and best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar**	**439 450 000,00**	**115 644,74**	**326 291 689,83**	**86 343,40**	**74,7%**	**325 716 518,78**	**86 191,19**	**74,5%**
Activity 1.1	Conduct awareness raising,advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries	29 000 000,00	7 631,58	38 444 775,20	10 173,27	133,3%	38 444 775,20	10 173,27	133,3%
Activity 1.2	Upscale Conservation Agriculture to support the growing of up land rice and other crops	22 500 000,00	5 921,05	15 917 298,00	4 212,04	71,1%	15 917 298,00	4 212,04	71,1%
Activity 1.3	Upscale agroforestry and forestation (equipement and seed support to nurseryman and adopting farmers)	136 500 000,00	35 921,05	121 941 817,00	32 268,28	89,8%	121 976 825,03	32 277,54	89,9%
Activity 1.4	Promote other best practices (bio-pesticides and repellent plants, technology of composting, improved organic fertilizers, forages, species for food safety as orange flesh sweet potatoes..., regenerative income activity as vegetables…)	32 800 000,00	8 631,58	5 450 000,00	1 442,18	16,7%	5 450 000,00	1 442,18	16,7%
Activity 1.5	Collect data on CSA in some strategic area at National level in a view to update data on upscaling of CSA and best practices in the Country	87 400 000,00	23 000,00	-	-	0,0%	-	-	0,0%
Activity 1.6	Purchase principal mean for upscaling activity	131 250 000,00	34 539,47	144 537 799,63	38 247,63	110,7%	143 927 620,55	38 086,17	110,3%
2.	**RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry**	**152 769 176,00**	**40 202,41**	**57 525 964,14**	**15 222,54**	**37,9%**	**57 530 023,66**	**15 223,61**	**37,9%**
Activity 2.1	Train nursymen in the technology of tree nurseries and in the choice of the appropriate tree species	3 500 000,00	921,05	-	-	0,0%	-	-	0,0%
Activity 2.2	Train lead farmers and farmers in CSA (CA, agroforestry and forestation, other good practices)	42 000 000,00	11 052,63	24 400 000,00	6 456,73	58,4%	24 404 143,42	6 457,83	58,4%
Activity 2.3	Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)	80 140 176,00	21 089,52	33 125 964,14	8 765,80	41,6%	33 125 880,24	8 765,78	41,6%
Activity 2.4.	Organise training sessions targeting development actors such as farmers organisations, NGO and services providers	7 400 000,00	1 947,37	-	-	0,0%	-	-	0,0%
Activity 2.5	Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry	9 729 000,00	2 560,26	-	-	0,0%	-	-	0,0%
Activity 2.6	Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEEF) or regional directorates	10 000 000,00	2 631,58	-	-	0,0%	-	-	0,0%
Activity 2.7	Participate to CSA integration into public policies	-	-	-	-	-	-	-	-
3.	**RESULT 3 : Farmers organisations are supported and linked to various stakeholers in the Agriculture to support sustainability of the project results**	**41 077 117,00**	**10 809,77**	**8 303 168,00**	**2 197,19**	**20,3%**	**5 088 668,00**	**1 346,56**	**12,5%**
Activity 3.1.	Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks	4 677 125,00	1 230,82	566 668,00	149,95	12,2%	566 668,00	149,95	12,2%
Activity 3.2	Sharing experience at the regional level (COMESA and other regions) integrating political actors and development actors	-	-	-	-	-	-	-	-

Budget acc.	Planned Activities	Budget (Year 1)		TOTAL ENGAGED MGA	TOTAL ENGAGED €	% (engaged/ budget)	TOTAL DISBURSED MGA	TOTAL DISBURSED €	% (disbursed/ budget)
		MGA	€						
Activity 3.3.	Support FOs to maintain continuous exchange with FDA and FDAR (state promoted development mechanisms in national level) in order to make a link between farmers and agricultural services	-	-	-	-	-	-	-	-
Acivity 3.4.	Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider (state promoted development mecanisms in national level) to make a link between the farmers and the agricultural services	1 900 000,00	500,00	-	-	0,0%	-	-	0,0%
Acivity 3.5.	Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions	34 499 992,00	9 078,95	7 736 500,00	2 047,23	22,5%	4 522 000,00	1 196,61	13,2%
4.	**COMMUNICATION AND VISIBILITY**	**33 658 350,00**	**8 857,46**	**9 528 400,80**	**2 521,41**	**28,5%**	**9 528 400,80**	**2 521,41**	**28,5%**
Acivity 4.1.	Visibility and communication events organization	12 854 550,00	3 382,78	4 668 060,00	1 235,26	36,5%	4 668 060,00	1 235,26	36,5%
Acivity 4.2.	Publications and broadcasting	2 278 800,00	599,68	1 700 340,80	449,94	75,0%	1 700 340,80	449,94	75,0%
Acivity 4.3.	Documentaries conception and edition	18 525 000,00	4 875,00	3 160 000,00	836,20	17,2%	3 160 000,00	836,20	17,2%
5.	**PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)**	**240 615 565,33**	**63 319,89**	**189 354 259,23**	**50 106,98**	**79,1%**	**166 125 837,25**	**43 960,26**	**69,4%**
Activity 5.1.	PMU officials recruited	113 300 000,00	29 815,79	89 739 795,05	23 746,97	79,6%	79 788 569,97	21 113,67	70,8%
Activity 5.2.	GSDM Backstopping fully implemented by his key staff	54 770 720,00	14 413,35	43 991 926,00	11 641,16	80,8%	31 994 128,00	8 466,29	58,7%
Activity 5.3.	Local missions	26 250 000,00	6 907,89	11 998 874,93	3 175,15	46,0%	11 998 874,93	3 175,15	46,0%
Activity 5.4.	Mean and equipments implementation	46 294 845,33	12 182,85	43 623 663,25	11 543,71	94,8%	42 344 264,35	11 205,15	92,0%
6.	**PROJECT OVERSIGHT**	**60 993 920,00**	**16 051,03**	**45 810 714,00**	**12 122,44**	**75,5%**	**7 814 714,00**	**2 067,93**	**12,9%**
Activity 6.1.	Steering committee	993 920,00	261,56	-	-	0,0%	-	-	0,0%
Activity 6.2.	Monitoring and Evaluation of the project	60 000 000,00	15 789,47	45 810 714,00	12 122,44	76,8%	7 814 714,00	2 067,93	13,1%
Activity 6.3.	Project achievements capitalization	-	-	-	-	-	-	-	-
July 2018 to June 2019		**968 564 128,33**	**254 885,30**	**624 816 398,00**	**165 339,08**	**64,9%**	**571 804 162,49**	**151 393,01**	**59,4%**
7.2.1	Adminstrative charges	67 799 489,54	17 841,97	46 730 503,23	12 365,84	69,3%	29 539 826,19	7 816,84	43,8%
YEAR 1 TOTAL BUDGET (EUROS)		**1 036 363 617,88**	**272 727,27**	**683 544 699,23**	**180 879,78**	**66,3%**	**601 343 988,68**	**159 127,81**	**58,3%**

V- DETAILED PROGRESS ON PROJECT IMPLEMENTATION

V.1 Result 1: CSA and Best practices are up scaled in two ecosystems of the Vakinankaratra region - Highland and Middle West regions in Madagascar

V.1.1 Conduct awareness raising, advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries

Table 3: Inception workshop and awareness raisingand advocacy for CSA

	Expected Result / Planned Activities	Indicator	Target (Year 1)	Cumulative achievements	
				Ach.	%
1.1.1	Inception workshop	Number of workshop	1	1	**100%**

On November 15, 2018, the Manitatra 2 project official launching workshop was conducted in Antsirabe. More than 110 participants attended the event, including local authorities, representatives from different Ministries, technical and financial partners, local development actors, GSDM members, the Manitatra 2 project team and journalists. This workshop helped to inform and exchange on the objectives, the intervention methodologies and the expected results of the project.

Table 4: Exchanges visits, adovocacy and awareness raising

	Expected Result / Planned Activities	Indicator	Target (Year 1)	Cumulative achievements	
				Ach.	%
1.1.2	Awareness, Information and communication about project activities	Number of participants	2 000	2 242	**112%**
	Exchanges visites between & inside communes	Number of participants in exchanges visits inside communes	2 400	1 781	**74%**
		Number of participants exchanges visits between commune	200	518	**259%**
1.1.3	Car hiring and other expenses during awareness raising	Number of car hiring days	40	27	**68%**

Information and communication sessions were carried out by the project local staff. At the beginning, this approach aims to make known to the target population the objectives, the intervention methodologies, the activities and expected results of the project. During the project implementation, these info/com sessions were also used to inform about the corresponding agroecological thematic in each period. They are usually followed by training and/or exchange visits.

A total of 72 information and communication meetings on project activities were recorded during this first year. 2.242 people attended these meetings, of which 31% were women.

Table 5 : Information and communication sessions achieved during year 1

Information and Communication per Commune	Cumulative achievements			
	Session number	Participant Nb	Women Nb	% Women
Ambatolampy	1	50	34	68,00%
Morarano	1	7	6	85,71%
Ambohimandroso	2	100	50	50,00%
Antanifotsy	1	21	11	52,38%
Ambohibary	2	61	40	65,57%
Antsoatany	3	95	47	49,47%
Andranomanelatra	2	16	16	100,00%
Higland subtotal	***12***	***350***	***204***	***58,29%***
Soavina	5	79	26	32,91%
Antohobe	16	391	97	24,81%
Ambohimasina	3	168	35	20,83%
Inanantonana	11	266	54	20,30%
Ankazomiriotra	3	46	27	58,70%
Vinany	5	189	58	30,69%
Fidirana	17	753	194	25,76%

Middle west subtotal	*60*	*1892*	*491*	*25,95%*
OVERALL TOTAL	72	2242	695	31,00%

The project approach has proposed the organization of exchange visits in order to share experiences between all stakeholders. Two types of exchange visits were carried out: those within each intervention commune (intra-communal), and those that allow the participants to see the dynamisms in the other communes (inter-communal).

For intra-communal exchange visits, the objective for this year is to register at least 2,400 participants. However, this objective is not achieved beacause of the delay in local staff implamentation in relation to the cropping calendars. Indeed, during the 101 exchange visits organized by the project team, 1,781 participants were able to benefit from this type of exchange visit (74% of the objective of year 1). Among these beneficiaries, there were 658 women (37% of participants). This type of exchange visit usually takes place at the level of the FFS (Farm Field School) or in the primary school field (in collaboration with the project as part of the introduction of Agro-ecology in primary schools). It is organised by the Lead Farmers, accompanied or not by the Technicians.

Table 6 : Intra-communal exchange visits achieved during year 1

Intra-communal exchange visits	Cumulative achievements			
	Session number	Participant Nb	Women Nb	% Women
Ambohimandroso	7	146	68	46,58%
Ampitatafika	3	85	34	40,00%
Antanifotsy	7	194	93	47,94%
Soamanandrariny	2	50	15	30,00%
Ambohibary	1	7	2	28,57%
Antsoatany	1	18	7	38,89%
Andranomanelatra	2	10	10	100,00%
Higland subtotal	*23*	*510*	*229*	*44,90%*
Soavina	4	67	6	8,96%
Antohobe	12	189	61	32,28%
Ambohimasina	12	165	77	46,67%
Inanantonana	24	388	140	36,08%
Ankazomiriotra	8	151	59	39,07%
Vinany	8	139	46	33,09%
Fidirana	10	172	40	23,26%
Middle west subtotal	*78*	*1271*	*429*	*33,75%*
OVERALL TOTAL	101	1781	658	36,95%

In addition, some farmers were also moved to other communes (inside the project intervention area). These intercommunal exchange visits open up perspectives for farmers and allow interaction between farmers from different communes. A total of 20 extra-communal exchange visits were completed during this project first year; with the participation of 518 farmers (28.38% women), e.g. 259% of the year 1 target.

Table 7 : Inter-communal exchange visits achieved during the year 1

Inter-communal exchange visits	Cumulative achievements			
	Session number	Participant Nb	Women Nb	% Women
All participants through 17 Communes	20	518	147	28,38%

Challenges: Multiply opportunities for farmers to share experiences and increase their interests about the CSA/CA, such as exchange visits, awareness rising, ...

V.1.2 Upscale Conservation Agriculture to support the growing of upland rice and other crops

Table 8: Conservation Agriculture upscaling

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.2.1	Provides seeds of cover crops	Number of farmers provided seeds of cover crops	1 500	1 824	122%
		Acreage of full Conservation Agriculture (ha)	500	603,49	121

In total, more than 3 tonnes of cover crop seed was distributed during this project first year. Mucuna is the most used cover crop. It is a plant that produces a lot of biomass, but does not produce edible grains. It is also

a good cover crop to restore soil fertility and to combat pests and weeds. It is now clear that mucuna is a good repellent plant agaist the destructive Fall Army Worm.

Then comes the cowpea with 32% of the cover crop seeds. It is a plant whose biomasses decompose very quickly, but produces food grains. The installation of mucuna after cowpea is therefore the most sustainable system (in order to increase biomass).

Afterwards, the stylosanthes with 8% of the distributed cover crop seeds. This crop is well adapted in the Middle West of Vakinakaratra. With its high biomass and highly developed roots system, it allows a relatively fast soil structure and fertility restoration. But it doesn't give a food product, and needs a year of fallow. This makes it more suitable for bigger farms (with more than 5ha of arable land).

Finally, during this first year, the project tried to introduce the *Vigna umbellata* to have more legume food among cover crops. But it has been found in almost all plots that it is not adapted in Vakinakaratra Region (late maturing crop)

In total, 1 824 farmers benefited cover crop seeds from the Manitatra 2 project (41.6% were women).

Table 9: Recapitulation of the cover crops seeds distribution in year 1

	Distributed quantity (kg)					Beneficiary number	Women number	% women
	Mucuna	Cowpea	Stylosanthes	Vigna	TOTAL			
HIGHLAND	**773**	**582**	**0**	**73**	**1 428**	**1 093**	**522**	**47,8%**
Ambatolampy	35	24	0	5	64	28	15	53,6%
Morarano	87	70	0	6	163	100	50	50,0%
Ambohipihaonana	62	101	0	12	175	143	85	59,4%
Ambohimandroso	64	41	0	4	109	103	34	33,0%
Ampitatafika	61	56	0	5	122	63	33	52,4%
Antanifotsy	173	88	0	10	270	97	38	39,2%
Soamanandrariny	14	29	0	3	46	42	12	28,6%
Ambohibary	121	54	0	9	184	200	102	51,0%
Antsoantany	66	40	0	4	109	99	31	31,3%
Andranomanelatra	91	79	0	15	185	218	122	56,0%
MIDDLE WEST	**914**	**400**	**249**	**76**	**1 639**	**731**	**237**	**32,4%**
Ambohimasina	45	26	30	6	107	75	32	42,7%
Ankazomiriotra	47	45	16	7	116	63	28	44,4%
Antohobe	116	63	41	14	232	174	41	23,6%
Fidirana	251	102	65	15	433	93	19	20,4%
Inanantonana	251	72	22	14	358	103	32	31,1%
Soavina	92	43	24	7	166	118	50	42,4%
Vinany	113	50	51	13	227	105	35	33,3%
Overall total	**1 687**	**982**	**249**	**148**	**3 067**	**1 824**	**759**	**41,6%**
Percentage (%)	**55%**	**32%**	**8%**	**5%**	**100%**			

During this first year of Manitatra 2 project, there was 603.49ha of implemented Conservation Agriculture (CA), which is 121% of this year's target. Cover crop from the old plots of Manitatra 1 project (2014 – 2016) has largely contributed to this achievement.

The stylosanthes-based system is the most popular with 45.8% of CA area. Then, the systems based on voluble legumes with 38,7%.

Table 10: Conservation Agriculture systems developed

Conservation Agriculture (CA) systems	Cumulative achievements (Ha)	%
CA based on Stylosanthes	276,27	45,8%
CA based on voluble legumes	233,80	38,7%
Integration of cover crop in traditional system	87,95	14,6%
CA based on shrurb legumes	3,84	0,6%
CA based on voluble + shurb legumes	1,64	0,3%
TOTAL	**603,49**	**100,0%**

1 744 farmers adopted conservation agriculture for this year, among them 564 are women (32.3%). 1,038 of adopters are from the Mid-west of Vakinankaratra. This area benefits from the old actions of the projects, such as Manitatra 1, and already shows significant dynamism in terms of dissemination.

Table 11 : CA implementation in ha and adopters number

Intervention zones	Cumulative achievements			
	Acreage (ha)	Adoptant number	Women adoptant	% women
HIGHLAND	**184,76**	**706**	**278**	**39,4%**
Ambatolampy	4,19	32	22	68,8%
Ambohibary	13,39	83	26	31,3%
Ambohimandroso	37,14	108	34	31,5%
Ambohipihaonana	12,23	85	40	47,1%
Ampitatafika	19,78	25	9	36,0%
Andranomanelatra	52,87	137	60	43,8%
Antanifotsy	18,31	81	30	37,0%
Antsoatany	11,22	58	17	29,3%
Morarano	13,02	79	35	44,3%
Soamanandrariny	2,62	18	5	27,8%
MIDDLE WEST	**418,73**	**1038**	**286**	**27,6%**
Ambohimasina	13,98	56	24	42,9%
Ankazomiriotra	71,04	176	69	39,2%
Antohobe	17,72	131	30	22,9%
Fidirana	128,42	176	32	18,2%
Inanantonana	78,90	181	51	28,2%
Soavina	16,71	87	39	44,8%
Vinany	91,96	231	41	17,7%
Overall Total	**603,49**	**1744**	**564**	**32,3%**

Challenges: The challenge for the second year is to reinforce and valorize the installed base during this first year (Lead farmers, FFS) in order to increase the acreage and the number of adopters in conservation agriculture.

V.1.3 Upscale agroforestry and forestation

Agroforestry and forestation is an important topic to be upscaled for the Manitatra 2 project.

Table 12: Agroforestry and forestation upscaling

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.3.1	Support tree nurserymen	Number of nurseryman supported	20	27	135%
1.3.2	Support adopting farmers in tree plantlets for reforestation	Number of trees plantlets for reforestation	500 000	557 351	111%
1.3.3	Support adopting farmers in fruit tree plantlets	Number of fruit plantlets of farmers adopting	10 000	6 527	65%
1.3.4	Provide seeds of hedgerows (Cajanus, Tephrosia….)	Number of farmers provided seeds of hedgerows	2 000	1 468	73%
		Length of hedgerow (in meters)	255 000	239 877	94%

V.1.3.1 Forestation

27 nurserymen (06 women) were collaborating with the project for this year; which represents 135% of this first year's target. These nurserymen are from the Middle West area; and the majority of them were already Manitatra 1 providers in the forest seedlings production. In the Highland, the late implementation of the the project staff (in October, while the nursery should be set up in august) did not allow to identify nurserymen for this first year (it is planed to develop collaboration during the second year in this area).

At the end of this 2018/2019 reforestation campaign, 557 351 seedlings were planted in the Manitatra 2 intervention zones, which is 111% of the year 1 target. With a proportion of 65.16%, *Acacia mangium* was the most widely used species during this campaign. Indeed, it is a plant that grows very well in the Middle West of Vakinakaratra. It is a legume that leaves a possibility of re-cultivation of plots after a possible exploitation of the tree. It shows rapid growth. Its seeds spread naturally with wind and runoff, and grow well after a fire. *Eucalyptus citriodora* (18.48%) and *Eucalyptus camalduliensis* (11.71%) successively take second and third place.

Table 13 : Distribution by species of reforested seedlings during year 1

Forestry species	Number of planted seedlings	%
Acacia mangium	363 169	65,16%
Eucalyptus Citriodora	102 999	18,48%
Eucalyptus Camaldulensis	65 251	11,71%
Eucalyptus robusta	22 947	4,12%
Acacia auriculiformis	2 983	0,54%
Eucalyptus globulus	2	0,00%
TOTAL	**557 351**	**100,00%**

A big part of this year's reforestation was carried out in the Middle West region. In fact, 537 101 seedlings have been reforested in this area. Only 20 250 seedlings of *Eucalyptus camaldulensis* was planted in the Highlands. For this year, there were 2 853 beneficiaries of reforestation, of which 596 were women (20.89%).

Table 14 : Distribution of reforestation in the Manitatra 2 intervention communes

Intervention Communes	Cumulative achievements			
	Number of seedlings	Number of adopters	Women	% Women
HIGHLANDS	**20 250**	**337**	**135**	**40,06%**
Ambatolampy	400	7	3	42,86%
Ambohibary	1 800	62	31	50,00%
Ambohimandroso	2 150	9	3	33,33%
Ambohipihaonana	1 750	9	2	22,22%
Ampitatafika	2 000	11	4	36,36%
Andranomanelatra	3 016	93	52	55,91%
Antanifotsy	2 700	16	2	12,50%
Antsoatany	1 884	98	30	30,61%
Morarano	3 750	19	5	26,32%
Soamanandrariny	800	13	3	23,08%
MIDDLE WEST	**537 101**	**2 516**	**461**	**18,32%**
Ambohimasina	9 050	21	1	4,76%
Ankazomiriotra	195 121	647	116	17,93%
Antohobe	9 300	120	26	21,67%
Fidirana	90 040	672	125	18,60%
Inanantonana	114 890	422	71	16,82%
Soavina	11 052	93	27	29,03%
Vinany	107 648	541	95	17,56%
Overall Total	**557 351**	**2 853**	**596**	**20,89%**

V.1.3.2 Fruit trees inside agroforestry system

Fruit trees in agroforestry system develop diversify production on the same plot, and provide important periodic income for households. 6 527 fruit tree plantlets were planted during this first year; which corresponds to 65% of the target. The project has subsidized the seedlings at half price, but with a maximum amount of 1250Ar (0.31 €) per fruit seedlings. 544 farmers, including 173 women collaborated with the project on fruit trees. Highland producers who are already used to be fruit farmers have been the most demanding. But the dynamism of households in the Middle West is starting to intensify.

Table 15 : Distribution of fruit tree seedlings during the year 1

Intervention Communes	Cumulative achievements			
	Number of planted fruit plantlets	Number of adopters	Women	% Women
HIGHLANDS	**5 105**	**318**	**119**	**37,42%**
Ambatolampy	1 211	35	19	54,29%
Ambohibary	324	25	4	16,00%
Ambohimandroso	917	51	15	29,41%
Ambohipihaonana	255	20	11	55,00%
Ampitatafika	778	30	8	26,67%
Andranomanelatra	157	10	7	70,00%
Antanifotsy	422	32	13	40,63%
Antsoatany	326	28	13	46,43%
Morarano	715	87	29	33,33%
MIDDLE WEST	**1 422**	**226**	**54**	**23,89%**
Ambohimasina	16	3	3	100,00%
Ankazomiriotra	89	20	7	35,00%
Antohobe	146	27	7	25,93%
Fidirana	837	112	18	16,07%
Inanantonana	93	14	6	42,86%
Soavina	130	17	6	35,29%
Vinany	111	33	7	21,21%
Overall Total	**6 527**	**544**	**173**	**31,80%**

Orange, peach, persimmon, apple and pear are the most popular and demanded fruit species. This is due to the demand on the market.

Table 16 : The different fuit species planted during this first year

FRUIT AND CASH CROP SPECIES	Number of fruit seedlings	%
Orange	1 326	20,32%
Peach	947	14,51%
Persimmon	688	10,54%
Apple	603	9,24%
Pear	559	8,56%
Coffee tree	314	4,81%
Mandarin tree	264	4,04%
Citrus	229	3,51%
Litchi tree	191	2,93%
Citrus tree	155	2,37%
Vine	125	1,92%
Plum tree	31	0,47%
Loquats tree	26	0,40%
Papaia tree	16	0,25%
Strawberry	2	0,03%
Ravintsara	1	0,02%
Other species to be identified	1 050	16,09%
TOTAL	**6 527**	**100,00%**

V.1.3.3 Hedgerow

Hedgerows have several functions. Implemented along contour lines, they help to limit water erosion. Then they also serve as windbreaks to the crop inside the plot. In addition, plots contour line also limit free grazing, especially with species which is not palatable to zebus, such as the crotalaria. Finally, the species promoted by the project are leguminous shrubs that contribute to limit the emission of greenhouse gases; and produce important biomasses for composting.1 468 farmers, including 566 women benefited from the hedgerow seeds. This total number of beneficiaries represents 73% of the project objective for this year 1.

Table 17: Distribution of hedgerow seeds in year 1

Intervention Communes	Distributed seeds quantity (kg)				Number of beneficiary	Women	% Women
	Cajanus	Crotalaria	Tephrosia	TOTAL			
HIGHLANDS	**106**	**84**	**490**	**680**	**920**	**394**	**42,8%**
Ambatolampy	2	5	16	23	26	12	46,2%
Ambohibary	10	7	61	78	132	54	40,9%
Ambohimandroso	4	13	37	54	83	27	32,5%
Ambohipihaonana	14	14	83	110	77	30	39,0%
Ampitatafika	5	4	36	45	53	29	54,7%
Andranomanelatra	30	25	75	130	228	111	48,7%
Antanifotsy	11	12	77	100	87	37	42,5%
Antsoantany	10	3	44	56	107	43	40,2%
Morarano	19	1	40	60	94	44	46,8%
Soamanandrariny	2	0	23	25	33	7	21,2%
MIDDLE WEST	**192**	**65**	**150**	**406**	**548**	**172**	**31,4%**
Ambohimasina	15	4	10	29	49	20	40,8%
Ankazomiriotra	17	4	11	32	55	21	38,2%
Antohobe	25	16	36	76	149	37	24,8%
Fidirana	70	14	30	114	74	14	18,9%
Inanantonana	23	10	18	51	60	18	30,0%
Soavina	19	3	28	50	98	42	42,9%
Vinany	23	14	18	55	63	20	31,7%
Overall Total	**298**	**148**	**640**	**1 086**	**1 468**	**566**	**38,6%**
Percentage (%)	**27%**	**14%**	**59%**	**100%**			

239 877 linear meter (Lm) of hedgerows were put in place during this year. Tephrosia is the most widely used species with more than 75% of the installed length. Cajanus and Crotalaria take the second place.

Table 18 : Species of hedgerow installed during this first year

SPECIES OF HEDGEROW	Length (Lm)	%
Tephrosia	181 938	75,85%
Cajanus	42 742	17,82%
Crotalaire	12 268	5,11%
Cajanus + Tephrosia	1 150	0,48%
Crotalaire + Tephrosia	950	0,40%
Brachiaria Marandu (in countour line)	330	0,14%
Brachiaria brizantha + Théphrosia (in contour line)	280	0,12%
Brachiaria	220	0,09%
TOTAL	**239 877**	**100,00%**

863 farmers (293 women) were registered as adopters of this hedgerow technique. High adoptions were observed on the Highlands.

Table 19 : Achievement on hedgerow during the year 1

Intervention Communes	Cumulative achievements			
	Length (Lm)	Number of adopters	Women	% Women
HIGHLAND	**168 277**	**583**	**207**	**35,51%**
Ambatolampy	1 850	9	5	55,56%
Ambohibary	11 961	67	19	28,36%
Ambohimandroso	17 298	90	28	31,11%
Ambohipihaonana	10 680	42	12	28,57%
Ampitatafika	39 960	52	23	44,23%
Andranomanelatra	18 273	104	48	46,15%
Antanifotsy	40 840	71	24	33,80%
Antsoatany	11 805	76	25	32,89%
Morarano	11 010	59	23	38,98%
Soamanandrariny	4 600	13	2	15,38%
MIDDLE WEST	**71 600**	**280**	**86**	**30,71%**
Ambohimasina	4 638	27	11	40,74%
Ankazomiriotra	10 370	36	22	61,11%
Antohobe	3 180	16	4	25,00%
Fidirana	20 345	76	9	11,84%
Inanantonana	16 257	53	15	28,30%
Soavina	9 631	49	19	38,78%
Vinany	7 179	23	6	26,09%
Overall Total	**239 877**	**863**	**293**	**33,95%**

Challenges :

- Identification, training and collaboration with nurserymen in the Highlands of Vakinankaratra to produce forest seedlings near the peasants in this area
- Increase in forest cover to reduce the emission of greenhouse gases; achievement of the project objective (1,000,000 planted feet) during this 2nd year.
- Renewal of old fruit tree plantations and/or increase in area and adoption to diversify production and provide a regular income for households.
- Implementation of various hedgerows, reduce water and wind erosion on plots and produce biomass for composting and biological control

V.1.4 Promote other best practices

A lot of good practices were developed by Manitatra 2 project in its intervention areas:

- use of biological control as biocide treatment or repellent plants based on the experiences of BVPI project, GSDM and CEFFEL;
- different types of composting including vermicompost, classic compost, compost 7j, liquid compost (with introduction of biocide or repellent plants);
- Improvement of cowshed to collect manure and to optimize the quality organic manures production;
- installation of forage to improve milk production in the Region, based on FIFAMANOR's experiences;
- introduction of improved orange-fleshed sweet potato varieties to reduce the problem of food insecurity based on FIFAMANOR's experimences;
- development of rice-fish farming based on APDRA’s experiences

Table 20: Achievement on bio-pesticide and repellent plants development

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.4.1	Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants (based on the experiences of BVPI, GSDM, CEFFEL)	Number of farmers provided seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants	1 500	1 607	107%
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	10	10	100%
		Number of swath (for composting)	50	46	92%
1.4.3	Participate to improve cowsheds for quality manure and composting	Number of dairy farmers benefiting improved cowsheds for quality manure, for better of dairy cows and for composting	100	1	1%
1.4.4	Provide seeds of forage (grasses and legumes and off season forage…) and food safety plants (orange flesh sweetpotatoes) based on experiences of FIFAMANOR	Number farmers provided seeds of forage and food safety plants	500	285	57%
1.4.5	Provide fry and other equipment for farmers for fish raising in the paddy field or in ponds (base on the experiences of APDRA and CIRAD)	Number of farmers provided equipment and fry for fish raising in the paddy field or in ponds	50	-	0%

V.1.4.1 Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants

1,607 farmers, including 622 women, were supplied with biocide or repellent plant seeds from the project. This corresponds to 107% of the target in terms of number of beneficiaries for this first year.

500 strains of tansy, wormwood and comfrey were also made available to the lead farmers, through the collaboration with CEFFEL. The lead farmers have to multiply first, before disseminating.

Table 21 : Distribution of biocide and repulsive plants during year 1

Intervention Communes	Distributed quantity (kg)				Number of beneficiaries	Number of women	% Women
	Crotalaria	Mucuna	Tephrosia	TOTAL			
HIGHLAND	**84**	**773**	**490**	**1 347**	**1 060**	**464**	**43,8%**
Ambatolampy	5	35	16	56	30	15	50,0%
Ambohibary	7	121	61	189	184	92	50,0%
Ambohimandroso	13	64	37	114	108	36	33,3%
Ambohipihaonana	14	62	83	159	80	28	35,0%
Ampitatafika	4	61	36	101	60	34	56,7%
Andranomanelatra	25	91	75	191	223	111	49,8%
Antanifotsy	12	173	77	262	107	40	37,4%
Antsoantany	3	66	44	112	122	47	38,5%
Morarano	1	87	40	128	114	54	47,4%
Soamanandrariny	0	14	23	36	32	7	21,9%
MIDDLE WEST	**65**	**914**	**150**	**1 128**	**547**	**158**	**28,9%**
Ambohimasina	4	45	10	59	64	25	39,1%
Ankazomiriotra	4	47	11	62	52	17	32,7%
Antohobe	16	116	36	167	152	37	24,3%
Fidirana	14	251	30	295	87	17	19,5%
Inanantonana	10	251	18	279	87	28	32,2%
Soavina	3	92	28	122	89	35	39,3%
Vinany	14	113	18	145	80	24	30,0%
Overall Total	**148**	**1 687**	**640**	**2 476**	**1 607**	**622**	**38,7%**
Percentage (%)	**6%**	**68%**	**26%**	**100%**			

V.1.4.2 Provide worms for composting

One of important contexts in the Region is the difficulty in fertility management. In the highlands, farmers are already used to bring organic manure into fields. But their quality does not allow the short-term use by cultivated plants. Farmers usually mix park manures with Aristida which is a highly lignified plant and is decomposed very slowly. In the Middle West, the decline in livestock numbers combined with inappropriate cowshed is leading to low availability of manure quality.

However, the result of Manitatra 1 project allowed us to appreciate the benefits of vermicompost practice in order to correct this deficiency, and to produce quality organic fertilizer. And as planned in this year's activities, Manitatra 2 delivered 10kg of special worms to promote this technique.

Table 22: Achievement on providing worms for composting

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	10	10	100%

Apart from vermicompost, the Manitatra 2 project also continues to raise awareness about the practice of other types of composting. The classic compost is still the most used. Furthermore, after consultation and collaboration with CEFFEL, the project is also disseminating liquid composts. This technique is very easy to do. Only a container, water, zebus dung, and green leaves are needed. To have other advantages, biocides or repulsive plants should be incorporated in the mix to reduce the pests' disease.

Table 23 : Achievement on different types of composting during year 1

TYPE OF COMPOST	Number of composting swath	%
Type of organic fertilizer	**360**	**86%**
Classic Compost	183	44%
7 days Compost	60	14%
45 days Compost	55	13%
Recycled Manure	30	7%
Cermiicompost	22	5%
Liquid Compost	6	1%
30 days Compost	3	1%
21 days Compost	1	0%
Use of biocide or repulcive plants, and Management of organic fertilizer	**59**	**14%**
Compost liquide with biocide/repulcive plants	59	14%
TOTAL	**419**	**100%**

V.1.4.3 Participate to improve cowsheds for quality manure and composting

The idea is to have improved cowsheds, with a sheltered part, a hardwood floor, a manure collector and a manure pit. A regular renewall of the litter inside the cowshed makes it possible to produce organic manures (with quality and in quantity). This practice also facilitates the production of different types of compost. At the end of this first year, one improved cowshed was completed (1% of the objective of this period). But many constructions and/or rehabilitation are in progress. Sixty (60) demands were received for this activity.

Table 24: Achievement on improved cowsheds for quality manure and composting

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.4.3	Participate to improve cowsheds for quality manure and composting	Number of dairy farmers benefiting improved cowsheds for quality manure, for better of dairy cows and for composting	100	1	1%

V.1.4.4 Provide seeds of forage and food safety plants

As part of the fight against food insecurity and improving incomes of rural households, the project proposed to support improved milk production and to introduce improved orange-fleshed sweet potatoes. These

activities are based on the FIFAMANOR's experiences. However, the finalization of the agreement between the GSDM and FIFAMANOR is ongoing.

Table 25: Achievement on forage and food safety plants development

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.4.4	Provide seeds of forage (grasses and legumes and off season forage…) and food safety plants (orange flesh potatoes) based on experiences of FIFAMANOR	Number farmers provided seeds of forage and food safety plants	500	285	57%

At the end of this year, 1900kg of orange-fleshed sweet potato vine has been distributed in the Middle West of Vakinakaratra. 285 farmers, including lead farmers benefited on it (57% of the target for year 1). These varieties of sweet potato are short cycle. They are not photoperiodic. And the tubers are rich in vitamin A.

Table 26 : Orange flesh sweetpotatoes variety distributed

New variety of orange flesh sweet potato	Unité (kg)
Mendrika	580
Jane	420
Donga	300
Irène	300
Bôra	300
Total	**1 900**

V.1.4.5 Provide fry and other equipment for farmers for fish raising in the paddy field or in ponds

Table 27: Achievements for fish raising in the paddy field or in ponds

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.4.5	Provide fry and other equipment for farmers for fish raising in the paddy field or in ponds (base on the experiences of APDRA and CIRAD)	Number of farmers provided equipment and fry for fish raising in the paddy field or in ponds	50	0	0%

The project proposed collaboration with APDRA to accompany fish farming, including rice-fish farming. But, it need a long period of preparation before rice campaign and intervention during this first year is not appropriate. A collaboration agreement is being finalized. As it is said in the partnership par of this report, this collaboration will be carried out with the ATDRM (headed by APDRA).

Challenges :

- The use of biocide and repellent plants especially with MUCUNA to reduce the pressure of pests; to make a positive impact on the proliferation of Fall Army Worms (FAW)[4],
- Tackle the problem of lack of organic fertilizers, combined with the high cost of chemical fertilizers with the production of organic fertilizers (quality and quantity): vermicompost, 7 days' compost, classical compost, liquid compost, recycled manure ... Incorporation of biocide and repellent plants in these various types of compost also to generate positive impacts in the fight against pest disease.
- Improvement of cowshed facilitates the production of quality/quantity amnures, which is essential for the different crops
- Improvement of milk production, introduction of improved orange-fleshed sweet potato varieties, and the practice of rice-fish farming make an important contribution to increase household incomes and to reduce food insecurity in the Region.

[4] FAW: *Spodoptera frugiperda* was recorded in Madagascar for the first time in 2017. In 2018 this pest is affecting 50% of the maize crops in all the regions of Madagascar;

V.1.5 Purchase principal mean for upscaling activity

Table 28: Principal mean purchased or repaired for upscaling activity

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
1.6.1	**Purchase of Equipment**				
1.6.1.1	Purchase of motorcycles	Number of motorcycle	8	8	100%
1.6.1.2	Purchase of bicycles	Number of bicycles	50	50	100%
1.6.2	**Fuel and repairs**				
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	Number of Motorcycle use month	81	72	89%
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	Number of car hiring days	30	23	77%

For motorcycle, the budget is not sufficient for 8 new motorcycles. 5 new Motorcycles were purchased and 3 were repaired from Manitatra 1 motorcycles.

For bicycle, the budget is not sufficient for 50 new bicycles. 32 new bicycles were purchased and 18 were repaired from Manitatra 1 bicycles.

For fuel and repairs, 8 Motorcycles are already used during 9 months (since October).

About the 23 days of car hiring, it corresponds to backstopping mission.

V.2 Result 2: Capacity on various stakeholders is built in Climate Smart Agriculture

V.2.1 Train nurserymen in the technology of tree nurseries and in the choice of the appropriate tree species

Table 29: Trained nurserymen/women

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.1.1	Train Nurserymen/women	Number of Nursery men/women trained	20	27	135%

For this first year, 25 of the 27 nurseryman for Manitatra 2 project were already nurserymen who had collaborated with the Manitatra 1 project. Thus, project staff has simply made a few reminders about the nursery management to produce robust seedlings in time.

The 02 other nurserymen live in 02 of the 03 new intervention communes in the Middle West (Antohobe and Soavina). Similarly, they also worked with the NGO CARITAS on seedlings production of *Acacia mangium*.

Challenges:

- Continue to produce quality seedling from local nurserymen on one side; and sensitize farmers around to acquire these seedlings.
- Identify and train nurserymen in the Highlands to extend the reforestation action in all project areas.
- Continue with Acacia mangium in the Middle West.
- For the Highlands, use some suitable species as Liquidambar stryraaciflua. These species are highly adapted to the climatic condition on the Highlands, including frost. Other fast-growing species will also be tested such as *Paulawnia sp*

V.2.2 Train lead farmers and farmers in CSA

Table 30: Achievements on lead farmers and farmers training

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.2.1	Train Lead farmers (by project Technicians and other stakeholders)	Number of Lead farmers	50	50	100%
2.2.2	Support cost of farmers training by Lead farmers (Farmer to farmer approach, based on man-day spent on training of their peer farmers)	Number of lead farmers man days	4 200	2772	66%
	Training of adopters	Number of farmers trained	1 000	1 279	**128%**

As it was planned in the project document, 50 Lead farmers were accompanied, trained by project staff in Antsirabe and involved on "farmer to farmer approach" for extension. Lead farmers training is a continuous activity by project staff. The Challenge is to create local skills for CSA training (farmer to farmer approach).

2772 Man days of lead farmers correspond to 8 months of training by 50 lead farmers (7 days of intervention per month).

In general, the Lead Farmers benefit from the training and accompaniment of the project technicians and the other partners in collaboration with the project. These trainings can be done individually and directly at the FFS level; or by lead farmers in group session. Depending on the period of the year, each agroecological thematic developed by the project should be the subject of lead farmers training so that they can train and accompany their pairs in turn. In most cases, the leader and / or technician farmers organize training in the FFS, with practices and experience sharing between the participants.

Table 31 : Adopters group training by lead farmers in FFS during the year 1

Group training	Cumulative achievements			
	Session number	Participant Nb	Women Nb	% Women
Ambohipihaonana	3	48	10	20,83%
Ambohimandroso	1	6	1	16,67%
Ampitatafika	1	47	26	55,32%
Ambohibary	8	61	50	81,97%
Sambaina	1	16	5	31,25%
Antsoatany	2	33	25	75,76%
Higland subtotal	***16***	***211***	***117***	***55,45%***
Soavina	11	137	53	38,69%
Antohobe	15	224	56	25,00%
Inanantonana	2	24	11	45,83%
Ankazomiriotra	17	395	123	31,14%
Vinany	5	175	40	22,86%
Fidirana	8	113	27	23,89%
Middle west subtotal	***58***	***1068***	***310***	***29,03%***
OVERALL TOTAL	**74**	**1279**	**427**	**33,39%**

The challenge is that CSA is up scaled and Lead farmers play the key role of farmers to farmers' approach for upscaling.

V.2.3 Train secondary school students in CSA

Table 32: Achievement on CSA training activity for secondary school students

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.3.1	Make Diagnosis to select beneficiary schools	Number of diagnosis to select beneficiary schools	1	1	100%
		Number of selected schools	12	12	100%
2.3.2	Organize Events (Commitment charte event, Tools delivery)	Number of Event	2	2	100%
2.3.3	Organize Training for Ministry Branch (OEMC/DREMC/BEMC)	Number of session organized for training for Ministry Branch	1	1	100%
2.3.4	Organize Training for teachers (3 sessions of training in Vakinankaratra)	Number of session organized for training for teachers	3	3	100%
2.3.5	Training Tools (tarpauling, booklet, teacher guideline, langage-photo) - 6 new schools	Number of training tools pack	1	1	100%
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	Number of communication tools pack	1	1	100%
2.3.7	Produce Film for communication	Number of film for communication produced	1	-	0%
2.3.8	Produce Cartoon strips for school children	Number of cartoon strips produced for school children	0	0	-
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	Number of demostration plot	12	12	100%
2.3.10	Accompany students in the implementation	Number of school children trained	2 000	1 965	98%
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	Number of competition organized of best school	0	0	-
2.3.12	Exchange visits between School	Number exchange visits between School	1	3	300%
		Number of participants to the exchange visits between school	24	77	321%
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	Number annual workshop days	0	0	0%
2.3.14	Car hiring for training, monitoring and other actions for secondary school	Number of car hiring days	20	5	25%

V.2.3.1 Disgnosis and school selection

This activity began with the identification of the 6 new beneficiary primary school through a diagosis mission, carried out jointly with the GSDM team and the OEMC (National Ministry of Education branch which ensure environmental education).

Table 33 : List of 12 school benefiaries of the project activities

N°	School name and locations	Status	Adress	Commune	CISCO	Zone
New primary schools (05 primary schools in the highland et 01 in the Middel West)						
1	CEG Ihazolava	Public school	Ihazolava	Ambohipihaonana	Ambatolampy	Highland
2	CEG Ambohimandroso	Public school	Ambohimandroso	Ambohimandroso	Antanifotsy	Highland
3	CEG Ampitatafika	Public school	Ampitatafika	Ampitatafika	Antanifotsy	Highland
4	Lycée Privée Loterana	Private	Antanifotsy	Antanifotsy	Antanifotsy	Highland
5	CEG Antsoatany	Public school	Antsoatany	Antsoatany	Antsirabe II	Highland
6	CEG Annexe Soavina	Public school	Antokofoana	Soavina	Betafo	Middle West
Previous beneficiary primary school (02 primary schools in the highland et 01 in the Middel West)						
7	CEG Vinaninkarena	Public school	Vinaninkarena	Vinaninkarena	Antsirabe II	Highland
8	Collège Privée AINA	Private	Vinaninkarena	Vinaninkarena	Antsirabe II	Highland
9	CEG Alakamisy Anativato	Public school	Alakamisy Anativato	Alakamisy Anativato	Betafo	Middle West
10	CEG Betafo	Public school	Betafo	Betafo	Betafo	Middle West
11	CEG Ankazomiriotra	Public school	Ankazomiriotra	Ankazomiriotra	Mandoto	Middle West
12	CEG Vinany	Public school	Vinany	Vinany	Mandoto	Middle West

The notification of the beneficiary primary school was followed by signing of the commitment charters. This is a tripartite commitment within stakeholders (Primary school, OEMC / MENETP, GSDM).

For a better coordination of activities monitoring, and also for information and sensitization, a training of the OEMC agents and DCI designers (curricula designer) was organized in February 2019. It's a technical training on Agroecology, followed by an exchange visit to the Ceffel center in Andranobe Antsirabe. The training lasted 4 days and saw the participation of 18 persons, including 8 OEMC agents and 10 DCI designers. This training allowed the project to provide the technical elements necessary for writing the new Sector Plan of Education. This is also an advocacy action aimed to integrate Agroecology and CSA into public policies, in particular taking it into account in the national education system.

V.2.3.2 Provision of educational tools

As for the pilot phase, GSDM has planned the provision of educational tools and agricultural equipment to 6 new colleges to help and facilitate the learning of agroecology. The delivery of these goods had been done in January 2019.

Table 34 : List of materials delivered at each of the 06 new schools

Materials delivered for each school	Unit		Quantity
Sprayer 16 liters	Unit		1
Watering can (plastic model)	Unit		1
Wheelbarrow	Unit		1
Shovel (with handle)	Unit		2
Spade (with handle)	Unit		2
Rake (with handle)	Unit		1
Fork (with handle)	Unit		2
Plastic plate	Unit		4
Plastic botlle (50 liters)	Unit		2
Annealed wire	Kg		0.5
Nylon rope (6cm of diameter)	Roller		1
Nylon rope (2cm of diameter)	Roller		1
Bags	Unit		4

02 teachers training sessions were done this year, in particular in january 2019 and april 2019. The first session was also marked by the official delivery of educational tools and equipment / agricultural tools for the 6 new schools. The second session is about the off-season practice. These training sessions were organized and conducted jointly with the OEMC team. Each session was honored by the presence of the Vakinankaratra Regional Director (of National Education, Technical and Vocational Education) and saw the participation of 4 representatives per school, and BEMC (from the 4 CISCO concerned).

Table 35 : List of teaching tools delivered to the 06 new schools

Teaching tools	Number
5 types of training tarpaulins (1 copy each) > Comparison between Conventional Agriculture vs Agroecology > Association/Rotation System > Contour line (and use of frame A) > Agroforestry > Compost	5
Notebook 200p Large Format	9
4 color pen (black, blue, red, green)	4
4 color marker	8
Glue	2
Ruler	4
Roll flip chart	1
Chisel	2
Masking tape	2
Pencil	4
Laminated photo	30
Frame A for contour line	1

V.2.3.3 Communication tools

To support the visibility of Agroecology and Climate smart agriculture as part of the Manitatra 2 project, the design of various media and communication tools is planned. Among these tools, the design and edition of a project file, a roll-up, various purchase vouchers (used for the supply of seeds and seedlings) and also various training tarpaulins, intended for pupils training.

No film was made during this year. However, shooting works took place, mainly on the official launching ceremony, as well as various training sessions. These data will be used during year 2 for the production of technical films on good agricultural practices. These films will be used for awareness but also for training tool.

To accompany the integration of Agroecology in schools, the project has planned in year 2 the realization of cartoon based on the produced booklet. It will be a fun training tool designed to strengthen the understanding of Agroecology by a wide audience, especially to attract the attention of pupils. The project will thus appeal to audiovisual professionals to carry out this project.

V.2.3.4 Demonstration plots in school level

Respecting the cultural calendars, the implementation of the demonstration plots in each school was prioritized. It is proposed to advocate the importance of the agroecology introduction in education system in Madagascar. It belongs to the students, supervised by the trained teachers and accompanied by the project technicians to carry out all the activities at the plot level.

Thus, the inputs and seeds needed for implementation were granted and delivered at the level of each establishment. Currently, 12 demonstration plots on Agroecology and climate smart agriculture are implemented.

Table 36 : Summary of inputs delivered to the 06 new schools

INPUTS	UNIT	CEG Ambohipihaonana	CEG Ambohimandroso	CEG Ampitatafika	CP FLM Antanifotsy	CEG Antsoatany	CEG Annexe Soavina	TOTAL
Tsipolitra (upland rice)	kg	0	0	0	0	0	1	1,00
Maïze Meva	kg	1,5	1,5	1	1,5	1	0,5	7,00
Black Mucuna	kg	2,25	2,25	1,5	2,25	2,25	0,5	11,00
Cowpea (var David)	kg	0,5	0,5	0,5	0,5	0,5	1	3,50
Stylosanthes	kg	0	0	0	0	0	0,1	0,10
Crotalaria gramiana	kg	0,1	0,1	0,1	0,1	0,1	0,1	0,60
Tephrosia vogelli	kg	0,35	0,35	0,3	0,35	0,35	0,3	2,00
Comfrey	Rooted cuttings	15	15	15	15	15	15	90
Persimmon	Plantlets	10	10	5	10	10	0	45
Agrumes	Plantlets	10	10	5	10	10	20	65
Seed dressing	Bag of 4g	2	2	2	2	2	2	12
NPK	kg	4,5	4,5	3	4,5	4,5	3,5	24,50
Urée	kg	2,5	2,5	2	2,5	2,5	1,5	13,50
Chemical insecticide	100ml	1	1	1	1	1	1	6,00

V.2.3.5 Beneficiary school children

1,965 school children benefit from this program. This is 98% of this year's goal. The 1,007 students are among the beneficiaries of the pilot phase and the other 958 are the number of student beneficiaries at the 06 new schools.

Table 37 : Number of students benefiting from the project at the 06 new schools

Primary school	Cisco	Grade 6	Grade 7	Total
CEG Annexe Soavina - Antokofoana	Betafo	109	67	176
CEG Antsoatany	Antsirabe II	44	78	122
Lycée Privée Loterana - Antanifotsy	Antanifotsy	24	39	63
CEG Ampitatafika	Antanifotsy	46	100	146
CEG Ambohimandroso	Antanifotsy	178	113	291
CEG Ihazolava	Ambatolampy	88	72	160
TOTAL		**489**	**469**	**958**

03 exchange-visits for the staff of the 12 schools were organized during this year (300% of the year 1 target).

77 teachers took part in these visits, which is 321% of the target for this first year. These visits allowed participants to share their apprehension about the project and the agroecology and CSA practice. Discussions were focused on each school organization to ensure the implementation of the project, the motivation of the school children, the appreciation of the parents, as well as the impacts of the project in a global way. In addition, local exchange was also organized for some teachers who did not trained by GSDM and OEMC/ MENETP. This is intended to involve more staff from all 12 institutions in this process.

Challenges :

- Sensitize and train teachers on CSA and agroecology and environmental protection, in charge of ensuring the transfer of knowledge to students and sharing with their peers;
- Involve schools in sensitizing parents and farmers around the demonstration plot in Agroecology and CSA, student sharing and testimonials on the practice of agroecology;
- Sensitize and train school chirldren on the issues of current agriculture and the degradation of the environment. Enhance the value of the farming profession through the adoption of good agricultural practices;
- Sensibilize policy makers, technical and financial partners for the integration of agroecology and CSA in public policies and its inclusion in projects/programs related to sustainable agriculture.

V.2.4 Organize training sessions targeting development actors such as farmer's organizations, NGO and services providers

Table 38: Achievement for training sessions on CSA for development actors

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	Number of participants from development actor trained	1	0	0%
2.4.2	Organize exchange visit in the training sites of GSDM	Number of participants to exchange visit in the training sites of GSDM	800	1 306	163%
2.4.3	Car hiring during training sessions (6 days per session)	Number of car hiring days	6	0	0%

The reception of visitors (trainees, researchers, technicians and farmers) was organized on the site of Ivory and on the adopting farmers of the Manitatra 2 project. For the first year of the project, there were 1306 registered visitors, of which 30 decision makers, 20 researchers, 318 technicians, 105 students and 833 farmers. The organization of training sessions targeting development actors such as NGOs, local service providers is postponed for the next year.

V.2.5 Involve regional Directorate of Meteorology in Climate Smart Agriculture Conservation Agriculture and Agroforestry

Table 39: Achievements for DGM involvement

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.5.1	Organize Information/sensitization of local stakeholders	Number of local stakeholders sensitized on Climate change by regional Meteorology officer	1	0	0%
2.5.2	Organize Training workshop for local stakeholders	Number of training workshop session	1	0	0%
		Number of participants trained on Climate Change and information bulletins	30	0	0%
2.5.3	Provide regional Meteorological information bulletins (quarterly)	Number of information bulletins provided	200	0	0%
2.5.4	Provide perdiem for meteorological officer	Number of METEO officer home day intervention	2	0	0%

This activity is postponed for the next year. The agreement with the Regional Meteorological Service is currently being finalized. These activities should be started at the beginning of the second year.

V.2.6 Involve the Ministry of Agriculture and Livestock and Fisheries (MAEP) and Ministry of Environment and Forestry (MEDD) or regional directorates

Table 40: Achievements by involving MAEP and MEDD

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.6.1	Organize field collaboration and exchange by MAEP + MEDD	Number of mission	1	0	0%
2.6.2	Organize field collaboration and exchange by regional directorates (DRAEPP + DREDD)	Number of concerned DRAEPP	1	1	100%

As it is specified in the partnership part of this report (part II), all collaborations with Governments Ministries and Institutions was postponed due to the election and the constitution of new government members, Ministry staff and Regional staffs. Agreement with the DRAEP and DREDD was already signed to begin a real collaboration during the second year.

V.2.7 Participate in CSA integration into public policies

For CSA integration into public policies, the principal activity is to participate to workshops or meeting to advocate CSA.

Table 41: Achievements on advocacy through workshop participation

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)	Number of workshop on CSA in which the GSDM take part	1	1	100%
2.7.2	Participate to workshops or meeting on climate change to advocate CSA (no cost)	Number of workshop on climate change in which the GSDM take part	1	1	100%

GSDM has participated in the seminar on climate change organized by ABC Mention (Antananarivo University). GSDM will try to participate to a meeting for CSA advocacy for each opportunity.

V.3 Result 3: Farmer organizations are supported and linked to various stakeholders in Agriculture

V.3.1 Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks

Table 42: Activity to support FOs to participate in the development of NAP for CC and other climate change frameworks

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
3.1.1	Organize awareness raising on Climate Change targeting development actors as farmers organizations, NGO, local service provider	Number of session for awareness rising on climate change	1	0	0%
		Number of participants informed on Climate Change framework			
3.1.2	Car hiring during training sessions (2 days per session)	Number of car hiring days	2	0	0%

This activity requires collaboration with SRM (Regional Meteorological Service)/ DGM (General Direction of Meteorology. Agreement is being finalized, it is also shifted at the beginning of the second year.

V.3.2 Support FOs to maintain continuous exchange with FDA and FDAR in order to make a link between farmers and agricultural services

FDA and FDAR are the state promoted development mechanisms in national and regional level. The project activity is to make a link for these devices and FOs in order to ameliorate agricultural service access, especially the permanent agricultural funding system.

Table 43: Activity for permanent link with FDA and FDAR

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
3.3.1	Ensure Permanent exchange with FDA (state promoted development device in national level) in order to make a link with government development orientations	Number of concerned FDA	1	1	100%
3.3.2	Ensure Permanent exchange with FDAR (state promoted development device in regional level) in order to make a link with government development orientation	Number of concerned FDAR	1	1	100%
		Number FOs benefiting finance from FDAR	30		

Exchanges and discussions with FDA wera carried out frequently but no actions yet planned because the FDA are still in the restructuring phase. This device does not yet have fund to assume its roles. For information, an orientation meeting was held at the DRAEP office on July 17, 2019 with the participation of the members of the CROA, the FDA Vakinakaratra, the DRAEP and some partner projects / programs. The objective was to help the CROA program the planned service fund for the Region for 3 years (2019-2020-2021).

The challenge is that FDA prioritize actions for CSA upscaling.

V.3.3 Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider (CSA) to make a link between the farmers and the agricultural services

The Agricultural Service Center namely CSA is a state promoted development mechanism to make a link between farmers and agricultural service in District level. The activity of the project is to make permanent link between these Center and FOs.

Table 44: Activities ensuring utilization of Agricultural Service Center

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
3.4.1	Ensure Permanent utilization of Agricultural Service Center to make a link between farmers and agricultural service	Number of concerned CSA (Agricultural Service Center)	6	5	83%

Exchanges between the project local staff and the CSA are carried out periodically. However, the current FDA context Vakinakaratra reduces the effectiveness of each CSA, even if the situation is different from one CSA to another. For information also, on July 11 and 12, 2019, two exchange visits were organized with representatives of the five CSA (Antsirabe II, Antanifotsy, Ambatolampy, Betafo and Mandoto), representatives of the POs, and representatives of service providers linked to these CSA. The purpose of these visits was to stimulate the interests of each stakeholder on the different agroecological themes and Climate Smart agriculture promoted by the project. It should be noted that the project intervenes on the 05 of the 06 Districts of Vakinakaratra; there is no action in the Faratsiho District.

V.3.4 Support FOs on their collaborative contracting with various partners

Table 45: Activities for supporting collaborative contract with various partners

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	Number of FOs on rice/fish ecosystem trained by APDRA	10	0	0%
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	Number of FOs trained on dairy cattle, improved cowsheds and forages by contracting with FIFAMANOR	20	0	0%
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	Number of FOs trained on best practices, bio-pesticides and fruit trees by contracting with CEFFEL	10	0	0%

Actions with theses partners are already detailed in the part II of this report (partnership). The beginning of this action prioritized training of the project local staff and lead farmers. Action woth farmer organization will begin in the second year.

V.4 Communication and visibility

V.4.1 Visibility and communication events organization

Table 46: Achievements on visibility and communication events organization

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	Number of streamer	2	4	200%
		Number of roll up	2	1	50%
4.1.3	Car hiring for all communication and visibility action	Number of car hiring days	20	0	0%

During the first six months, the inception workshop was organized by the project. The principal activity for each event are oriented on designing and edition of project sheet, project poster, project stamps, bill boards, roll up description of Manitatra 2 project. This activity of designing and edition of other communication tool is still planed for each communication event. The Challenge is the visibility of the project and CSA upscaling.

V.4.2 Publications and broadcasting

Table 47: Communication activities related to publications and broadcasting

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
4.2.1	Broadcasting on national TV	Number of TV broadcasting	2	1	50%
4.2.2	Broadcasting on national Radio	Number of Radio broadcasting	10	10	100%
4.2.3	Expenses related to attendance of journalists or reporters in events for publication on TV or newspapers	Man-day of reporters (20 reporters x 5events)	40	32	80%
		Number of newspapers' publication	8	9	112%
		Number of publication type (online & social media)	2	2	100%
		Number of TV events broadcasting	2	1	50%
		Number of Radio events broadcasting	2	1	50%

During the first 6 months, the Manitatra 2 project was broadcasted during the FIVOHY program (Radio broadcasting) each month (during 10 months). It is planned to continue broadcasting on national Radio.

Reporters participated during the inception Workshop, during the convention signature of the agremment with the National Education Ministry.

These event was published in local press (see the GSDM pressbook), in online publication. The inception workshop was also broadcasted by RNM (National Radio) and Vakinankaratra Local Media. A movie based on Manitara 2 and other project achievements was broadcasted in the National TV.

Manitatra 2 events were also published in the “Journal of Agro-Ecology N °5-6-7”. Moreover, publication on facebook is done continuously.

Challenges for these activities are also the visibility of the project and CSA upscaling.

V.4.3 Documentaries conception and edition

Table 48: Activities for documentaries conception and edition

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
4.3.2	Editing of films for each project events	Number of films	5	0	0%

It is planned to edit films for each project events. Shooting of films was realized during inception workshop and each training session but the film will be edited later. The challenge is also about the visibility of the project and CSA upscaling.

V.5 Project administration (human and equipment)

V.5.1 PMU officials recruited

Table 49: PMU staff recruited

	PMU -title	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
5.1.1	National Technical Assistant (Project Leader)	Months	11	9,5	86%
5.1.2	Assistant of project leader	Months	11	9	82%
5.1.3	Technician Agro ecology (Highland+ Middle West) (6 technicians)	Months	66	57	86%

All PMU staff has been recruited and operational since 15 September 2018 for the Project leader and the 06 technicians (9,5 man-months for each) and since the 01st October for the project leader Assistant (9 man-months).

V.5.2 GSDM Backstopping fully implemented by his key staff

Table 50: GSDM backstopping

	GSDM backstopping key role	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
5.2.1	Director (2 months per year)	Months	2	2	100%
5.2.2	Agronomist (2 months per year)	Months	2	2	100%
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers	Months	4	4	100%
5.2.4	Agro economist (2 months per year)	Months	2	2	100%
5.2.5	Communication Officer (2 months per year)	Months	2	2	100%
5.2.6	Agronomist Vakinankaratra (2 months per year)	Months	2	2	100%

GSDM senior staff provided technical and administrative backstopping during one year as planned.

V.5.3 Local missions

Table 51: Per diem for GSDM and project staff

	Concerned staff	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
5.3.1	Per diem for GSDM national staff	Days	200	160	80%
5.3.2	Per diem for local staff	Days	100	46	46%

Various missions have been achieved since October 2018 with 160 days for GSDM national staff and 46 days for GSDM local staff.

V.5.4 Mean and equipment implementation

Table 52: Mean and equipment

	Type of mean and equipment	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
5.4.3	**Offices renting and communication**				
5.4.3.1	Regional office renting	month	12	11	25%
5.4.4	**Equipment**				
5.4.4.1	PC/laptop	Unit	4	4	100%
5.4.4.2	Printers/scanner/photocopiers	Unit	2	2	100%
5.4.4.3	Digital camera	Unit	2	2	100%
5.4.4.4	Video projectors + screens	Unit	2	2	100%
5.4.4.5	Hard disks	Unit	1	1	100%
5.4.4.6	Other equipment (flat rate per technician)	Per technician	6	6	100%
5.4.4.7	Communication/courier and other coordination expenses	Unit	1	1	100%
5.4.5	**Spare parts for hard ware and other office machineries**				
5.4.5.1	Spares (hard ware, photocopiers etc.)	year	1	1	100%

The regional office has been rented since the 1st of September (10 months+one month already paid).

All Means and equipment were purchased.

V.6 Project oversight

V.6.1 Steering committee

Table 53: Steering committee planning

	Planned Activities during the period	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
6.1.1	Steering committee establishment	Steering committee established	1	1	100%
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	Number of steering committee meetings	1	0	0%

As decided by GSDM board members in November 28, 2018, the project steering committee are made of a panel of 7 persons:

1. One representative of the Ministry of Agriculture and Livestock and Fisheries (MAEP);
2. One representative of the Ministry of Environment and Sustainable Development (MEDD);
3. One representative of the Regional Direction of Agriculture and Livestock and Fisheries (DRAEP) in the Vakinankaratra;
4. One representative of the Regional Direction of Environment and Sustainable Devlopment (DREDD) in the Vakinankaratra;
5. One representative of the Vakinankaratra Head of Region
6. The Chairperson of GSDM Board;
7. One Deputy Chair of GSDM Board.

All project steering committee members was nominated by the respective Ministers for Ministries (MAEP and MEDD). The first steering committee will be planed during the first quarter of the second year.

V.6.2 Monitoring and Evaluation of the project

Table 54: Monitoring and evaluation program

	Expected Result / Planned Activities	Indicator	Target (Year 1)	Actual Achievement	
				Ach.	%
6.2.1	Base line study through external expertise	One base line study	1	1	100%
6.2.7	Car hiring for monitoring and evaluation	Number of car hiring days	30	0	0%

The baseline study was launched in November 2018 by external expertise (by GEOSYSTEM and DEVELOPMENT). Interviews and survey were done in November and December. This activity is still ongoing and should be finalized during the next quarter. The challenge is to reinforce data for the project baseline.

VI- LESSONS AND CHALLENGES

VI.1 Lessons learned from this first six months

As lessons learned from the first year, it was observed that in the highlands of the Vakinankaratra, farmers practice dry sowing for upland crops (rice and Maize). According to farmers, peak of works and overlapping activities at the beginning of rainy season are the main reasons for this practice. During this period, farmers are busy in the lowland paddy fields. The impact for the project activity is that many farmers have already sown the main upland crops during the implementation phase of the project. It was therefore difficult for technicians to plan with farmers some systems. Intercropping cover crops in conventional system was the only solution for project staff.

Linked to this sowing period, it is also observed during this season that the outbreak of the Fall Army Worm[5] (FAW) recently introduced in the Country, is reduced in early planting for the maize crop. Late sowing is strongly attacked or sometimes resulting in 100% loss of the crop. Lessons learned from PLAE project in the Boeny regions shows that rotations and association with mucuna drastically reduced the FAW impact (RAKOTONDRAMANANA, 2019[6])

Farmers have a great interest for food legumes crop like cowpea and *Vigna umbellata*. These legume crops should be integrated into the cropping systems (associations and rotations). Their introduction into production systems would contribute to the food and nutrition security.

Farmers in the Highland of Vakinankaratra systematically use organic fertilizers based on farm manure and chicken manure available in this area, and also chemical fertilizers at low rate. In the Middle West, vermicompost introduced during Manitatra 1 project is well adopted and tend to scale up (some farmers produce it themselves and some farmers buy). These organic farming systems are in favor of vegetative growth conditions on crop.

It was found that there are many abandonments of Stylosanthes system especially for poor farmers (observation in the Manitatra 1 project intervention area). Socioeconomic study has also shown that below 3Ha of utilized agricultural land for farmers, Stylosanthes system needs to be adjusted for small farmers. After two or three years of good biomass of Stylosanthes to regenerate soil fertility, it is necessary to go back to tillage and to switch to rotation with annual or climbing legumes (cowpea, mucuna etc..). But even after tillage Stylosanthes will come back from seeds left in the soil and therefore the no till system may be continued but with annual cover crops.

In the situation of new area of the Highland, selection of lead farmers was hampered by lack of previous experiences in the area. Therefore, limited targets were fixed for them during the first 6 months. The highlands is the area for dairy cattle breeders, but it appears that although these farmers are very useful for the integration of Agriculture and livestock, they are normally very busy farmers and therefore, have very limited time to train their peer farmers.

During this year, the cover crop seeds supplies are important and show the existence of demands all over the country.

VI.2 Challenges

The main challenges of the project, especially in the highland is to combat the monoculture of upland rice and maize, a practice of mining agriculture resulting in land degradation and in some place in shifting agriculture. For this to happen, a lot of training is required to achieve a swift of paradigm from a secular monoculture system to associations and rotations of crops.

Forestation in the highlands needs to test rapid growth trees like Liquidambar and Polownia.

The problem of erosion is a good challenge in the Project area. If the contour farming and terracing have been practiced and well known in the Highland of Vakinankaratra, it is not the case in the Mid West. Combined with Conservation Agriculture, hedgerow and reforestation, it is a big challenge to develop contour farming and hedgerows because most of the soils in the Mid-West are on steep slopes and therefore very sensitive to erosion. A lot of awareness risings need to be done in this area.

Control of insect attack in an agro-ecological way remains a big challenge. This year, there has been a high pressure of FAW in maize crop and other worms' attacks. Most of high crop losses occurred in conventional cropping systems but the attacks were low in well managed CSA systems especially where rotation with good biomass of mucuna was practiced. Also early survey of the maize crop is required to apply the appropriate crop protection. Integrated crop protection is privileged rather than insecticides sprayings (RAHARIMANANA H, 2019[7]).

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[5] FAW : *Spodoptera frugiperda*

[6] RAKOTONDRAMANANA, 2019, Rapport de mission de capitalisation dans la région du Boeny pour le compte du PLAE, 17 au 23 Février 2019

[7] RAHARIMANANA H, 2019, Presentation of the FAW at the Research Development interface workshop, Antsirabe, 6 and 7 February, 2019

For the next season, the targets have been increased to compensate the problem of late implementation of the project. So seed access should be well managed. It is important to plan local production of seeds from now onwards, especially in the highlands. Local multiplication of seeds and plants is already important in the Middle West through the Manitatra 1 project impact. It will be a big challenge in the Highlands.

More effective partnership with targeted partners as planned in the Project document is a real challenge from now. Partnership was not yet well developed during this first 6 months, especially with Government institutions because of the Presidential election during this period.

Plan of actions for year 1 and Procurement Plan were approved by the Board and Inception Workshop was achieved. Nominations for the Project Steering Committee will be solicited during the next 6 months and the first meeting is planned during this period.

Financial auditing of GSDM accounts, including the project accounts, by an accounting firm is scheduled early march 2019. Auditing of the project accounts by COMESA Auditors is also expected during this period.

VII- RECOMMENDATIONS

Lessons learnt from the six months were leading to the following recommendations:

- Partnership with the targeted institutions in the project document needs to be ireinforced as possible, namely with the Ministry of Agriculture, Livestock and Fisheries and his local branch (DRAEP), the Ministry of Environment and Forestry and his local branch (DREDD), the Directorate of Meteorology and his local Branch and with local NGO's or institutions (CEFFEL, APDRA, FIFAMANOR).
- Due to high erosion with conventional systems resulting from high rainfall during the last 3 years, it is a high challenge to upscale contour plantings along with CSA in the Mid-West.
- Building capacities of lead farmers on best practices and biopesticides is planned with contribution of CEFFEL, one member of GSDM well involved in these activities.
- Training of lead farmers is also a big challenge especially in the new area of the highland. Contracting with the Crop Protection Service for training lead farmers on the FAW outbreak is very URGENT. During this period, some lead farmers have to be changed because of incompetence or low achievements of the targets. This implies a need for strong training and coaching by the project staff. Also exchange visits between communes and outside communes are key activities to be implemented during the next period.
- Scaling up of Ecosystem based adaptation (Eba) is a big challenge for the project. It seems to be possible with afforestation, agroforestry and fruit tree planting but not for soil regeneration and the fight against erosion in the landscape in the Mid-West where the *lavaka*[8] erosion still occur in many watershed destroying the irrigation system and other infrastructure in the lowlands. Scaling up of Eba is also based on mass awareness risings and the quality of the Famers Fields Schools (FFS) managed by the lead farmers. These activities are prioritized during the next period of 6 months and also to prepare the cropping season 2019 – 2020.

[8] *Lavaka* erosion: ravine erosion, specific for Madagascar: drastic ravine followed by landslides

VIII- CONCLUSION

This first year of the project (as of July 2019) was experiencing good achievements. Training of staff and lead farmers and team building were the big contrinbution of senior staff through backstoppings. Even though, two technicians and some lead farmers had to be fired for low performances. In some point, this has hampered some achievements. The project had to comply with national change in the Country, meaning that partnerships with government isntitutions were slowed because of Presidencial Election in the Country.

Lessons learnt from this period will along with the political stability in the Country will hopefully improve the achievement in year 2 and 3.

On average, the achivements were relatively high except for some activites which were egaged at least at the end of the period. It is recommended that for some activities like reforestation and cover crops, most of the planned activities in year 2 and 3 be planned in year 2 and most activities in year 3 will rely partly on FDA.

IX- APPENDIX

Appendix 1: Technical achievements following the logical framework

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
1.	RESULT 1 : CSA and best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar										
Activity 1.1	Conduct awareness raising, advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries										
1.1.1	Inception workshop	Number of workshop	1	1	100%	0	0%	1	100%		
1.1.2	Exchanges visites between & inside communes	Number of participants in exchanges visits inside communes	2 400	1508	63%	273	11%	1 781	74%	During this quarter, these visits are organized at the FFS level of the leading farmers. During this period, various compostings, market garden crops, preparation of plot development (installation of contours) are generally the focal points of the discussion. 37% of participants registered during these visits are women.	Continuation of the organization of intra-municipal exchanges visits (at the level of the FFS, adopters and CEG (secundary schools)), and extra-communal exchanges visits in order to prepare the 2019/2020 agricultural campaign.
		Number of participants exchanges visits between commune	200	511	256%	7	4%	518	259%	Trainees from training center CAFPA in Antsirabe came to see the realization of the Manitatra II project in the municipality of Soavina. There were 147 women (28%) who attended these visits.	
	Awareness, Information and communication about project activities	Number of participants	2 000	1724	86%	518	26%	2 242	112%	The sensitization sessions and Info-com carried out during this period are intended to prepare the next agricultural campaign. The objectives, expected results and methodologies adopted by the project are set in advance. A total of 695 women, 31% participated in these sessions.	
1.1.3	Car hiring and other expenses during awareness raising	Number of car hiring days	40	23	58%	4	10%	27	68%	> 4 jours durant l'atelier de lencement officiel > 4 jours de visite échange PL > 19 jours de visite échange des adoptants	
Activity 1.2	Upscale Conservation Agriculture to support the growing of up land rice and other crops										
1.2.1	Provides seeds of cover crops (mucuna, stylosanthes, cowpea…)	Number of farmers provided seeds of cover crops	1 500	1639	109%	1 824	122%	1 824	122%	There was no more crop planting using Conservation Agriculture during this period. However, uniform Stylosanthes regrowth was observed on the plots implemented during Manitatra I which were plowed at the beginning of the rainy season. 558 women were registered among the adopters of the conservation agriculture technique (about 33%). It should be noted that Mucuna constitutes the major part of seed distributed with a proposal of 55%, followed by Cowpea (32%).	Collection of yield data, and plot preparation for the next crop year. Harvesting the seeds of cover crops
		Acreage of full Conservation Agriculture (ha of CA)	500	527,94	106%	75,55	15%	603,49	121%		

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
1.2.2	Support for Stylosanthes rollers	Number group farmer provided Stylosanthes rollers	-	0	0%	0	0%	-	0%		
Activity 1.3	**Upscale agroforestry and forestation (equipment and seed support to nurseryman and adopting farmers)**										
1.3.1	Support tree nurserimen (potting bags, other materials...)	Number of tree nursery man supported	20	27	135%	0	0%	27	135%		Identification and training of nurserymen on the highlands and other extension areas.
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus…)	Number of trees plantlets for reforestation	500 000	557 351	111%	0	0%	557 351	111%	2853 farmers, including 596 women, have carried out this reforestation activity with the support of the Manitatra 2 project. More than 65% of the reforested seedlings consist of Acacia mangium, followed by the different species of Eucalyptus.	Monitoring and maintenance of plantations ;
1.3.3	Support adopting farmers in fruit tree plantlets	Number of fruit plantlets of farmers adopting	10 000	5325	53%	1 202	12%	6 527	65%	554 farmers, of which 173 women (31.8%) benefited from the project grant in the field of fruit growing and cash crops. Orange, peach, persimmon, apple and pear are the fruit species most in demand by producers.	Monitoring and maintenance of plantations
1.3.4	Provide seeds of hedgerows (Cajanus, Tephrosia….)	Number of farmers provided seeds of hedgerows	2 000	1297	65%	1 468	73%	1 468	73%	Among the seed recipients, there are 566 women, or 38.6%." During this campaign, Tephrosia was the most used species with 59% of the seeds and 77% of the length of hedges achieved.	Monitoring and maintenance of plantations
		length of hedgerow (en mL)	255 000	161091	63%	78 786	31%	239 877	94%		
Activity 1.4	**Promote other best practices (bio-pesticides and repellent plants, technology of composting, improved organic fertilizers, forages, species for food safety as orange flesh sweet potatoes..., regenerative income activity as vegetables…)**										
1.4.1	Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants (based on the experiences of BVPI, GSDM, CEFFEL)	Number of farmers provided seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants	1 500	1478	99%	129	9%	1 607	107%	Among the beneficiaries, there are 622 women. Challenges: valorization of biocidal and repellent plants to reduce the pressure of pests; to make a positive impact on the proliferation of autumn armyworms, especially with mucuna.	monitoring and maintenance of plantatins
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	10	10	100%	0	0%	10	100%	Apart from the 10kg of decomposing worms made available to farmers during the previous quarter, those delivered during the Manitatra 1 project also speed up dispatching in the area. This type of composting is of great interest to farmers for these qualities. Currently, we already have a lot of emptyswath, waiting for decompose worms.	monitoring and maintenance
		Number of swath (for composting)	50	24	48%	22	44%	46	92%		
	Compost 7 days	Number of swath	75	0	0%	60	80%	60	80%		Current activites of local team
			10	0	0%	1	10%	1	10%		
	Compost 30 days	Number of swath	10	0	0%	3	30%	3	30%		
			75	8	11%	55	73%	63	84%		
	Classic compost	Number of swath	200	19	10%	183	92%	202	101%		
			50	3	6%	30	60%	33	66%		
	Liquid compost	Number of production units	100	0	0%	65	65%	65	65%	This type of compost makes it possible both to provide fertilizers to plants, and also to serve as	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
										prevention or fight against various pests (biopesticides and repellent plants).	
1.4.3	Participate to improve cowsheds for quality manure and composting	Number of dairy farmers benefiting improved cowsheds for quality manure, for better of dairy cows and for composting	100	1	1%	0	0%	1	1%	Currently, 63 farmers' applications are in the process of being contracted for a small subsidy as part of the improvement of the cattle park.	
1.4.4	Provide seeds of forage (grasses and legumes and off season forage…) and food safety plants (orange flesh potatoes) based on experiences of FIFAMANOR	Number farmers provided seeds of forage and food safety plants	500	0	0%	285	57%	285	57%	821 peasant women and 403 peasants have already solicited the project successively in terms of orange-fleshed sweet potato vine and plant material of fodder plants. The delivery will be made from the beginning of the quarterly N ° 5. For information, as of July 5, 2019, 1,900kg of orange-fleshed sweet potato vine was made available to 284 farmers, including 29 leading farmers (263 female beneficiaries).	
1.4.5	Provide fry and other equipment for farmers for fish raising in the paddy field or in ponds (base on the experiences of APDRA and CIRAD)	Number of farmers provided equipment and fry for fish raising in the paddy field or in ponds	50	0	0%	0	0%	-	0%	Activity scheduled for the next quarter. A collaboration agreement is already being finalized between the project and the ATRDM / APDRA association consortium.	
Activity 1.5	**Collect data on CSA in some strategic area at National level in a view to update data on upscaling of CSA and best practices in the Country**										
1.5.1	Contratc with a firm to conduct National survey in some strategic agro-écological areas	Number of national survey (with national data in CSA)	1	0	0%	0	#DIV/0!	0	#DIV/0!		
1.5.2	Integrate data in MANAMORA database - and include database improvement by contratcing with CIRAD	Number of contract with CIRAD expertise to integrate data in MANAMORA database	1	0	0%	0	#DIV/0!	0	#DIV/0!		
1.5.3	Train regional directorates of MPAE (DRAEP) in the use of the data base MANAMORA	Number of DRAEP trained in the use of the data base MANAMORA		0	0%	0	0%	0	0%		
1.5.4	National database transfert to DRAEP (Ministry regional branch)	One database transfered		0	0%	0	0%	0	0%		
Activity 1.6	**Purchase principal mean for upscaling activity**										
1.6.1	**Purchase of Equipments**										

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
1.6.1.1	Purchase of motorcycles	Number of motorcycle	8	8	100%		0%	8	100%		
1.6.1.2	Purchase of bicycles	Number of bicycles	50	50	100%		0%	50	100%		
1.6.2	**Fuel and repairs**										
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	Number of Motorcycle use month	81	24	30%	48	59%	72	89%		
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	Number of car hiring days	30	12	40%	11	37%	23	77%	> 9 jours de suivi et vérification des cahiers d'enregistrement et fiche de stock semences > 8 jours de suivi des activités > 2 jours de suivi et évaluation > 4 jours de réunion de bilan année 2018-2019	
2.	**RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry**										
Activity 2.1	**Train nursymen in the technology of tree nurseries and in the choice of the appropriate tree species**										
2.1.1	Train Nurserymen/women	Number of Nursery men/women trained	20	27	135%	0	0%	27	135%		Identification and training of nurserymen on the uplands and other extension areas.
Activity 2.2	**Train lead farmers and farmers in CSA (CA, agroforestry and forestation, other good practices)**										
2.2.1	Train Lead farmers (by project Technicians and other stakeholders)	Number of Lead farmers	50	50	100%	50	100%	50	100%	Lead farmers benefited from training courses on market gardening, composting, valorisation of biopesticides and repellent plants and the technique of conducting a meeting. These training courses are the fruit of the collaboration with CEFFEL.	Poursuite de la formation et accompagnement des Paysans Leaders
2.2.2	Support cost of farmers training by Lead farmers (Farmer to farmer approach, based on man-day spent on training of their peer farmers)	Number of farmers trained	4 200	1729	41%	1 043	25%	2 772	66%	8 mois de prestation des PL	
	Training of adopters	Number of participants	1 000	936	94%	343	34%	1 279	128%	Subsequently, the project team (Technicians and Farmers Leaders) passed on their knowledge to the farmers in the project area. 427 women attended these training sessions. "	
Activity 2.3	**Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)**										
2.3.1	Make Diagnosis to select beneficiary schools	Number of diagnosis to select beneficiary schools	1	1	100%		0%	1	100%		Poursuite de l'accompagnement des CEG que ce soit sur la mise en place des jardins scolaire, ou les formations théoriques des élèves (6ème et 5ème)
		Number of selected schools	12	12	100%		0%	12	100%		
2.3.2	Organize Events (Commitment charte event, Tools delivery)	Number of Event	2	2	100%		0%	2	100%		

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
2.3.3	Organize Training for Ministry Branch (OEMC/DREMC/BEMC)	Number of session organized for training for Ministry Branch	1	1	100%		0%	1	100%		
2.3.4	Organize Training for teachers (3 sessions of training in Vakinankaratra)	Number of session organized for training for teachers	3	3	100%		0%	3	100%		
2.3.5	Training Tools (tarpauling, booklet, teacher guideline, langage-photo) - 6 new schools	Number of training tools pack	1	1	100%		0%	1	100%		
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	Number of communication tools pack	1	1	100%		0%	1	100%		
2.3.7	Produce Film for communication	Number of film for communication produced	-	0	#DIV/0!		#DIV/0!	-	#DIV/0!		
2.3.8	Produce Cartoon strips for school children	Number of cartoon strips produced for school children	1	0	0%		0%	-	0%		
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	Number of demostration plot	12	12	100%		0%	12	100%		
2.3.10	Accompany students in the implementation	Number of school children trained	2 000	1965	98%		0%	1 965	98%		
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	Number of competition organized of best school	-	0	0%		#DIV/0!	-	#DIV/0!		
2.3.12	Exchange visits between School	Number exchange visits between School	1	3	300%		0%	3	300%		
		Number of participants to the exchange visits between school	24	77	0%		0%	77	321%		
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	Number annual workshop days	-	0	#DIV/0!		#DIV/0!	-	#DIV/0!		
2.3.14	Car hiring for training, monitoring and other actions for secondary school	Number of car hiring days	20	5	25%	16	80%	21	105%	> 7 jours signature de la charte d'engagement > 1 jour de formation et visite CEFFEL de l'équipe MEN > 4 jours de remise des outils pédagogique > 6 joursde formation des enseignants > 3 jours de visite échange entre école	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
Acivity 2.4.	**Organise training sessions targeting development actors such as farmers organisations, NGO and services providers**										
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	Number of participants from development actor trained	1	0	0%	0	#DIV/0!	0	#DIV/0!		
2.4.2	Organize exchange visit in the training sites of GSDM	Number of participants to exchange visit in the training sites of GSDM	800	1306	163%		0%	1 306	163%		
2.4.3	Car hiring during training sessions (6 days per session)	Number of car hiring days	6	0	0%		0%	-	0%		
Activity 2.5	**Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry**										
2.5.1	Organize Information/sensitization of local stakeholders	Number of local stakeholders sensitized on Climate change by regional Meteorology officer	1	0	0%	0	0%	-	0%		
2.5.2	Organize Training workshop for local stakeholders	Number of training workshop session	1	0	0%	0	0%	-	0%		
		Number of participants trained on Climate Change and information bulletins	30	0	0%	0	0%	-	0%	Convention in the course of consultation with the Regional Service of Meteorology.	
2.5.3	Provide regional Meteorological information bulletins (quarterly)	Number of information bulletins provided	200	0	0%	0	0%	-	0%		
2.5.4	Provide perdiem for meteorological officer	Number of METEO officer homeday intervention	2	0	0%	0	0%	-	0%		
Activity 2.6	**Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEDD) or regional directorates**										
2.6.1	Organize field collaboration and exchange by MPAE + MEDD	Number of mission	1	0	0%	0	0%	-	0%		
2.6.2	Organize field collaboration and exchange by regional directorates (DRAEP + DREDD)	Number of concerned DRAEP	1	0	0%	1	100%	1	100%		
Activity 2.7	**Participate to CSA integration into public policies**										

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)	Number of worskshop on CSA in which the GSDM take part	1	1	100%	0	0%	1	100%		
2.7.2	Participate to workshops or meeting on climate change to advocate CSA (no cost)	Number of worskshopon climate change in which the GSDM take part	1	1	100%	0	0%	1	100%		
3.	RESULT 3 : Farmers organisations are supported and linked to various stakeholers in the Agriculture to support sustainability of the project results										
Acivity 3.1.	Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks										
3.1.1	Organize awareness raising on Climate Change targeting development actors as farmers organizations, NGO, local service provider	Number of session for awareness risins on climate change	1	0	0%	0	0%	-	0%	Activité prévue durant ce trimestre	
		Number of participants informed on Climate Change framework				0	0%	-	0%		
3.1.2	Car hiring during training sessions (2 days per session)	Number of car hiring days	2	0	0%	0	0%	-	0%		
Activity 3.2	Participate to sharing experiences at the regional level (COMESA and other regions) integrating political actors and development actors										
3.2.1	Organize exchange visits targeting policy makers, development actors (technicians) and farmers in COMESA and other regions	Number of exchange visits in COMESA and other regions		0	0%	0	0%	0	0%		
		Number of exchange visits participants		0	0%	0	0%	0	0%		
Acivity 3.3.	Support FOs to maintain continuous exchange with FDA and FDAR (state promoted development mechanisms in national level) in order to make a link between farmers and agricultural services										
3.3.1	Ensure Permanent exchange with FDA (state promoted development device in national level) in order to make a link with government development orientations	Number of concerned FDA	1	1	100%		0%	1	100%	The FDA will organize a referral meeting on July 16th. It is after this meeting of the members of the CROA (financing committee) that one will be able to know the various procedures to follow, and to accompany the FOs accordingly.	
3.3.2	Ensure Permanent exchange with FDAR (state promoted development device in regional level) in order to make a link with government development orientation	Number of concerned FDAR	1	2	200%	1	100%	3	300%		
		Number FOs benefiting finance from FDAR	30			0	0%	-	0%		

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
Acivity 3.4.	**Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider to make a link between the farmers and the agricultural services**										
3.4.1	Ensure Permanent utilization of CSA or Agricultural Service Center (state promoted development mechanism in District level) to make a link between farmers and agricultural service	Number of concerned CSA (Agricultural Service Center)	6	5	83%	5	83%	5	83%	It is proposed to organize exchange visits to the profits of the CSA, FOs, service providers for this month of July. Recall that the project does not intervene in Faratsiho District, which limits the number of Ag centers targets to 5.	
Acivity 3.5.	**Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions**										
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	Number of FOs on rice/fish ecosystem trained by APDRA	10	0	0%	0	0%	-	0%	A collaboration agreement is already being finalized between the project and the ATRDM / APDRA association consortium.	
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	Number of FOs trained on dairy cattle, improved cowsheds and forages by contracting with FIFAMANOR	20	0	0%	0	0%	-	0%	ToR to be improved in order to specify the actions of FIFAMANOR within the framework of the project.	
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	Number of FOs trained on best practices, bio-pesticides and fruit trees by contracting with CEFFEL	10	0	0%	0	0%	-	0%	A collaboration agreement has already been established between CEFFEL and GSDM. A theoretical training and installation of 2 demonstration sites (practical training) has already been carried out. The technicians and agronomists of the project benefited from the theoretical training. On the other hand, the setting up of the Demonstration Sites has seen the participation of the lead Farmers	
4.	**COMMUNICATION AND VISIBILITY**										
Acivity 4.1.	**Visibility and communication events organization**										
4.1.1	Organization of regional field days targeting government authorities and development actors	Number of regional field days	-	0	0%	0	0%	0	0%	Scheduled for the second year	
		Number of participants (Authorities, donors, local stakeholders, lead farmers, researchers, development actors, unions farmer and journalist)								Scheduled for the second year	
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	Number of streamer	2	4	200%		0%	4	200%		
		Number of roll up	2	1	50%		0%	1	50%		

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
4.1.3	Car hiring for all communication and visibility action	Number of car hiring days	20		0%		0%	-	0%		
Acivity 4.2.	**Publications and broadcasting**										
4.2.1	Broadcasting on national TV	Number of TV broadcasting	2	0	0%	1		1	50%		
4.2.2	Broadcasting on national Radio	Number of Radio broadcasting	10	5	50%	5	50%	10	100%		
4.2.3	Expenses related to attendance of journalists or reproters in events for publication on TV or newspapers	Hommeday of reporters (20 reporters x 5events)	40	3	8%	29	72%	32	80%		
		Number of newspapers'publication	8	5	63%	4	50%	9	113%		
		Number of publication type (online & social media)	2	2	100%		0%	2	100%		
		Number of TV events broadcasting	2		0%	1	50%	1	50%		
		Number of Radio events broadcasting	2	1	50%		0%	1	50%		
Acivity 4.3.	**Documentaries conception and edition**										
4.3.1	Edition documents and tools for techicians and farmers	Nomber of document and tools pack edited	1	0	0%	1	100%	1	100%	07 data sheets (agroforestry, CAvs conventional tillage comparison, vegetable crops, maize + legumes / rainfed rice, management of organic matter, nursery on stilts, contour planting) printed in A4 and laminated for each technician and farmers leaders.	
4.3.2	Editing of films for each project events	Number of films	5	0	0%		0%	-	0%		
4.3.3	Capitalization leaflets	Number of capitalization leaflets		0	0%		0%	0	0%	Scheduled for the last year	
5.	**PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)**										
Acivity 5.1.	**PMU officials recruited**										
5.1.1	National Technical Assistant (Project Leader)	Months	11	3,5	32%	6	55%	9,5	86%		
5.1.2	Assitant of project leader	Months	11	3	27%	6	55%	9,0	82%		
5.1.3	Technician Agroecology (Highland+Middle West) (6 technicians)	Months	66	21	32%	36	55%	57,0	86%		
Activity 5.2.	**GSDM Backstopping fully implemented by his key staff**										

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
5.2.1	Director (2 months per year)	Months	2	1	50%	1	50%	2	100%		
5.2.2	Agronomist (2 months per year)	Months	2	1	50%	1	50%	2	100%		
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Hasina)	Months	4	2	50%	2	50%	4	100%		
5.2.4	Agro economist (2 months per year)	Months	2	1	50%	1	50%	2	100%		
5.2.5	Communication Officer (2 months per year)	Months	2	1	50%	1	50%	2	100%		
5.2.6	Agronomist Vakinankaratra (2 months per year)	Months	2	1	50%	1	50%	2	100%		
Activity 5.3.	**Local missions**										
5.3.1	Per diem for GSDM national staff	Days	200	49	25%	111	56%	160	80%		
5.3.2	Per diem for local staff	Days	100	39	39%	7	7%	46	46%		
Activity 5.4.	**Mean and equipments implementation**										
5.4.3	**Offices renting and communication**							-			
5.4.3.1	Regional office renting	month	12	3	25%	8	67%	11	92%		
5.4.4	**Equipments**							-			
5.4.4.1	PC/laptop	Unit	4	4	100%		0%	4	100%		
5.4.4.2	Printers/scanner/photocopiers	Unit	2	2	100%		0%	2	100%		
5.4.4.3	Digital camera	Unit	2	2	100%		0%	2	100%		
5.4.4.4	Videoprojectors + screens	Unit	2	2	100%		0%	2	100%		
5.4.4.5	Hard disks	Unit	1	1	100%		0%	1	100%		
5.4.4.6	Other equipments (flat rate per technician)	Per technician	6	6	100%		0%	6	100%		
5.4.4.7	Communication/courier and other coordination expenses	Unit	1	0,5	50%	0,5	50%	1	100%		
5.4.5	**Spare parts for hard ware and other office machineries**										
5.4.5.1	Spares (hard ware, photocopiers etc.)	year	1	0,5	50%	0,5	50%	1	100%		
6.	**PPROJECT OVERSIGHT**										

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 1)	Previous achievements		Achievement of the period		Cumulative achievements		Remarks / Challenges	Plans for Next quarter
				Ach.	%	Ach.	%	Ach.	%		
Acivity 6.1.	**Steering committee**										
6.1.1	Steering committee establishment	Steering comittee established	1	0	0%		0%	-	0%		
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	Number of steering comittee meetings	1	0	0%		0%	-	0%		
Acivity 6.2.	**Monitoring and Evaluation of the project**										
6.2.1	Base line study through external expertise	One base line study	1	1	100%		0%	1	100%		
6.2.2	Financial auditing	Financial auditing (one per year by COMESA)	1		0%	1	100%	1	100%		
6.2.3	Bi-annual reportings	Semestrial report (1st : 1 per year)	2		0%	1	50%	1	50%		
6.2.4	Annual reportings	Annual report (including semestrial 2 report)			0%			-			
6.2.5	Mid-term evaluation through external expertise	One Mid-term evaluation	1		0%	1	100%	1	100%		
6.2.6	Final evaluation through external expertise	One Final evaluation			0%			-			
6.2.7	Car hiring for monitoring and evaluation	Number of car hiring days	30	0	0%		0%	-	0%		
Acivity 6.3.	**Project achievements capitalization**										
6.3.1	Project capitalization report	Number of capitalization report			0%		0%		0%		

Appendix 2: Detailed financial performance following the logical framework

Budget acc.	Planned Activities	Budget Year 1		Budget (MGA) year 1	TOTAL ENGAGED MGA	TOTAL ENGAGED €	TOTAL DISBURSED MGA	TOTAL DISBURSED €
		MGA	€					
1.	RESULT 1 : CSA and best practices are up scaled in two ecosystems of the VAKINANKARATRA region, covering the Highland and Middle West regions in Madagascar	439 450 000,00	115 644,74	439 450 000,00	326 291 689,83	86 343,40	325 716 518,78	86 191,19
Activity 1.1	Conduct awareness raising,advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries	29 000 000,00	7 631,58	29 000 000,00	38 444 775,20	10 173,27	38 444 775,20	10 173,27
1.1.1	Inception workshop	12 000 000,00	3 157,89	12 000 000,00	17 656 575,20	4 672,29	17 656 575,20	4 672,29
1.1.2	Exchanges visites inside and between communes	2 000 000,00	526,32	2 000 000,00	3 532 200,00	934,69	3 532 200,00	934,69
1.1.3	Car hiring and other expenses during field visits	15 000 000,00	3 947,37	15 000 000,00	17 256 000,00	4 566,29	17 256 000,00	4 566,29
Activity 1.2	Upscale Conservation Agriculture to support the growing of up land rice and other crops	22 500 000,00	5 921,05	22 500 000,00	15 917 298,00	4 212,04	15 917 298,00	4 212,04
1.2.1	Provides seeds of cover crops (mucuna, stylosanthes, cowpea…)	22 500 000,00	5 921,05	22 500 000,00	15 917 298,00	4 212,04	15 917 298,00	4 212,04
1.2.2	Support for Stylosanthes rollers	-		-	-		-	
Activity 1.3	Upscale agroforestry and forestation (equipement and seed support to nurseryman and adopting farmers)	136 500 000,00	35 921,05	136 500 000,00	121 941 817,00	32 268,28	121 976 825,03	32 277,54
1.3.1	Support tree nurserimen (potting bags, other materials…)	12 000 000,00	3 157,89	12 000 000,00	4 618 300,00	1 222,10	4 618 300,00	1 222,10
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus…)	100 000 000,00	26 315,79	100 000 000,00	101 450 000,00	26 845,73	101 485 008,03	26 854,99
1.3.3	Support adopting farmers in fruit plantlets	12 500 000,00	3 289,47	12 500 000,00	9 825 000,00	2 599,89	9 825 000,00	2 599,89
1.3.4	Provides seeds of hedgerow (Cajanus, Tephrosia…)	12 000 000,00	3 157,89	12 000 000,00	6 048 517,00	1 600,56	6 048 517,00	1 600,56
Activity 1.4	Promote other best practices (bio-pesticides and repellent plants, technology of composting, improved organic fertilizers, forages, species for food safety as orange flesh sweet potatoes…, regenerative income activity as vegetables…)	32 800 000,00	8 631,58	32 800 000,00	5 450 000,00	1 442,18	5 450 000,00	1 442,18
1.4.1	Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants (based on the experiences of BVPI, GSDM, CEFFEL)	6 000 000,00	1 578,95	6 000 000,00	1 350 000,00	357,24	1 350 000,00	357,24
1.4.2	Provide worms for composting	4 000 000,00	1 052,63	4 000 000,00	4 100 000,00	1 084,94	4 100 000,00	1 084,94
1.4.3	Participate to improve cowsheds for quality manure and composting	10 000 000,00	2 631,58	10 000 000,00	-		-	
1.4.4	Provide seeds of forage (grasses and legumes and off season forage…) and food safety plants (orange flesh potatoes) based on experiences of FIFAMANOR	9 800 000,00	2 578,95	9 800 000,00	-		-	
1.4.5	Provide fry and other equipment for farmers for fish raising in the paddy field or in ponds (based on the experiences of APDRA and CIRAD)	3 000 000,00	789,47	3 000 000,00	-		-	
Activity 1.5	Collect data on CSA in some strategic area at National level in a view to update data on upscaling of CSA and best practices in the Country	87 400 000,00	23 000,00	87 400 000,00	-	-	-	-
1.5.1	Contratc with a firm to conduct National survey in some strategic agro-écological areas	76 000 000,00	20 000,00	76 000 000,00			-	
1.5.2	Integrate data in MANAMORA database - and include database improvement by contratcing with CIRAD	11 400 000,00	3 000,00	11 400 000,00			-	
1.5.3	Train regional directorates of MPAE (DRAE) in the use of the data base MANAMORA	-		-			-	
1.5.4	National database transfert to DRAE (Ministry regional branch)	-		-			-	
Activity 1.6	Purchase principal mean for upscaling activity	131 250 000,00	34 539,47	131 250 000,00	144 537 799,63	38 247,63	143 927 620,55	38 086,17
1.6.1	Purchase of Equipments	95 000 000,00	25 000,00	95 000 000,00	105 326 754,56	27 871,59	105 326 754,56	27 871,59
1.6.1.1	Purchase of motorcycles	80 000 000,00	21 052,63	80 000 000,00	88 546 977,28	23 431,33	88 546 977,28	23 431,33
1.6.1.2	Purchase of bicycles	15 000 000,00	3 947,37	15 000 000,00	16 779 777,28	4 440,27	16 779 777,28	4 440,27
1.6.2	Fuel and repairs	36 250 000,00	9 539,47	36 250 000,00	39 211 045,07	10 376,04	38 600 865,99	10 214,57

Budget acc.	Planned Activities	Budget Year 1		Budget (MGA)	TOTAL ENGAGED	TOTAL	TOTAL DISBURSED	TOTAL
		MGA	€	year 1	MGA	ENGAGED €	MGA	DISBURSED €
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	20 250 000,00	5 328,95	20 250 000,00	34 652 545,07	9 169,77	34 042 365,99	9 008,30
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	16 000 000,00	4 210,53	16 000 000,00	4 558 500,00	1 206,27	4 558 500,00	1 206,27
2.	**RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry**	**152 769 176,00**	**40 202,41**	**152 769 176,00**	**57 525 964,14**	**15 222,54**	**57 530 023,66**	**15 223,61**
Activity 2.1	**Train nursymen in the technology of tree nurseries and in the choice of the appropriate tree species**	**3 500 000,00**	**921,05**	**3 500 000,00**	**-**	**-**	**-**	**-**
2.1.1	Train Nurserymen/women	3 500 000,00	921,05	3 500 000,00			-	
Activity 2.2	**Train lead farmers and farmers in CSA (CA, agroforestry and forestation, other good practices)**	**42 000 000,00**	**11 052,63**	**42 000 000,00**	**24 400 000,00**	**6 456,73**	**24 404 143,42**	**6 457,83**
2.2.1	Train Lead farmers (LF) by technicians and other stakeholders	-	-	-			-	
2.2.2	Support cost of farmers training by Lead farmers (Farmer to farmer approach, based on man-day spent on training of their peer farmers)	42 000 000,00	11 052,63	42 000 000,00	24 400 000,00	6 456,73	24 404 143,42	6 457,83
Activity 2.3	**Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)**	**80 140 176,00**	**21 089,52**	**80 140 176,00**	**33 125 964,14**	**8 765,80**	**33 125 880,24**	**8 765,78**
2.3.1	Make Diagnosis to select beneficiary schools	704 000,00	185,26	704 000,00	604 000,00	159,83	604 000,00	159,83
2.3.2	Organize Events (Commitment charte event, Tools delivery)	1 408 000,00	370,53	1 408 000,00	7 522 960,00	1 990,73	7 522 960,00	1 990,73
2.3.3	Organize Training for Ministry Branch (OEMC/DREMC/BEMC)	500 000,00	131,58	500 000,00	1 421 200,00	376,08	1 421 234,88	376,09
2.3.4	Organize Training for teachers (3 sessions of training in Vakinankaratra)	20 112 000,00	5 292,63	20 112 000,00	5 341 504,14	1 413,47	5 341 504,14	1 413,47
2.3.5	Training Tools (tarpaulin, booklet, teacher guideline, langage-photo) - 6 new schools	14 463 000,00	3 806,05	14 463 000,00	5 666 600,00	1 499,50	5 666 600,00	1 499,50
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	400 000,00	105,26	400 000,00	-		-	
2.3.7	Produce Film for communication	4 093 176,00	1 077,15	4 093 176,00	1 950 000,00	516,01	1 950 000,00	516,01
2.3.8	Produce Cartoon strips for school children	-		-	-		-	
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	7 460 000,00	1 963,16	7 460 000,00	3 754 200,00	993,44	3 754 200,00	993,44
2.3.10	Accompany students in the implementation	-	-	-	-		-	
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	-		-	-		-	
2.3.12	Exchange visits between School	9 000 000,00	2 368,42	9 000 000,00	2 115 500,00	559,80	2 115 500,00	559,80
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	10 000 000,00	2 631,58	10 000 000,00	-		-	
2.3.14	Car hiring for training, monitoring and other actions fo secondary school	12 000 000,00	3 157,89	12 000 000,00	4 750 000,00	1 256,95	4 749 881,22	1 256,91
Activity 2.4.	**Organise training sessions targeting development actors such as farmers organisations, NGO and services providers**	**7 400 000,00**	**1 947,37**	**7 400 000,00**	**-**	**-**	**-**	**-**
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	5 000 000,00	1 315,79	5 000 000,00			-	
2.4.2	Organize exchange visit in the training sites of GSDM	-		-			-	
2.4.3	Car hiring during training sessions (6 days per session)	2 400 000,00	631,58	2 400 000,00			-	
Activity 2.5	**Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry**	**9 729 000,00**	**2 560,26**	**9 729 000,00**	**-**	**-**	**-**	**-**
2.5.1	Organize Information/sensitization of local stakeholders	1 000 000,00	263,16	1 000 000,00			-	
2.5.2	Organize Training workshop for local stakeholders	5 697 000,00	1 499,21	5 697 000,00			-	
2.5.3	Provide regional Meteorological information bulletins (quarterly)	500 000,00	131,58	500 000,00			-	
2.5.4	Provide perdiem for meteorological officer	2 532 000,00	666,32	2 532 000,00			-	

Budget acc.	Planned Activities	Budget Year 1		Budget (MGA)	TOTAL ENGAGED	TOTAL	TOTAL DISBURSED	TOTAL
		MGA	€	year 1	MGA	ENGAGED €	MGA	DISBURSED €
Activity 2.6	**Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEEF) or regional directorates**	**10 000 000,00**	**2 631,58**	**10 000 000,00**	**-**	**-**	**-**	**-**
2.6.1	Organize field collaboration and exchange by MPAE + MEEF	3 000 000,00	789,47	3 000 000,00			-	
2.6.2	Organize field collaboration and exchange by regional directorates (DRAE + DREEF)	7 000 000,00	1 842,11	7 000 000,00			-	
Activity 2.7	**Participate to CSA integration into public policies**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)	-		-			-	
2.7.2	Participate to workshops or meeting on climate change to advocate CSA (no cost)	-		-			-	
3.	**RESULT 3 : Farmers organisations are supported and linked to various stakeholers in the Agriculture to support sustainability of the project results**	**41 077 117,00**	**10 809,77**	**41 077 117,00**	**8 303 168,00**	**2 197,19**	**5 088 668,00**	**1 346,56**
Activity 3.1.	**Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks**	**4 677 125,00**	**1 230,82**	**4 677 125,00**	**566 668,00**	**149,95**	**566 668,00**	**149,95**
3.1.1	Organize awareness raising on Climate Change targeting development actors as farmers organizations, NGO, local service provider	3 877 125,00	1 020,30	3 877 125,00	566 668,00	149,95	566 668,00	149,95
3.1.2	Car hiring during training sessions (2 days per session)	800 000,00	210,53	800 000,00			-	
Activity 3.2	**Sharing experience at the regional level (COMESA and other regions) integrating political actors and development actors**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
3.2.1	Organize exchange visits targeting policy makers, development actors (technicians) and farmers in COMESA and other regions	-		-			-	
		-		-				
Activity 3.3.	**Support FOs to maintain continuous exchange with FDA and FDAR (state promoted development mechanisms in national level) in order to make a link between farmers and agricultural services**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
3.3.1	Ensure Permanent exchange with FDA (state promoted development device in national level) in order to make a link with government development orientations	-		-			-	
3.3.2	Ensure Permanent exchange with FDAR (state promoted development device in regional level) in order to make a link with government development orientation	-		-			-	
Acivity 3.4.	**Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider (state promoted development mecanisms in national level) to make a link between the farmers and the agricultural services**	**1 900 000,00**	**500,00**	**1 900 000,00**	**-**	**-**	**-**	**-**
3.4.1	Ensure Permanent utilization of CSA or Agricultural Service Center (state promoted development mechanism in District level) to make a link between farmers and agricultural service	1 900 000,00	500,00	1 900 000,00			-	
Acivity 3.5.	**Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions**	**34 499 992,00**	**9 078,95**	**34 499 992,00**	**7 736 500,00**	**2 047,23**	**4 522 000,00**	**1 196,61**
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	6 500 000,00	1 710,53	6 500 000,00			-	
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	16 000 010,00	4 210,53	16 000 010,00			-	
3.5.3	Built capacity of FOs on market gardening and livestock by contracting with AVSF (targeting mainly women)						-	
3.5.4	Built capacity of FOs on FFS School approach as developped by PAPAM project by AGRISUD						-	
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	12 000 000,00	3 157,89	12 000 000,00	7 736 500,00	2 047,23	4 522 000,00	1 196,61
4.	**COMMUNICATION AND VISIBILITY**	**33 658 350,00**	**8 857,46**	**33 658 350,00**	**9 528 400,80**	**2 521,41**	**9 528 400,80**	**2 521,41**
Acivity 4.1.	**Visibility and communication events organization**	**12 854 550,00**	**3 382,78**	**12 854 550,00**	**4 668 060,00**	**1 235,26**	**4 668 060,00**	**1 235,26**

Budget acc.	Planned Activities	Budget Year 1		Budget (MGA)	TOTAL ENGAGED	TOTAL	TOTAL DISBURSED	TOTAL
		MGA	€	year 1	MGA	ENGAGED €	MGA	DISBURSED €
4.1.1	Organization of regional field days targeting government authorities and development actors	-		-	-		-	
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	213 637,50	56,22	213 637,50	4 668 060,00	1 235,26	4 668 060,00	1 235,26
		640 912,50	168,66	640 912,50	-		-	
4.1.3	Car hiring for all communication and visibility action	12 000 000,00	3 157,89	12 000 000,00			-	
Acivity 4.2.	**Publications and broadcasting**	**2 278 800,00**	**599,68**	**2 278 800,00**	**1 700 340,80**	**449,94**	**1 700 340,80**	**449,94**
4.2.1	Broadcasting on national TV	-		-	-		-	
4.2.2	Broadcasting on national Radio	759 600,00	199,89	759 600,00	-		-	
4.2.3	Expenses related to attendance of journalists or reproters in events for publication on TV or newspapers	1 519 200,00	399,79	1 519 200,00			-	
		-	-	-	1 700 340,80	449,94	1 700 340,80	449,94
		-	-	-				
		-	-	-				
Acivity 4.3.	**Documentaries conception and edition**	**18 525 000,00**	**4 875,00**	**18 525 000,00**	**3 160 000,00**	**836,20**	**3 160 000,00**	**836,20**
4.3.1	Edition documents and tools for techicians and farmers	2 700 000,00	710,53	2 700 000,00	2 380 000,00	629,80	2 380 000,00	629,80
4.3.2	Editing of films for each project events	15 825 000,00	4 164,47	15 825 000,00	780 000,00	206,40	780 000,00	206,40
4.3.3	Capitalization leaflets	-		-	-		-	
5.	**PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)**	**240 615 565,33**	**63 319,89**	**240 615 565,33**	**189 354 259,23**	**50 106,98**	**166 125 837,25**	**43 960,26**
Activity 5.1.	**PMU officials recruited**	**113 300 000,00**	**29 815,79**	**113 300 000,00**	**89 739 795,05**	**23 746,97**	**79 788 569,97**	**21 113,67**
5.1.1	project Leader	27 500 000,00	7 236,84	27 500 000,00	22 036 277,10	5 831,25	19 675 909,10	5 206,64
5.1.2	Assitant of project leader	19 800 000,00	5 210,53	19 800 000,00	17 569 900,45	4 649,35	15 516 839,95	4 106,07
5.1.3	Technicians (Highland+Middle West) (6 technicians)	66 000 000,00	17 368,42	66 000 000,00	50 133 617,50	13 266,37	44 595 820,92	11 800,96
Activity 5.2.	**GSDM Backstopping fully implemented by his key staff**	**54 770 720,00**	**14 413,35**	**54 770 720,00**	**43 991 926,00**	**11 641,16**	**31 994 128,00**	**8 466,29**
5.2.1	Director (2 months per year)	14 093 600,00	3 708,84	14 093 600,00	12 919 126,00	3 418,66	9 395 728,00	2 486,30
5.2.2	Agronomist (2 months per year)	6 779 520,00	1 784,08	6 779 520,00	6 214 560,00	1 644,50	4 519 680,00	1 196,00
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Célestin)	13 559 040,00	3 568,17	13 559 040,00	6 214 560,00	1 644,50	4 519 680,00	1 196,00
5.2.4	Agro economist (2 months per year)	6 779 520,00	1 784,08	6 779 520,00	6 214 560,00	1 644,50	4 519 680,00	1 196,00
5.2.5	Communication Officer (2 months per year)	6 779 520,00	1 784,08	6 779 520,00	6 214 560,00	1 644,50	4 519 680,00	1 196,00
5.2.6	Agronomist Vakinankaratra (2 months per year)	6 779 520,00	1 784,08	6 779 520,00	6 214 560,00	1 644,50	4 519 680,00	1 196,00
Activity 5.3.	**Local missions**	**26 250 000,00**	**6 907,89**	**26 250 000,00**	**11 998 874,93**	**3 175,15**	**11 998 874,93**	**3 175,15**
5.3.1	Per diem for GSDM national staff	18 750 000,00	4 934,21	18 750 000,00	9 114 963,35	2 412,00	9 114 963,35	2 412,00
5.3.2	Per diem for local staff	7 500 000,00	1 973,68	7 500 000,00	2 883 911,58	763,14	2 883 911,58	763,14
Activity 5.4.	**Mean and equipments implementation**	**46 294 845,33**	**12 182,85**	**46 294 845,33**	**43 623 663,25**	**11 543,71**	**42 344 264,35**	**11 205,15**
5.4.3	**Offices renting and communication**	4 200 000,00	**1 105,26**	4 200 000,00	**3 000 000,00**	**793,86**	**3 000 000,00**	**793,86**
5.4.3.1	Regional office renting	4 200 000,00	1 105,26	4 200 000,00	3 000 000,00	793,86	3 000 000,00	793,86
5.4.4	**Offices renting and communication**	40 734 845,33	10 719,70	40 734 845,33	**40 313 663,25**	**10 667,81**	**39 034 252,35**	**10 329,25**
5.4.4.1	PC/laptop	16 000 000,00	**4 210,53**	16 000 000,00	16 186 461,44	4 283,27	16 186 461,44	4 283,27
5.4.4.2	printers/scanner/photocopiers	2 100 000,00	552,63	2 100 000,00	2 418 750,00	640,05	2 418 738,00	640,05

Budget acc.	Planned Activities	Budget Year 1		Budget (MGA)	TOTAL ENGAGED	TOTAL	TOTAL DISBURSED	TOTAL
		MGA	€	year 1	MGA	ENGAGED €	MGA	DISBURSED €
5.4.4.3	Digital camera	3 600 000,00	947,37	3 600 000,00	3 409 800,00	902,30	3 410 110,92	902,38
5.4.4.4	videoprojectors + screens	8 000 000,00	2 105,26	8 000 000,00	5 626 000,00	1 488,75	5 625 689,08	1 488,67
5.4.4.5	hard disks	370 000,00	97,37	370 000,00	303 334,00	80,27	303 334,00	80,27
5.4.4.6	Other equipments (flat rate per technician)	2 100 000,00	552,63	2 100 000,00	2 066 200,00	546,76	726 200,00	192,17
5.4.4.7	Communication/courier and other coordination expenses	8 564 845,33	2 253,91	8 564 845,33	10 303 117,81	2 726,41	10 363 718,91	2 742,45
5.4.5	**Spare parts for hard ware and other office machineries**	**1 360 000,00**	**357,89**	**1 360 000,00**	**310 000,00**	**82,03**	**310 012,00**	**82,04**
5.4.5.1	Spares (hard ware, photocopiers etc.)	1 360 000,00	357,89	1 360 000,00	310 000,00	82,03	310 012,00	82,04
6.	**PROJECT OVERSIGHT**	**60 993 920,00**	**16 051,03**	**60 993 920,00**	**45 810 714,00**	**12 122,44**	**7 814 714,00**	**2 067,93**
Activity 6.1.	**Steering committee**	**993 920,00**	**261,56**	**993 920,00**	**-**	**-**	**-**	**-**
6.1.1	Steering committee establishment	-		-			-	
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	993 920,00	261,56	993 920,00			-	
Activity 6.2.	**Monitoring and Evaluation of the project**	**60 000 000,00**	**15 789,47**	**60 000 000,00**	**45 810 714,00**	**12 122,44**	**7 814 714,00**	**2 067,93**
6.2.1	Base line study through external expertise	60 000 000,00	15 789,47	60 000 000,00	45 810 714,00	12 122,44	7 814 714,00	2 067,93
6.2.2	Financial auditing	-		-			-	
6.2.3	Bi-annual reportings	-		-			-	
6.2.4	Annual reportings	-		-			-	
6.2.5	Mid-term evaluation through external expertise	-		-			-	
6.2.6	Final evaluation through external expertise	-		-			-	
6.2.7	Car hiring for monitoring and evaluation	12 093 176,00	3 182,41	12 093 176,00		-		-
Activity 6.3.	**Project achievements capitalization**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
6.3.1	Project capitalization report	-		-			-	
July 2018 to June 2019				**968 564 128,33**	**636 814 196,00**	**168 513,94**	**571 804 162,49**	**151 310,97**
7.2.1	Adminstrative charges	67 799 489,54	17 841,97	67 799 489,54	46 730 503,23	12 365,84	29 539 826,19	7 816,84
YEAR 1 TOTAL BUDGET (EUROS)				**1 036 363 617,88**	**683 544 699,23**	**180 879,78**	**601 343 988,68**	**159 127,81**

Appendix 3: Map of project area

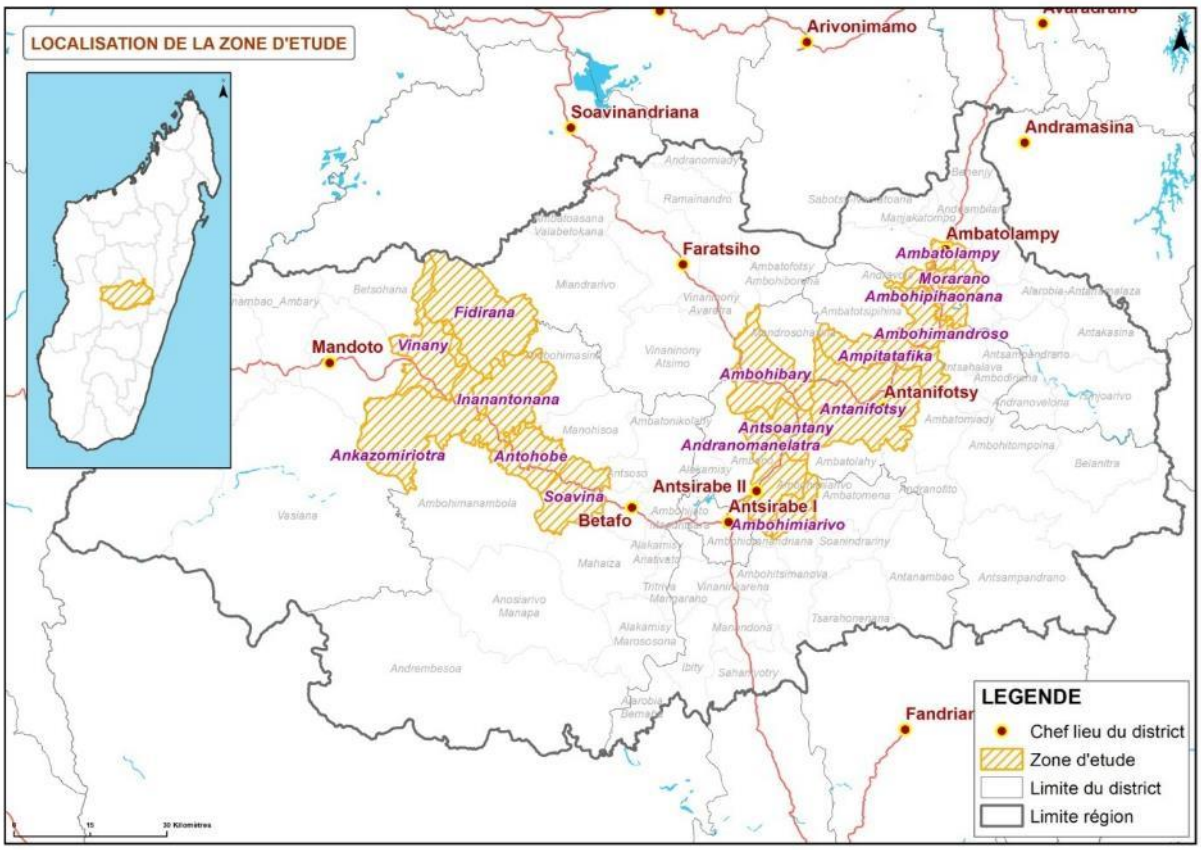

Figure 1: Map of the project areas

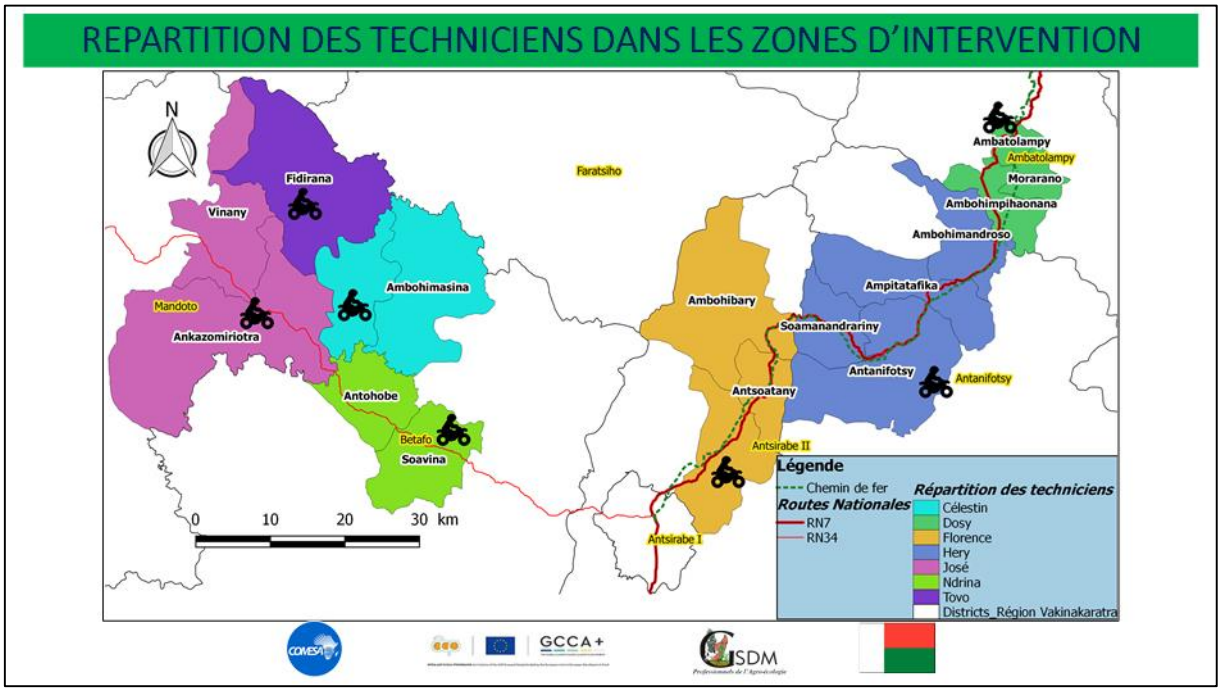

Figure 2: Distribution of technicians in the project areas

Appendix 4: List of Lead farmers

N°	NOM et Prénoms PL	Homme/ Femme	Date et lieu de naissance	CIN	Fokontany	Commune	Zone d'intervention	N° Convention
1	ANDRIANARY Fikirizantsoa Mahefarilanto	Femme	22/05/93 à Ambohimasina	109 272 007 073 du 03/08/11 à Betafo	Ambohimasina	Ambohimasina	Ambohimasina, Antsomangana	04PL/2018/CONV/GSDM
2	RAMINOARIRINDRA Daniella	Femme	17/04/1981 à Ambohijatovo, Antsirabe	109 272 003 826 du 29/10/99 à Betafo	Amboanjobe	Ambohimasina	Amboanjobe, Soanierana	37PL/2018/CONV/GSDM
3	TOJONIRINA Rindrasoa Charlotte	Femme	10/01/90 du 09/10/2013 à Betafo	109 292 005 449 du 09/10/13 à Betafo	Belanitra	Ambohimasina	Belanitra, Ambohibary	01PL/2018/CONV/GSDM
4	RAKOTONDRAFARA	Homme	12/06/1978 à Tsarafara Betafo	109 291 001 875 du 10/11/97 à Betafo	Antanety Sud	Inanantonana	Antanety Sud	02PL/2018/CONV/GSDM
5	RAKOTONIRINA Heritiana	Homme	12/02/1994 à Inanantonana	109 291 004 975 du 12/04/12 à Betafo	Belanitra	Inanantonana	Bemasoandro	29PL/2018/CONV/GSDM
6	RAZAFINDRAKOTO Jean Michel	Homme	04/05/1987 à Inanantonana	109 291 003 568 du 19/12/05 à Betafo	Inanantonana	Inanantonana	Inanantonana	05PL/2018/CONV/GSDM
7	RAKOTOMALALA Herisoa	Homme	05/10/1960 à Betafo	109 321 012 196 du 04/02/80 à Betafo	Inanantonana	Inanantonana	Inanantonana	06PL/2018/CONV/GSDM
8	RAVOLATIANA Rivo Nicole	Femme	01/03/96 à Betafo	109 312 013 182 du 03/03/14 à Mandoto	Ambatomainty	Inanantonana	Ambatomainty, Androfia, Amparihimboangy	03PL/2018/CONV/GSDM
9	RANDRIARIMANANA Jean Léon	Homme	16 aout 1971 à Ambatolampy	110 011 002 005 du 19/04/90 à Ambatolampy	Ambanimaso II	Ambatolampy	Ambanimaso II, Ankidondona II, Ambatolampy Bas(CR Morarano)	16PL/2018/CONV/GSDM
10	RANDRIAMAHEFA Falimanana	Homme	Vers 1961 à Ambohidrazana/ Ambatomiady	114 361 008 215 Du 08 Aout 1982 à Ambatomiady	Ihazolava	Ambohimandroso	Ihazolava Sud (CR Ambohimandroso), Ambohipihaonana, Mahazoarivo, Lovainjafy	08PL/2018/CONV/GSDM
11	RAZAFINARIVO Fenosoa François	Homme	20 Octobre 1994 à Ambodibonga	110 051 008 130 Du 24 Octobre 2012 à Ambatolampy	Ambondrona	Ambohimpihaonana	Ambondrona, Soavina, Marohisana, Mandrosohasiona, Andafiatsimo (CR Ambatolampy)	09PL/2018/CONV/GSDM
12	HERIMANITRA Marie Rosette	Femme	19 Mars 1988 à Ampangabe	110 052 005 625 Du 10 Novembre 2006 à Ambatolampy	Sahamadio,	Ambohimpihaonana	Sahamadio, Andakana	11PL/2018/CONV/GSDM
13	RANDRIAMAMPIADANA Pascal	Homme	14/06/1961 à Andriamigodana	110 031 000 067 du 30/01/1987 à Ambatolampy	Andriamigodana	Morarano	Andriamigodana, Ankorompotsy, Morarano	
14	RANDRIAMITANTSOA Heritiana Victor	Homme	09/10/1989 à Fierenana	110 031 003 420 du 05/09/2008 à Ambatolampy	Fierenana	Morarano	Fierenana, Andohaparihy, Antsiravana (Andranovelona)	12PL/2018/CONV/GSDM
15	RAJAOSAFARA Lantosoa Nirina Arlette	Femme	14/08/75 à Ambohibary	118 332 011 879 du 02/12/97 à Ambohibary	Sambaina Gara	Ambohibary	Sahabe, Ankeniheny III, Fanomezantsoa, Sambaina, Ambohimarina, Ambatomainty	
16	RAKOTOZAFINDRASON Edmond	Homme	19/09/1980 à Ambohibary	118 331 016 467 du 10/06/1999 à Ambohibary	Morarano III	Ambohibary	Faravohitra, Morarano, Ambohimandroso Morondrano-Trafonomby	19PL/2018/CONV/GSDM
17	RAIVOARISOA Marie Monique	Femme	20/10/1970 à Andranomanelatra	118 112 001 651 du 11/06/93	Tsaramandroso gara	Andranomanelatra	Fandrindrano, Manovasoa, Anosimboahangy, Fiadanana	

N°	NOM et Prénoms PL	Homme/ Femme	Date et lieu de naissance	CIN	Fokontany	Commune	Zone d'intervention	N° Convention
18	RAKOTOARISOA Jean Marie	Homme	26/06/1961 à Andranomanelatra	108 301 010 447 du 11/02/80 à Antsirabe	Andranomanelatra	Andranomanelatra	Morarano, Andranomanelatra Miarinarivo-Bemololo	27PL/2018/CONV/GSDM
19	RAIVONJANAHARY Perline Yvette	Femme	14/07/73 à Andranomanelatra	118 112 001 554 du 23/01/93 à Antsirabe	Tsarazazamandimby	Andranomanelatra	Tsaramandroso-Gara, Antanetibe-Toavola Tsarazazamandimby, Ambohimandroso Soamahavoky, Amberobe	13PL/2018/CONV/GSDM
20	RAZANAMASY Yvonne	Femme	17/05/84 à Ambohibary	118 232 003 381 du 29/08/03	Antsapanimahazo	Antsoatany	Mandritsarakely, Antsapanimahazo, Ambalavao	
21	RANDRIANARISOA Étienne	Homme	11/05/1990 à Antsoatany	118 231 004 519 du 04/08/2008 à Antsirabe II, duplicata du 22/08/2017 à Antsirabe II	Antsoatany	Antsoatany	Antsoatany et Ambohimena	25PL/2018/CONV/GSDM
22	VONJISOA Lalaina Eric Arthur (Lalaina)	Homme	20/08/1977 à Andohariana, Antanifotsy	114 011 011 336 du 14/05/97 à Ambohimandroso	Ambohimandroso	Ambohimandroso	Maromoka, Mahaketraka, Ambohimandroso A, Ambohimandroso B, Maromoka-Fonenantsoa, Ambatomainty	23PL/2018/CONV/GSDM
23	RAFIDIMANANTSOA Jaona (Rafidy)	Homme	28/03/1979 à Soavina	114 101 003 780 du 09/08/1997 à Ambohimandroso	Antsampandrano	Ambohimandroso	Antsampandrano, Ankazomenavahatra Ambatofotsy Antanety Est Kelilaina Bas	26PL/2018/CONV/GSDM
24	RAZAFINDRAVONY Laingo Maminirina	Femme	19/08/1988 à Ampitatafika	114 052 011 022 du 15/11/2006	Masoandro	Ampitatafika	Masoandro, Amboniandrefana, Ambonivary, Antoby, Morarano	
25	TOJOARINAIVO Ambininjanahary Eric (Tojo)	Homme	10/09/1985 à Antsirabe	108 091 007 279 du 19/01/05 à Antsirabe	Ampitatafika	Ampitatafika	Mananetivohitra Ampitatafika Amboalefoka Tsimahabeharona Ambohitsarabe	24PL/2018/CONV/GSDM
26	RAFENOMAMPIONONA Falimihoby Bien Aimé	Homme	26/09/1983 à Antanifotsy	114 011 019 050 du 14/11/2001 à Antanifotsy	Andriantsilahy	Antanifotsy	Andriantsilahy Morarano Ambatobe Sahavato Ambony Sahavato centre Antanambao Angavo Est	20PL/2018/CONV/GSDM
27	RAHARIMALALA Berthe Clémence (Mme Berthe)	Femme	04/071968 à Ambohimandroso	114 112 000 147 du 21/05/86 à Ampitatafika	Antsahamaina	Antanifotsy	AntsahamainaAntanifotsyAntanety NordMahalavolonaAntobiniaroAmbodiriana (Amparihibe)	17PL/2018/CONV/GSDM
28	RAZAFIARIJAONA Daniel	Homme	27/11/1970 à Antsirabe	114 011 002 913 du 09/02/90 à Antanifotsy	Antemotra	Antanifotsy	Antemotra, Bemasoandro, Amboniandrefana, Tokotanitsara	21PL/2018/CONV/GSDM
29	RAMANANJATOVO Nirina Nambinina	Homme	23/12/1988 à Mahaiza, Betafo	114 011 025 500 du 18/04/07 à Soamanandrariny	Ambilona I	Soamanandrainy	Ambilona I, Antanety I, Soamanandrariny, Mananetivohitra, Ambatoboka et Saonjorano (CR Antanifotsy)	18PL/2018/CONV/GSDM
30	RAZAFINDRAVONY Lala Christine	Femme	09/05/60 à Miaramasoandro	109 462 010 764 du 02/03/82 à Betafo	Ankazomiriotra I	Ankazomiriotra	Andranovory Marogoaika Tatamolava	34PL/2018/CONV/GSDM

N°	NOM et Prénoms PL	Homme/ Femme	Date et lieu de naissance	CIN	Fokontany	Commune	Zone d'intervention	N° Convention
31	RAMAMONJIVOKATSOA Fortunat	Homme	19/06/69 à Manandona	108 211 001 403 du 26/07/94 à Antsirabe	Belanitra	Ankazomiriotra	Belanitra, Antanetikely, Morarano Ankerana Moraranokely	31PL/2018/CONV/GSDM
32	RAHARIMANANA Marie Lucienne	Femme	18/10/73 à Ankazomiriotra	109 312 001 405 du 25/09/92 à Betafo	Ankazomiriotra II	Ankazomiriotra	Andratsaimahamasina, Ampanarivomasina, Ambohipeno	35PL/2018/CONV/GSDM
33	IARIMALALA Marie Véronique	Femme	15/03/94 à Ankazomiriotra	108 012 022 343 du 18/02/13 à Antsirabe	Ankazomiriotra II	Ankazomiriotra	Ankazomiriotra II, Ankilahila, Vohitrarivo II	32PL/2018/CONV/GSDM
34	ANDRIANDRAINA Todisoa Omega	Homme	13/10/1987 à Antsimotsena Ankazomiriotra	109 311 009 516 du 16/05/2006 à Betafo	Ankazomiriotra I	Ankazomiriotra	Ankazomiriotra 1, Ampanarivomasina, Vohitrarivo II	
35	RAKOTOMALALA Claude Jean Denis	Homme	28/09/95 à Mazoto	109 331 003 916 du 09/05/13 à Betafo	Mazoto	Vinany	Mazoto, Tsimandiarano Ouest, Ambatolahy Est	33PL/2018/CONV/GSDM
36	RAZANAMARO Milantosoa Félistine	Femme	12/06/94 à Ankazomiriotra	109 332 003 459 du 18/01/13 à Mandoto	Ivory	Vinany	Ivory, Andromba, Ambatofotsikely	39PL/2018/CONV/GSDM
37	RAKOTOARIMANANA Edmond	Homme	14/06/71 à Ankazomiriotra	109 331 000 479 du 17/06/91 à Betafo	Vinany	Vinany	Vinany Nord, Ampasatokana, Antanambe	36PL/2018/CONV/GSDM
38	RANDRIAMIHAJA Jean Clément	Homme	29/06/85 à Ankamory	109 331 001 266 du 24/08/04 à Betafo	Ankamory	Vinany	Ankamory, Vinany Nord, Ampasatokana	38PL/2018/CONV/GSDM
39	RAKOTONIAINA Solomon	Homme	26/05/88 à Matieloana	109 191 001 792 du 03/05/2007 à Betafo	Matieloana	Antohobe	Matieloana	40PL/2018/CONV/GSDM
40	RANOAVOMANANA Morasata	Homme	Vers 1964 à Soavina	109 381 005 382 du 30/06/84 à Betafo	Korosovola	Antohobe	Korosovola, Masoandronarivo	44PL/2018/CONV/GSDM
41	RAKOTOMALALA Bernardin Emile	Homme	22/05/87 à Ambohimanambola	109 191 001 529 du 21/06/05 à Betafo	Antohobe	Antohobe	Antohobe, Soavina 2, Ambohimatsinjo	07PL/2018/CONV/GSDM
42	RANDRIAMANANTENA Jules	Homme	31/07/60 à Soavina	109 381 004 928 du 30/10/80 à Betafo	Antanety	Soavina	Antanety Ambohitsara	41PL/2018/CONV/GSDM
43	RAKOTO Philippe	Homme	Vers 1947 à Vinaninoro, Ambositra	203 301 004 819 du 24/04/68 à Ambositra	Soavina	Soavina	Soavina Ambohitrambo	43PL/2018/CONV/GSDM
44	ANDRIATSIFERANA Olivier	Homme	14/02/1974 à Soavina	109 191 000 721 du 15/07/1992 à Betafo	Soavina 2	Antohobe	-Soavina 2 -Ambohimahatsinjo	
45	RAKOTOARISOA Georges Albert	Homme	Vers 1961 à Ambohimasina	109 461 010 648 du 25/07/81 à Betafo, duplicata du 11/11/11 à Betafo	Fidirana	Fidirana	Fidirana	47PL/2018/CONV/GSDM
46	ANDRIANIRINA William	Homme	Vers 1972 à Soamanantantely	109 351 001 043 du 07/07/93 à Betafo, duplicata du 25/11/93 à Betafo	Soamananety	Fidirana	Soamananety Antampondravola Ambohimanana	49PL/2018/CONV/GSDM
47	RAKOTOMANANTSOA Modeste	Homme	27/03/76 à Fidirana	109 351 001 980 du 21/08/97 à Betafo, duplicata du 23/05/05 à Betafo	Ambohibolakely	Fidirana	Ambohibolakely	46PL/2018/CONV/GSDM
48	RAZAFIMAHAFALY Anthime Dominique	Homme	05/02/1957 à Soarotohizana	203 361 011 434 du 22/10/75 à Imerina Imady Ambositra	Antampondravola	Fidirana	Antampondravola, Ambohimasikely	
49	RAVELOMANANJAFY Hanta Jeannot	Homme	09/09/75 à Fidirana	109 351 001 123 du 06/05/94 à Betafo, duplicata du 02/07/14 à Betafo	Mamoriomby	Fidirana	Mamoriomby	45PL/2018/CONV/GSDM

N°	NOM et Prénoms PL	Homme/ Femme	Date et lieu de naissance	CIN	Fokontany	Commune	Zone d'intervention	N° Convention
50	RATOLOJANAHARY Simon André	Homme	21/07/80 à Fidirana	109 011 007 257 du 28/05/99 à Betafo	Morafeno	Fidirana	Morafeno Ambalafeno	50PL/2018/CONV/GSDM

Appendix 5: List of Nurserymen

Nurserymen/women name	Gender	Location	Commune	Number of trees plantlets
RASOAMALALA Georgette	Woman	Ankazomiriotra II	Ankazomiriotra	20 000
RAVONIARISOA Julienne	Woman	Ankazomiriotra II	Ankazomiriotra	20 000
RAMARIALIMANANA Voahirana Nirina	Woman	Ankazomiriotra II	Ankazomiriotra	20 000
RAKOTONDRASOA Fanja Harinaivo	Man	Ankazomiriotra II	Ankazomiriotra	20 000
RAKOTONDRINA Louis Pascal	Man	Ankazomiriotra I	Ankazomiriotra	20 000
RANDRIANASOLO Faralahy	Man	Ankazomiriotra I	Ankazomiriotra	25 000
RAVOMANANA Richard	Man	Belanitra	Ankazomiriotra	15 000
LALAINA Farasoa Isabelle	Woman	Ankazomiriotra I	Ankazomiriotra	10 000
Sub-total Ankazomiriotra Commune				*150 000*
RAKOTONDRANAIVO Jean Baptiste	Man	Mazoto	Vinany	20 000
RAKOTONANAHARY Edmond	Man	Mazoto	Vinany	20 000
KOPERATIVA Fanilo	Man	Mazoto	Vinany	25 000
RABENANDRASANA Joseph	Man	Ankamory	Vinany	20 000
RANDRIAMIANDRISOA Tokiniaina Ferdinand	Man	Andromba	Vinany	20 000
RAKOTONIRINA Jean Noël	Man	Ambatolahy	Vinany	10 000
RAKOTONDRANAIVO Jean Louis Donné	Man	Vinany	Vinany	10 000
Sub-total Vinany Commune				*125 000*
RAFAMATANANTSOA Martin	Man	Inanantonana	Inanantonana	25 000
RAKOTOMALALA Herisoa	Man	Inanantonana	Inanantonana	25 000
RAZAFIMAHATRATRA Armand	Man	Inanantonana	Inanantonana	20 000
RASOLOMANANA Justin	Man	Ambatomainty	Inanantonana	25 000
RAKOTONJANAHARY Andriamiandrisoa Guy	Man	Antanety Sud	Inanantonana	25 000
Sub-total Inanantonana Commune				*120 000*
RAHANTARIMANANA Jacky Daniel	Man	Mamoriomby	Fidirana	20 000
RAVELOMANANJAFY Hanta Jeannot	Man	Mamoriomby	Fidirana	20 000
RAKOTOARIMANANA Daniel	Man	Mamoriomby	Fidirana	20 000
RAKOTOMANANTSOA Modeste	Man	Ambohibolakely	Fidirana	10 000
RAMANANDRAIBE Manampisoa Charlie	Woman	Fidirana	Fidirana	20 000
Sub-total Fidirana Commune				*90 000*
RANDRIAMANANTENA Jean Pierre	Man	Soavina	Soavina	10 000
Sub-total Soavina Commune				*10 000*
NARINDRANJANAHARY Fitolahy Edmond	Woman	Antohobe	Antohobe	10 000
Sub-total Antohobe Commune				*10 000*
TOTAL				505 000