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**MANITATRA 2 PROJECT**  
**FINAL VERSION**

**SUBMITTED TO**

**COMMON MARKET FOR EASTERN AND SOUTHERN  
AFRICA  
BY**



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**Lot VA 26 Y Ambatoroka, Route d'Ambohipo,  
ANTANANARIVO (101)  
MADAGASCAR**

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## Acronyms and Abbreviations

<b>ACP</b>	Africa, Caribbean and Pacific countries
<b>AF</b>	Agroforestry
<b>AFD</b>	Agence Française de Développement (French Agency For Development)
<b>AFRICA Rice</b>	Africa Rice Center
<b>AGRISUD</b>	French NGO
<b>APDRA</b>	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.
<b>asl</b>	above sea level
<b>AU</b>	African Union
<b>AVSF</b>	Agronomes et Vétérinaires sans Frontières (Agronomists and Veterinarians without borders)
<b>ATDRM</b>	Association des Techniciens pour le Développement Rural à Madagascar (Association of technicians (past technicians of APDRA) for rural development involved in fish farming
<b>BEMC</b>	Bureau de l'Education Environnemental et du Civisme (Environmental Education and Citizenship Office)
<b>BNCC</b>	Bureau National du Changement Climatique
<b>BVPI</b>	Bassin Versant Périmètre Irrigué
<b>CA</b>	Conservation Agriculture
<b>CASEF</b>	Appui aux chaînes de valeur et à la sécurisation foncière (Support to value chains and land security)
<b>CC</b>	Climate Change
<b>CD</b>	Compact Disc
<b>CEFFEL</b>	Conseil Expérimentation Formation en Fruit et Légume (Experiment Council Training in Fruit and Vegetables) (association)
<b>CEG</b>	Collège d'Enseignement Général (General Education College, secondary school in the public system : intermediate level before High School)
<b>CIRAD</b>	Centre de Recherche Agronomique pour le Développement (Center for Agronomic Research for Development)
<b>CISCO</b>	Circonscription Scolaire
<b>CNEAGR</b>	Centre National de l'Eau de l'Assainissement et du Génie Rural
<b>COMESA</b>	Common Market for East and Southern Africa
<b>CDR</b>	Conseiller en Développement Rural (technician at the level of the communes)
<b>CR</b>	Commune Rurale
<b>CSA</b>	Climate Smart Agriculture
<b>CSA</b>	Centre de Service Agricole
<b>DREMC</b>	Direction Régionale de l'Environnement et du Civisme (Regional Directorate of Environment and Citizenship)
<b>DGE</b>	Directorate General of Environment
<b>DGM</b>	Directorate General of Meteorology
<b>DRAE</b>	Regional Directorate for Agriculture and Livestock
<b>DIRTTM</b>	Direction Interregionale du Transport, du Tourisme et de la Météorologie (Interregional Direction of Transport, tourism and Meteorology)
<b>DREEF</b>	Regional Directorate for Ecology, Environment and Forestry
<b>EBa</b>	Ecosystem based Adaptation
<b>ECOAfrica</b>	Ecological intensification pathways for the future of crop-livestock integration in African agriculture project
<b>EU</b>	European Union
<b>FAO</b>	Food and Agricultural Organization
<b>FAW</b>	Fall Army Worm (chenilles légionnaires)
<b>FDA</b>	Fond de Développement Agricole (Agricultural Development Fund)
<b>FDAR</b>	Fond de Développement Agricole Régional (Regional Agricultural Development Fund)

<b>FFS</b>	Farmers Field School
<b>FIA</b>	Foire Internationale de l'Agriculture (International Agriculture Fair)
<b>FIERMADA</b>	Foire internationale de l'économie rurale de Madagascar
<b>FIFAMANOR</b>	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)
<b>FIFATA</b>	Association pour le Développement des Paysans (Association for the Development of Farmers)
<b>FK</b>	Fokontany
<b>FOFIFA</b>	FOFIFA - CENRADERU - Centre national de Recherche appliquée au développement rural (FOFIFA - CENRADERU - National Center for Research in Rural Development )
<b>FO</b>	Farmers organization
<b>GCCA +</b>	Global Climate Change Alliance plus
<b>GSDM</b>	Formerly "Groupement Semis Direct of Madagascar", changed to " <b>GSDM</b> , <i>Professionnels de l'Agro-écologie</i> " (without development of the acronym GSDM)
<b>IRD</b>	French Institute of Research and Development
<b>LF</b>	Lead Farmer
<b>LRI</b>	Laboratoire de Radio Isotope (Radio Isotope Laboratory)
<b>MAEP</b>	Ministère de l'Agriculture de l'Elevage et de la Pêche (Ministry of Agriculture, Livestock and Fisheries)
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MEDD</b>	Ministère de l'Environnement et du Développement Durable (Ministry of Environment and sustainable Development)
<b>MEEF</b>	Ministère de l'Ecologie, de l'Environnement et des Forêts (Ministry of Ecology, Environment and Forests)
<b>MEN</b>	Ministère de l'Education Nationale (Ministry of Education)
<b>MENETP</b>	Ministère de l'Education Nationale, de l'Enseignement Technique et Professionnel
<b>MS</b>	Member State
<b>NAP</b>	National Adaptation Plan
<b>NGO</b>	Non-Government Organization
<b>OEMC</b>	Office de l'Education de Masse et du Civisme (Office of Environmental Education and Citizenship)
<b>PAPAM</b>	Projet d'Appui à la Productivité Agricole à Madagascar (Support Project for Agricultural Productivity in Madagascar)
<b>PAPRIZ</b>	JICA project on Irrigated Rice in Madagascar
<b>PLAE</b>	Projet de lutte anti-érosive: GIZ Erosion project funded by KFW
<b>SPAD</b>	Système de Production d'Altitude Durable (Sustainable Production system in high altitude)
<b>RN7</b>	Route Nationale N°7 (National Road 7)
<b>SRM</b>	Service Régional de la Météorologie (regional service of meteorology)
<b>RN34</b>	Route Nationale N°34 (National Road 34°)
<b>RNM</b>	Radio Nationale Malagasy (National Malagasy Radio, public radio)
<b>RTA</b>	Radiotélévision Analamanga (private TV)
<b>SRI/SRA</b>	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 alternating irrigation and drying of the soil, plus farm manure and fertilizer)
<b>TFNAC</b>	Task Force National pour l'Agriculture de Conservation (National Task Force on Conservation Agriculture)
<b>TV</b>	Television
<b>TVM</b>	Télévision Malagasy (Malagasy TV : public TV)
<b>WUA</b>	Water Users Association

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## I- EXECUTIVE SUMMARY

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### *Partnership*

As part of the implementation of the collaboration agreement with ATDRM / APDRA on the promotion of rice-fish farming, the year 2020 was marked by the completion of training and monitoring of fish fattening in rice fields. Two (02) demonstration sites have been set up. Two (02) exchange visit sessions were also organized with breeders supervised by APDRA in the Vakinankaratra region. And finally, 93 carp spawners were introduced in the area in order to correct the problem of consanguinity of fish in the Region.

On the other hand, the collaboration with Fifamanor also started by carrying out a diagnosis on the existing dairy farming in the project areas. Then, on May 28 and 29, 2020, a two (02) day training course on feeding dairy cows took place at the Fifamanor center. The seven (07) technicians and the two (02) agronomists of the project are the beneficiaries. And, four (04) fodder crop demonstration sites have been set up in Ambohimandroso, Antemotra, Andranomanelatra and Soavina.

During the month of June 2020, monitoring missions of the Manitatra 2 project activities were carried out by agents of the DRAEP Vaninankaratra. These missions were organized to allow DRAEP agents to have a general overview of the agro-ecological practices disseminated. Two training sessions for the farmer leaders of the project were also carried out in the DRAEP meeting room.

Finally, 58 funding requests put together by farmers' organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agroecology financed by the FDA are being implemented: 02 rice-fish farming projects, 02 rain-fed rice farming projects, and 01 dairy cow breeding project.

### *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*

It is worth recalling that Her Excellency the Secretary General of COMESA gave her Non objection for the reallocation of the AWPB for year 3 of the Project. The proposed reallocations are summarized as follows:

- Continue reforestation actions in order to respond positively to the demands of the majority of farmers supervised by the project (Activity 1.3);
- However, support 3 farmer associations to provide Stylosanthes rollers, instead of 5 associations as described in the project document (Activity 1.2);
- Reduce budgets for activities carried out in collaboration with the ministries in relation to the time remaining: MAEP, DREDD, SRM Vakinankaratra... (Activity 2.5 et 2.6);
- Readjust (reduce) the amount planned within the framework of the collaboration with FIFAMANOR according to the budget described in the agreement (Activity 3.5);
- Collaboration with CEFFEL has already been achieved during the first year of the project (Activity 3.5). Mobilize the remaining funds for reforestation activities;
- Otherwise, it should be noted that the communication and visibility of GSDM interventions including the implementation of the MANITATRA 2 project, are part of the transversal activities of the GSDM. Thus, a certain number of activities do not require the mobilization of funds from MANITATRA 2, such as broadcasts on national radio and television (Activity 4.2);
- But by noting the positive impact of technical films and documentaries on agroecology produced and broadcast on national television, we propose to produce 3 other films on fish farming, dairy farming and conservation agriculture (Activity 4.3);

- Finally, increase the amount for carrying out the final evaluation of the project (Activity 6.2).

**From table 1 (details in Appendix 1), it appears that, as of December 31<sup>st</sup>, 2020, total budget engaged is 75,21% and total disbursed 65,35%. Results 1 and 2 showed the highest budget consumption as expected and Result 3 the lowest due to the delay in FDA implementation and the impossibility of implementing the activity 3.2 (Sharing experiences at the regional level (COMESA and other regions) integrating political actors and development actors) due to COVID 19.**

## *Detailed 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*

As of December 31, 2020, 11,518 farmers have adopted one or more practices in Climate Smart Agriculture. Among these adopters, there were 3,853 women e.g. 33.5% of women producers supervised by the project. But there is a high rate of female adopters in the Highlands (45.4%), compared to the Middle West of Vakinankaratra (27.2%). On the other hand, 65.4% of these peasants adopting Climate Smart Agriculture are in the Middle West of Vakinankaratra against 34.4 in the Highlands. Indeed, 04 of the 07 project intervention communes in the Middle West (Ankazomiriotra, Vinany, Fidirana and Inanantonana) were former areas of MANITATRA 1. A certain dynamism has already been created during this period and, strengthened during the implementation of the MANITATRA 2 project. While all of the intervention communes in the Highlands constituted a new area of scaling up, where no project to disseminate CSA was identified before MANITATRA 2.

720,000 forest tree seedlings are currently available from 47 nurserymen providing the project. These young plants are composed of *Acacia mangium*, *Eucalyptus citriodora*, *Liquidambar sp* and *Cassia siamea*. Reforestation is expected to be completed before the end of December 2021.

As part of the development of the plots, 550,863 linear meters of hedges, hedges and contour lines were installed. Generally, the project used *Cajanus* and *Tephrosia* which are bush legumes with high biomass production that can be used in the manufacture of compost.

Regarding the promotion of good agricultural practices, the practice of vermicompost continues to increase in the area, especially in the Highlands. Indeed, during this year, 394 farmers set up a vermicompost production unit. In addition, 68 breeders have benefited from project grants to improve their cowsheds. This makes it possible to produce quality manure for the various composting operations.

To achieve these results, it should be noted that the project subsidized seeds of cover plants, seeds of living hedges, seeds of biocidal and / or repellent plants, fodder seeds, orange flesh sweet potato cuttings, and fry for the practice of rice-fish farming. The production of these different types of seeds in the area constitutes a huge challenge for the project.

Likewise, the project introduced 93 carp spawners from the Analamanga region. The purpose of this import was to correct the problem of inbreeding of the fish. The ATDRM ensured the acquisition and delivery of these carp from 16 beneficiary fish farmers.

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

The training of nurserymen was already carried out in 2019. However, a support mission for DREDD Vakinankaratra agents was carried out this year with 47 nurserymen providing the project. The goal of this mission is to have healthy and robust tree seedlings at each nursery.

In November 2020, two training sessions for lead farmers were organized in the meeting room of DRAEP Vakinankaratra. Each session lasted 02 days. Three themes were developed during each session: techniques for preserving and processing fruits and vegetables; advice on family farming (family budget); and regulatory texts in fish farming.

From February 5 to 8, 2020, a training session for the benefit of certain teachers chosen by the CEG Betafo, CEG Ankazomiriotra and CEG Vinany was facilitated by the team of the central GSDM and the OEMC. This special session was organized to replace the trained teachers from CEG Ankazomiriotra and Vinany who were assigned to other regions; and to strengthen teachers in the

CEG Betafo, which has a large number of 6th and 5th year classes. As foreseen in the project document, a 3D animated film entitled "Agro-ecology for future generations" based on the contents of the playbook was officially released on October 09, 2020 at IMF Analakely / Antananarivo; and on November 05, 2021 at the Tranompokonolona in Antsirabe. It was produced by NOG'ONE.

For this agricultural campaign, 3,205 students benefited from the introduction of agroecology in schools. They are pupils in the 6th and 5th grade (and 4th for the CEG Ihazolava) in the 12 schools supervised by the project.

The the implementation of the application plots of the 12 schools supervised by the project were all carried out at the beginning of December 2020. The works constitute a practice for the students. The latter were supervised by trained teachers and project technicians.

Despite the health crisis linked to Covid-19, 596 visitors were nevertheless welcomed to the GSDM training site in Ivory during this year. Among them, we identified regional decision-makers, technicians, researchers, students, teachers, trainers, parents, journalists, photographer, and farmers.

On February 12, 2020, an awareness workshop was held with the SRM / DIRTTM of Vakinankaratra for the benefit of farmers' organizations, CDRs, CirAEP officials, local partners, and project technicians. 40 participants, including 10 women (25%) attended this session. In addition, 370 quarterly agrometeorology bulletins were produced and distributed to local development organizations within the framework of this convention.

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

At the beginning of October 2020, 58 funding requests put together by farmer organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agroecology funded by the FDA are currently being implemented: 02 rice-fish farming projects, 02 rainfed rice farming projects, and 01 dairy cow breeding project.

In addition, it should be remembered that the diagnosis carried out by the ATDRM team revealed a problem of consanguinity of fish in the area. Thus, the project introduced 93 broodstock in the area, including 60 males and 33 females. ATDRM coordinated this operation from fishing to the delivery of the carp spawners. There were 16 beneficiary fish farmers.

On the other hand, the GSDM and the Fifamanor have signed a partnership agreement for the implementation of activities for the benefit of breeders under the MANITATRA 2 project. On May 28 and 29, 2020, a two (02) day training course on feeding dairy cows took place at the Fifamanor center for the benefit of seven (07) technicians and two (02) agronomists. And, four (04) fodder crop demonstration sites have been set up in Ambohimandroso, Andranomanelatra, Antemotra and Soavina.

### *Communication and visibility*

On March 19 and 20, 2020, two (02) agro-ecology days were organized by the GSDM in the Vakinankaratra Region. A day and a half was devoted to visits to the achievements of the project. While the remaining half-day had made it possible to make a restitution in the room. These agro-ecology days were organized to strengthen advocacy actions in Agro-ecology at the national level. 167 people attended the event.

The GSDM worked with the E-see Magazine team to produce five (05) films on the following themes: the two (02) days of Vakinankaratra Agroecology; vermicompost manufacturing techniques; Conservation Agriculture to fertilize the soil; reforest for future generations; and, "Ady Gasy" or biological control to prevent disease and insects. In addition, three other technical films are currently being shot: rice-fish farming, dairy farming and conservation agriculture.

Then, the GSDM participates each month in the program "FIVOHY" on the national radio (RNM). This program also helps to strengthen awareness-raising actions on agroecology issues in the context of climate change.

### *Project administration (human and equipment)*

This year, backstopping was very disturbed by the crisis linked to Covid-19. For a while it was impossible for the central GSDM team to come to Antsirabe. However, videoconference meetings have been multiplied in order to coordinate the actions carried out in the field.

Two project technicians resigned at the end of 2020: the technician based in Ambatolampy (Hautes Terres) and Inanantonana (Middle West). The project has already recruited their replacement.

## Project oversight

On September 24, 2020, a meeting with the member of the project steering committee was organized at the Hotel Le Pavé in Antaninarenina / Antananarivo. The points exchanged during this meeting are: the approval of the COPIL minutes dated August 13, 2019; examination of the Activity Report - Year 2; and the Year 3 AWPB review of the MANITATRA 2 project

It should also be noted that the GSDM has established an internal reference situation. The starting point is the census, carried out at the start of the project, by the local team among farmers who practiced conservation agriculture during MANITATRA 1. And, complement it on the basis of several socio-economic surveys of agricultural households in the Vakinankaratra Region and cross-checking with the information collected from development actors in the Region.

In addition, following the call for expressions of interest launched by the GSDM on July 2, 2020 and the evaluations of the offers, the RIVO RABARIJOHN Consulting Group was mandated by the GSDM for the mid-term evaluation of the MANITATRA project. 2. A provisional version of the study has already been submitted to the GSDM Board of Directors for validation on December 22, 2020.

## *Lessons learned from 12 months of 2019*

During this year 2020, the performance of Mucuna-based systems has been confirmed. Indeed, on a plot with a good biomass of Mucuna the preparation before the installation of the rice is much easier. There are no weeds. So planting without tillage is possible. In addition, rice plants resist much longer during a rainfall hole compared to conventional systems. Finally, the increase in rice yield is palpable from the first year on cover.

Regarding the Upland Rice + Cajanus association, it was noted that the installation period of the Cajanus should not be the same in the Highlands as in the Middle West of Vakinankaratra. In the Middle West, the Cajanus installed after the second rice weeding (end of January - mid-February) gives good biomass after the rice harvest. On the other hand, on the Highlands where it is much colder, the Cajanus plants remain puny and without biomass if it is installed during this period. Observation on a few plots allows us to suggest dressing the rice plots after the first weeding (mid-January). This system is very interesting: natural tillage and good biomass.

In addition, we could still see the positive effects of exchange visits on the dissemination of innovative techniques. At the start of 2020, the rainfall was very uncertain. And during the exchange visits, the participants were able to appreciate the adaptation of Conservation Agriculture systems in this context. Right away, the project team collected just under two (02) tonnes of Mucuna seed. In addition, there are also many farmers who have started making vermicomposters (windrows) after these exchange visits; while knowing that decomposer worms are not yet available.

In addition, the installation of living hedges is starting to interest many farmers. This practice makes it possible to limit runoff. It also offers biomass for composting or cattle feed during the dry season. But is also allows to materialize the boundaries of the plots. On the project side, the living hedges enhance visibility. Indeed, they are beginning to mark the landscape in the project intervention areas. And in the Highlands, people recognize the intervention areas of the MANITATRA 2 project by the presence of hedges on plots.

Finally, the association of Acacia mangium with food crops (peanuts, ground peas, cassava) makes it possible to enhance land that has just been afforested for two (02) seasons. Farmers are much more motivated to maintain a plot where there are food crops compared to plots with pure reforestation. Thus, the Acacia also takes advantage of this care to grow even faster. The plots are also much more protected against zebu wandering and wild fires.

## *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. 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. Combined with the use of good quality manure, especially lombricompost, and good biomass, the project impact will be achieved in year 3.

The supervision of farmers in the production of seeds of specific plants (cover crops and hedges) is also a huge challenge for the project. Indeed, for the sustainability of the actions, the availability of these seeds on the spot constitutes a preponderant criterion. In addition, we observed many economic operators who came to prospect in the area to find seeds of cover plants and hedges. Thus, apart from its interests in the sustainability of project activities, seed production can also present itself as new sources of income for farmers.

Then, the financing by the FDA Vakinankaratra of the micro-projects set up by the POs supervised by MANITATRA 2 is a major challenge for the remaining period of the project. In particular, in the context of the acquisition of the Stylosanthes rolls which appears in the project document.

Finally, the GSDM proposed to continue reforestation. In fact, 720,000 young plants are already available from the 47 nurserymen providing the project. And, the planting of all these young plants should be completed during the month of January 2021.

## II- PARTNERSHIP

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As part of the promotion of rice-fish farming, the project has requested the support of specialized organizations such as APDRA. In the end, a collaboration agreement was signed with ATDRM / APDRA in order to strengthen the project team in this area.

At the start of the year, the project supervised 5 fingerlings in order to make the fingerlings more accessible. The majority of these nurserymen were surprised by the difference in production compared to the extensive farming they previously practiced. However, the management of their production workshop can still be improved.

However, the low rainfall in January and February 2020 was a major constraint when promoting this practice. In short, the fry were ready; but most of the rice fields were still dry. However, 304 farmers benefited from the 45,375 fry subsidized at half price by the project. But in total, the project supervised 316 enlargers including 74 women (23.4%). And, we found an average weight of 200g per fish in June-July 2020.

In addition, it should be remembered that the diagnosis carried out by the ATDRM team revealed a problem of consanguinity of fish in the area. This is because the fry breeders have not renewed their parents for a very long time. Thus, the project introduced 93 broodstock in the area, including 60 males and 33 females. ATDRM coordinated this operation from fishing to the delivery of the carp spawners. There were 16 beneficiary fish farmers.

On the other hand, the GSDM and the Fifamanor have signed a partnership agreement for the implementation of activities for the benefit of breeders under the MANITATRA 2 project. The general objective of this collaboration is to improve milk production in the Vakinankaratra Region, in order to diversify and increase the resources of family farms and to contribute to the national objectives of food security and sustainable development.

Thus, to begin its intervention, on April 22, 23, 24 and 28, 2020, Fifamanor also carried out a diagnosis of the existing dairy farming in the project areas. In the field, they thought particularly about the composition of the herd, the feeding system and the forage areas used, the habitat of dairy animals, the problems encountered in dairy farming, expectations and training desired by breeders.

Then, on May 28 and 29, 2020, a two (02) day training course on feeding dairy cows took place at the Fifamanor center. The seven (07) technicians and the two (02) agronomists of the project are the beneficiaries. Another session on other aspects of breeding management (breed improvement, hygiene and milk quality, basic concepts in animal health, technical and economic management of a farm, etc.) should be organized later.

Finally, four (04) demonstration sites on forage crops have been set up in Ambohimandroso, Antemotra, Soavina and Andranomanelatra

During the month of June 2020, monitoring missions of the Manitra 2 project activities were carried out by agents of the DRAEP Vaninankaratra. These missions are within the framework of the collaboration agreement that we have established with the DRAEP Vakinankaratra. In order to revitalize the collaboration between project technicians and DRAEP agents at the level of each district, these visits were made by the team from each district or CirAEP. The visits took place over two days for each Circumscription. In addition, the technicians prepared a tour circuit allowing to see the majority of the project activities, so that the DRAEP agents could have a general overview of the agro-ecological practices disseminated.

In addition, in November 2020, two training sessions for lead farmers were organized in the meeting room of the DRAEP Vakinankaratra. Each session lasted two days: November 19-20 for lead farmers in the Middle West; and 26-27 for those in the Highlands. Three themes were developed during each session: techniques for preserving and processing fruits and vegetables; advice on family farming (family budget); and regulatory texts in fish farming.

In addition, the agents of the DREDD Vakinankaratra carried out monitoring missions of the reforestation carried out by the project. At the end of this mission, the DREDD issued a certificate for the reforestation carried out since the start of the project.

The actual training on the management of a nursery has already been carried out by agents of DREDD Vakinankaratra during year 2 of the project. But, in order to ensure the quality of the young plants produced, the 47 nurserymen who collaborate with the project this year have been monitored by DREDD. This support mission lasted for 07 days. The objective of these missions is to help nurserymen to produce healthy and robust tree seedlings.

As part of the collaboration with the Regional Meteorological Service (branch of the Inter-Regional Directorate of Transport, Tourism and Meteorology), on February 12, 2020, an awareness workshop was held with the

SRM / DIRTTM of Vakinankaratra for the benefit of farmers' organizations, CDRs, CirAEP officials, local partners, and project technicians. 40 participants, including 10 women (25%) attended this session.

In addition, 370 quarterly agrometeorology bulletins were produced and distributed to regional development organizations.

Finally, at the beginning of October 2020, 58 funding requests set up by farmer organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agro-ecology have benefited from FDA funding: 02 rice-fish farming projects, 02 rain-fed rice farming projects, and 01 dairy cow breeding project.

### **III- OBJECTIVES**

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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

The following table presents the project financial performance as of December 2020

Table 1: Project financial performance following the logical framework

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSED € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGED / Budget Realloc	% DISBURSED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
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	280 039,47	329 552,89	221 448,39	187 818,34	18 693,87	18 693,87	206 512,21	248 532,65	75,42%	62,66%
2.	RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry	103 022,11	88 857,87	80 724,34	53 333,26	14 690,11	8 851,53	68 023,37	78 177,02	87,98%	76,55%
3.	RESULT 3 : Farmers organisations are supported and linked to various stakeholders in the Agriculture to support sustainability of the project results	32 512,20	25 614,84	18 925,04	7 188,74	-	-	7 188,74	12 278,26	47,93%	28,06%
4.	COMMUNICATION AND VISIBILITY	50 235,86	36 807,93	16 064,71	21 603,24	2 832,58	2 832,58	24 435,82	24 435,82	66,39%	66,39%
5.	PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)	168 093,87	165 057,26	110 007,59	106 281,91	17 384,12	17 384,12	123 666,03	128 381,45	77,78%	74,92%
6.	PROJECT OVERSIGHT	45 789,27	37 583,60	32 197,85	5 018,50	14 169,58	986,01	19 188,07	23 684,61	63,02%	51,05%
July 2018 to Dec 2020		679 692,79	683 474,40	479 367,92	381 243,98	67 770,26	48 748,11	449 014,24	515 489,80	75,42%	65,70%
7.2.1	Administrative charges	47 578,49	43 796,88	26 723,06	26 228,67	-	4 743,92	26 228,67	31 466,98	71,85%	59,89%
YEAR 3 TOTAL REALLOC BUDGET (EUROS)		727 271,28	727 271,28	506 090,98	407 472,65	67 770,26	53 492,03	475 242,91	546 956,77	75,21%	65,35%

## V- DETAILED PROGRESS ON PROJECT IMPLEMENTATION

Paragraphs below give details on project progress during year 2020 compared to the project targets

### 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, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries

Table 2: Inception workshop and awareness raising in 2020

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
1.1.1	Inception workshop	Number of workshop	1	1	100%	0	0	1	100%
		Number of participant	120	110	92%	0	0	110	92%
1.1.2	Exchanges visites between & inside communes	Number of participants in exchanges visits inside communes	8 000	3 461	43%	3 361	42%	6 822	85%
		Number of participants exchanges visits between commune	500	570	114%	460	92%	1 030	206%
	Awareness, Information and communication about project activities	Number of participants	7 000	5 691	81%	1 652	24%	7 343	105%
1.1.3	Car hiring and other expenses during awareness raising	Number of car hiring days	100	27	27%	28	28%	55	55%

The year 2020 was marked by the onset of the COVID-19 pandemic at the end of March. Respect for social distancing and barrier gestures thus limited the organization of all types of group sessions, including visits, exchanges and information and communication meetings on the activities developed by the project.

#### V.1.1.1. Exchange visits inside communes

Table 3: Exchange visits inside communes during year 2020

Zones et communes d'intervention	Nombre de session	Nb Participant	Nb Femme	% Femme
<b>Highland</b>	<b>104</b>	<b>2028</b>	<b>997</b>	<b>49,2%</b>
Ambatolampy	4	55	26	47,3%
Ambohimandroso	27	553	259	46,8%
Ambohipihaonana	2	30	19	63,3%
Ampitafika	12	327	153	46,8%
Andranomanelatra	21	325	212	65,2%
Andravola	2	19	9	47,4%
Antanifotsy	12	204	75	36,8%
Antsoatany	2	50	25	50,0%
Hautes Terres	1	61		0,0%
Morarano	15	266	155	58,3%
Soamanandriny	6	138	64	46,4%
<b>Midwest</b>	<b>89</b>	<b>1333</b>	<b>550</b>	<b>41,3%</b>
Ambohimasina	3	55	38	69,1%
Ankazomiriotra	12	180	73	40,6%
Antohobe	13	215	96	44,7%
Fidirana	17	257	81	31,5%
Inanantonana	10	164	86	52,4%
Inanatonana	4	43	20	46,5%
Soavina	12	198	78	39,4%
Vinany	18	221	78	35,3%
<b>Overall total</b>	<b>193</b>	<b>3361</b>	<b>1547</b>	<b>46,0%</b>

Peasants in the Vakinankaratra Region, or even take time to see the effectiveness of an innovation before making it their own. Hence the importance of setting up farmer field schools (CEP) at the level of each leader farmer. During the various training or exchange visit meetings, the other farmers will be able to assess the relevance, adaptation, accessibility and effectiveness of practices in maintaining productive resources. In short, the FFS will serve as a reference for the target farmers.

During 2020, the project team facilitated the organization of 193 intercommunal exchange visits. Thus, 3361 participants were counted, of which 1547 were women (i.e. 46%). But combined with previous achievements, at this stage, 85% of the project's objective in terms of participation in inter-municipal exchange visits has been achieved.

#### V.1.1.2. Exchange visits between communes

Table 4: Exchange visits between communes achieved during year 2020

Zones et communes d'intervention	Nombre de session	Nb Participant	Nb Femme	% Femme
<b>Highland</b>	<b>8</b>	<b>228</b>	<b>99</b>	<b>43,4%</b>
Hautes Terres	7	196	91	46,4%
Sahanivotry (Visite Sites APDRA)	1	32	8	25,0%
<b>Midwest</b>	<b>8</b>	<b>232</b>	<b>69</b>	<b>29,7%</b>
Inanatonana et Vinany (Visite Sites APDRA)	1	30	3	10,0%
Moyen Ouest	7	202	66	32,7%
<b>Overall total</b>	<b>16</b>	<b>460</b>	<b>168</b>	<b>36,5%</b>

Remember that MANITATRA 2 covers two different ecosystems: the Middle West (600 to 1000 m altitude) and the Highlands (1200 to 1800 m altitude). And the exchange visits take place at sites supervised by the project in these areas, but also at the GSDM training site in Ivory. During this year, 16 extra-municipal exchange visits were carried out. There were 460 participants, including 168 women (or 36.5%). During these visits, the project tries to show the different agro-ecological practices disseminated. However, a few practices come up more often in discussions: rainfed rice after mucuna and vermicompost.

Vermicompost was also widely discussed during these visits. In general, the high cost of fertilizers and the circulation of falsified products in the area are among the motivations of farmers in relation to the practice of vermicompost. In addition, it can be easily carried out in the area.

Note that 02 visits were co-organized with ATDRM agents to fish farmers supervised by APDRA in Sahanivotry / Manandona, Antanety Sud / Inanantonana and Mazoto / Vinany.

In addition, a 2-day exchange visit was organized for the members of the CROA and the staff of the FDA Vakinankaratra in the two project areas. The objective was to make this FDA funding body aware of the agro-ecological practices developed by the project. We also took advantage of these two days to advance the services that the FDA can provide in order to limit the constraints encountered by adopters.

### V.1.1.3. Awareness, information and communication

Table 5: Awareness, Information and communication about project activities in 2020

Zones et communes d'intervention	Nombre de session	Nb Participant	Nb Femme	% Femme
<b>H.T</b>	<b>23</b>	<b>395</b>	<b>231</b>	<b>58,5%</b>
Ambatolampy	4	107	33	30,8%
Ambohimandroso	2	37	34	91,9%
Ambohipihaonana	7	101	83	82,2%
Ampitatafika	1	31	9	29,0%
Andranomanelatra	1	26	9	34,6%
Andravola	4	44	28	63,6%
Antanifotsy	3	39	29	74,4%
Morarano	1	10	6	60,0%
<b>M.O</b>	<b>54</b>	<b>1257</b>	<b>593</b>	<b>47,2%</b>
Ambohimasina	3	35	17	48,6%
Ankazomiriotra	5	67	23	34,3%
Antohobe	11	164	62	37,8%
Fidirana	14	244	93	38,1%
Inanantonana	12	253	130	51,4%
Soavina	4	74	41	55,4%
Vinany	5	420	227	54,0%
<b>Total général</b>	<b>77</b>	<b>1652</b>	<b>824</b>	<b>49,9%</b>

For this year, 77 information and awareness meetings were held as part of the project. In general, this activity is organized by technicians and farmer leaders at the start of each agricultural season. Then, other sessions follow one another throughout the year in order to sensitize farmers on more precise agro-ecological practices, and to inform them about the methodologies of project intervention on each theme. A total of 1652 participants in these sensitization meetings were registered. Among these participants, 824 women were registered (or 49.9%).



Picture 1 : Exchange visit of CROA - FDA Vakinankaratra members on the Antemotra fish farm



Picture 2 : Exchange visit of the borrowers of the NGO Vahatra on a plot with good biomass of maize + mucuna.

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

Table 6: Conservation Agriculture upscaling

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
1.2.1	Provides seeds of cover crops (mucuna, Stylosanthes, cowpea...)	Number of farmers provided seeds of cover crops	5 000	2 847	57%	3 161	63%	6 008	120%
		Acreage of full Conservation Agriculture (ha of CA)	2 000	425,19	21%	1 449,34	72%	1 449,34	72%
1.2.2	Support for Stylosanthes rollers	Number group farmer provided Stylosanthes rollers	5	0	0%	0	0%	-	0%

At the end of 2020, the project target in terms of the number of farmers benefiting from cover crop seeds has been reached at 120%. For However, the availability of these seeds will continue during the next quarter.

The area of tanety cultivated using conservation agriculture techniques is 1449.34 ha. This represents 72% of the final target. Other plot dressings are still to be expected from January 2021.

Finally, the project supported 58 farmer organizations to formulate a micro-project in agroecology with a view to applying for funding from the FDA Vakinankaratra. Among these 58 requests, there were 02 of a roll of Stylosanthes. But they did not get funding from the FDA. However, after the exchange visit carried out by the project for the members of AORC Vakinankaratra, the vital utility of this agricultural equipment should be better known by this decision-making body within the FDA.

### V.1.2.1. Provides seeds of cover crops

It should be noted that in the agricultural sector, the year 2020 can be divided into two parts: the 2019-2020 crop year (from January to September) and the 2020-2021 crop year (from October to December). During the 2019-2020 agricultural season, the project made available to 3,119 supervised farmers, including 1,390 women (i.e. 44.6%):

- 8.025kg of *Cajanus cajan*,
- 9.862kg of mucuna,
- 50kg of Cowpea david,
- 600kg of Soy,
- 1.087kg of Stylosanthes,
- and, 600kg of oats

Then, from October to December 2020, 1,065 farmers including 494 women (or 46.4%) benefited from the seeds of cover plants from MANITATRA 2: oats, *Cajanus*, mucuna and Stylosanthes. Thus, for the whole of 2020, there are 3,161 farmers who have received this type of seed through the project. Combined with previous achievements, there are currently 6008 beneficiaries; or 120% of the target set in the project document.

### V.1.2.2. Conservation Agricultural (CA) practice

From January to September 2020, the project supported 2,739 farmers (40% women) in the practice of Conservation Agriculture at the level of 1,095.77 ha of plots. It should be remembered that Conservation Agriculture is based on three (03) principles: reduction of soil disturbance, permanent cover of plots, and association and / or crop rotation. In general, these achievements consist of dressing pluvial rice plots with *Cajanus*, dressing corn plots with mucuna, the association of corn + edible legumes or the installation of rainfed rice on maize harvest residues + food legumes, and dressing of food crops with Stylosanthes (a particularity for the Middle West of Vakinankaratra).

Table 7: Achievement in Conservation Agriculture (CA) from January to September 2020

Main CA system	Area (ha)	Number of plots	Number of adopting farmers	Number of women	% women
CA associated on mulch of shrub legumes	306,60	1 512	1 177	528	0,45
CA on mulch of mucuna	279,01	1 504	1 162	498	42,9%
CA on mulch of food legumes	229,06	906	746	293	39,3%
CA on mulch of Stylosanthes	266,20	744	563	141	25,0%
CA on mulch of food legumes and Oat	6,76	50	49	14	28,6%
CA on mulch of Oats	4,88	73	73	34	46,6%
CA associated on mulch of shrub legumes and Oat	3,26	21	19	2	10,5%
<b>Total général</b>	<b>1 095,77</b>	<b>4 810</b>	<b>2 739</b>	<b>1 096</b>	<b>40,0%</b>

This period allowed us to appreciate the very interesting performance of Mucuna-based systems. Indeed, a good biomass of mucuna gives clean plots at the time of establishment. And, rainfed rice sown directly on mucuna residue shows a lot of resistance to the very random rainfall at the start of the year. Then, the mucuna limits the pressure of pests, including various soil-dwelling insects and the fall armyworm. Finally, the difference in yield compared to conventional systems, and even compared to other systems in conservation agriculture is very significant.

Table 8: Yield comparison between conventional systems and CA systems

Soil management	Rice				Maize			
	Number of plots	Avg Yield (kg/ha)	Std deviation (kg/ha)	CV (%)	Number of plots	Avg Yield (kg/ha)	Std deviation (kg/ha)	CV (%)
Tillage (1)	498	1382,4	801,0	57,9%	424	1242,2	974,3	78,4%
On mulch, no tillage	409	2634,1	977,4	37,1%	39	2389,5	712,4	29,8%
<b>Ecart de rendement (2) - (1)</b>	<b>kg/ha</b>	<b>1251,7</b>			<b>kg/ha</b>	<b>1147,2</b>		
	<b>%</b>	<b>90,6%</b>			<b>%</b>	<b>92,4%</b>		

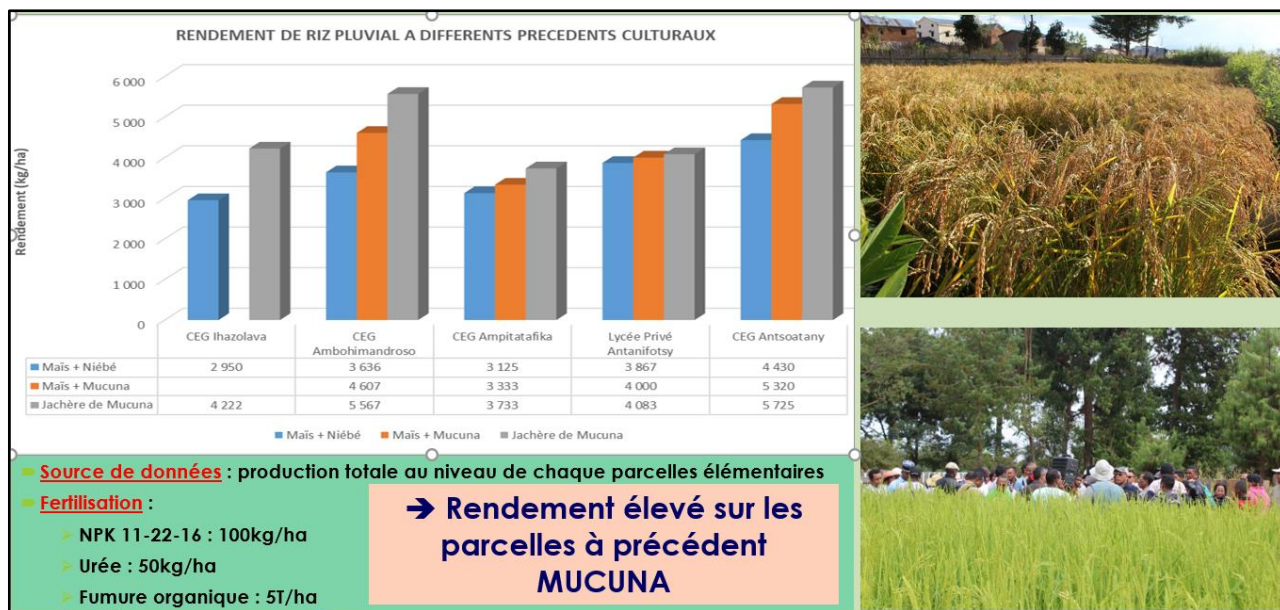
It should be noted that the data on conventional systems were collected at the level of unsupervised plots around the leading farmers. On the other hand, data on CA crops come from plots supervised by the project. And, on reading this table, we see a doubling of yield of rainfed rice and maize in CA.

Table 9: Comparison of crop yields in CA systems according to previous crops

	Rice				Maize			
	Number of plots	Avg Yield (kg/ha)	Std deviation (kg/ha)	CV (%)	Number of plots	Avg Yield (kg/ha)	Std deviation (kg/ha)	CV (%)
CA on mulch of mucuna	56	3286,1	1182,3	36,0%	14	2569,2	702,3	27,3%
CA on mulch of food legumes	341	2554,6	896,6	35,1%	9	2325,9	739,0	31,8%
CA on mulch of Stylosanthes	12	1850,7	754,2	40,7%	16	2268,0	720,3	31,8%

This table confirms the impressions of the participants in the exchange visits concerning the performance of the Mucuna systems. In addition, in fact, there is an increase in yield of 137.7% and 106.8% successively of rice and corn on plots with previous Mucuna compared to the conventional system. The installations carried out at the level of the application plots of the CEGs supervised by the project show a very interesting yield of rainfed rice following a year of fallow of Mucuna.

Picture 3: Comparison of rainfed rice yield according to different previous crops



Then, from October to December 2020 (2020/2021 agricultural campaign), the project supervised 4,218 farmers (39.2% women) to practice conservation agriculture on 1,449.34 ha of tanety. This represents 72% of the final objective of the project. Having carefully observed the results during the 2019/2020 crop year, many farmers opted for Mucuna-based systems, followed by Stylosanthes-based systems.

Table 10: Achievement in Conservation Agriculture from October to December 2020

Main CA systems	Number of plots	Area(ha)	Number of adopting farmers		
			Total	Women	% Women
CA on mulch of mucuna	2129	488,99	1488	625	42,0%
CA on mulch of Stylosanthes	1191	406,16	806	201	24,9%
CA on mulch of Shrub legumes	1375	289,94	1007	433	43,0%
CA on mulch of food legumes	1173	263,06	899	383	42,6%
CA on mulch of Oat	18	1,21	18	12	66,7%
<b>Total général</b>	<b>5886</b>	<b>1 449,34</b>	<b>4 218</b>	<b>1 654</b>	<b>39,2%</b>



Picture 4 : Rainfed rice on mulch from Stylosanthes in Amparihy (Middle West)



Picture 5 : Good vegetation of the corn sown directly on mulch of Stylosanthes in Mamoriomy – Fidirana (Middle West)

### V.1.3 Upscale agroforestry and forestation

Table 11 : Agroforestry and forestation upscaling

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
1.3.1	Support tree nurserymen (potting bags, other materials...)	Number of tree nursery man supported	50	58	116%	47	94%	72	144%
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus...)	Number of trees plantlets for reforestation	1 500 000	557 351	37%	1 095 051	73%	1 652 402	110%
1.3.3	Support adopting farmers in fruit tree plantlets	Number of fruit plantlets of farmers adopting	50 000	8 618	17%	4 838	10%	13 456	27%
1.3.4	Provide seeds of hedgerows (Cajanus, Tephrosia....)	Number of farmers provided seeds of hedgerows	6 500	2 291	35%	2 433	37%	4 724	73%
		length of hedgerow (in linear meter)	1 000 000	532 992	53%	550 863	55%	1 083 855	108%

For this year, 47 nurserymen including 12 women (25.5%) ensure the production of young forest plants for the project. Among them were nurserymen who have already worked with the project during these two years, and other new nurserymen. At the end of 2020, more than 720,000 forest tree seedlings are already available from these nurserymen. But, the delay in rain forced the project team to plan reforestation for early January 2021.

In short, since the start of the project, there are currently 72 nurserymen providing MANITATRA 2. This corresponds to 144% of the final objective of the project.

Then, 1,095,051 forest tree seedlings were planted at the start of 2020. With the previous achievement, 1,652,402 seedlings were thus planted under MANITATRA 2; or 110% of the project objective. However, given the importance of this activity in the two project intervention areas, reforestation should continue in 2021, with 720,000 seedlings planned for the farmers' subsidy.

Regarding the support of the project within the framework of the promotion of fruit trees, we kept the same procedures as before. That is to say, a subsidy is granted at 50% of the prices of young fruit plants, but capped at 1250Ar. In 2020, 4,838 young fruit plants delivered to a few supervised farmers following the actions of the project.

Thus, 13,456 fruit tree seedlings were partially subsidized in order to help the peasants to have an additional periodic income. This result represents 27% of the final objective of the project.

Finally, the installation of hedges and living hedges at plot level is one of the practices promoted by the project. It both reduces the harmful effects of water erosion, while producing biomass for various composting. But as in the case of CA dissemination, the project was forced to import the seeds from the hedgerows. Since the start of the project, 4,724 farmers have been able to acquire seeds from the project. This corresponds to 73% of the final objective of the project.

In addition, 1,083,855 linear meters of hedging and living hedges have been put in place; corresponding to 108% of the project objective.

#### V.1.3.1. Support to nurserymen

At the end of 2020, 47 nurserymen including 12 women (25.5%) are collaborating with the MANITATRA 2 project for the production of 720,000 forest tree seedlings. These young plants will be distributed free of charge to farmers interested in reforestation or reforestation activities. On the other hand, the project will pay the young plants released at the level of these nurserymen at Ar 190 per unit.

Table 12: List of nurserymen/women in 2020

N°	Name	Commune	Fokontany	Village	Number of plantlets produced
1	Rakotondramary Roger	Andranomanelatra	Fiadanana	Ambatomainy	30 000
2	Rasoanandrasana Marie Odette	Andranomanelatra	Tsaramandroso Gara	Ankofafa	25 000
3	Rasoanantenaina Theodile	Andranomanelatra	Antanetibe toavala	Andranotsara	15 000
4	Randrianarisoa Etienne	Antsoatany	Antsoatany	Antsoatany	10 000
5	Rajaosafara Harimalala Ida Odette	Ambohibary	F. Sambaina	Ampandraofana	15 000
6	Andriamiantsoa Aimé Jean Michel	Soamanandrarinny	Antanety 1	Antanety	11 000
7	Ralaimidona Leonard Etienne	Antanifotsy	Antsahamaina	Antsahamaina	10 000
8	Haingoharitia Holiniana V.	Antanifotsy	Antanety	Antemotra	20 000
9	Rasoamampionona Honorine	Antanifotsy	Antanety	Antemotra	15 000
10	Ratolojanahary Njaka Mamisoa Aimé	Ampitatafika	Tsarahanonana	Gara	12 000
11	Razafindravony Laingo Maminirina	Ampitatafika	Maroandro	Masoandro	10 000
12	Vololoniaina Linah Herintsoa Safidy	Ambohimandroso	Antsampanrano	Soavina	10 000
13	Randriamihajaso Bruno	Ambohimandroso	Mahaketraka	Mahaketraka	12 000
14	Rasoanandrasana Ina Jocelyny Noro	Ambatolampy	Ambanimaso I	Antanimarina	25 000
15	Randriamampiadana Pascal	Morarano	Andriamigodana	Ambodivona	35 000
16	Rafalimanana Lala Jean	Ambohimandroso	Isody	Analalava	5 000
17	Rakotomalala Herisoa	Inanantonana	Inanantonana	Inanantonana	15 000
18	Randriamiandrisoa Tokiniaina Ferdinand	Vinany	Andromba	Andromba	12 000
19	Rakotonirina Jean Noël	Vinany	Ambatolahy	Ambatolahy	5 000
20	Rakotonanahary Edmond	Vinany	Mazoto	Amparihy	6 000
21	Koperativa Fanilo	Vinany	Mazoto	Amparihy	10 000
22	Randrianotahianiaina Mamy Victor	Vinany	Ampasatokana	Ambohitromby	8 000
23	Rabenandrasana Joseph	Vinany	Ankamory	Ankamory	6 000
24	Rasoamalala Georgette	Ankazomiriotra	Ankazomiriotra 2	Avaratsena	6 000
25	Randrianasolo Faralahy	Ankazomiriotra	Ankazomiriotra 1	Ambohipoloalina	8 000
26	Ravomanana Richard	Ankazomiriotra	Belanitra	Tsaratana	8 000
27	Rakotoniaina Solomon	Antohobe	Matieloana	Matieloana	6 000
28	Ranoavomanana Morasata	Antohobe	Masoandronarivo	Korosovola	14 000
29	Rafanjanirina Jeanne Philomène	Antohobe	Antohobe	Antohobe	14 000
30	Narindranjanahary Fitolahy Edmond	Antohobe	Antohobe	Antohobe	14 000
31	Andriantsiferana Olivier	Antohobe	Soavina 2	Soavina 2	10 000
32	Rakoto Philippe	Soavina	Soavina	Tsinjoarivo	14 000
33	Randriamanantena Jean Pierre	Soavina	Antanety	Antokofoana	14 000
34	Randriamanantena Jules	Soavina	Antanety	Antokofoana	14 000
35	Rasoamampionona Clementine	Fidirana	Ambohimasikely	Ambohimasikely	10 000
36	Rakotomanantsoa Modeste	Fidirana	Ambohibolakely	Ambohibolakely	25 000
37	Rasoarimanana Myriame Isabelle	Fidirana	Fidirana	Fidirana	25 000
38	Mahasoa Maxi Lia Liliane	Fidirana	Tsaratany		5 000
39	Rabemanantsoa Augustin	Fidirana			10 000
40	Razafimahatratra Armand	Inanantonana	Bemasoandro	Bemasoandro	7 500
41	Rafamatanantsoa Martin	Inanantonana	Inanantonana	Inanantonana	12 500
42	Rakotonjanahary Andriamiandrisoa Jean Guy	Inanantonana	Antanety Sud	Antanety Sud	15 000
43	Kantonirina Fanoela	Ambohimasina	Belanitra	Marovitsika	10 000

N°	Name	Commune	Fokontany	Village	Number of plantlets produced
44	Rasolomanana Justin	Inanantonana	Ambatomainty	Ambohijato	15 000
45	Ranivonirina Olga Dauphine	Antanifotsy	Andriatsilahy	Andriatsilahy	10 000
46	Rakotondrasoa Fanja Harinaivo	Ankazomiriotra	Ankazomiriotra 2	Avaratsena	6 000
47	Ramahazomanana Jean Aimé François	Ambatolampy	Ambanimaso I	Antanimarina	125 000
<b>TOTAL</b>					<b>720 000</b>

#### V.1.3.2. Support adopting farmers in tree plantlets for reforestation

During year 2, 3,136 peasants including 742 women (24%) afforested their land in the two intervention zones of Manitra 2. A total number of 1,095,051 young plants were planted. Thus, the cumulative achievement of transplanted young plants represents 110% of the final objective of the project. However, following the insistence of the farmers, the project proposed 720,000 additional young plants for the year 2021.

Table 13: Forest species used during reforestation in 2020

Zone/Espèces forestières	Number of plantlets	Number of plots	Total adopters	Women	% women
<b>H.T</b>	<b>337 421</b>	<b>1 141</b>	<b>709</b>	<b>244</b>	<b>34,4%</b>
<i>Eucalyptus Camaldulensis</i>	2 700	6	6	1	16,7%
<i>Eucalyptus Citriodora</i>	316 626	1 110	687	239	34,8%
<i>Liquidambar sp</i>	18 095	25	25	3	12,0%
<b>M.O</b>	<b>757 630</b>	<b>4 741</b>	<b>2 427</b>	<b>498</b>	<b>20,5%</b>
<i>Acacia mangium</i>	700 565	2 649	2 374	496	20,9%
<i>Eucalyptus Citriodora</i>	57 065	2 092	1 917	395	20,6%
<b>Total général</b>	<b>1 095 051</b>	<b>5 882</b>	<b>3 136</b>	<b>742</b>	<b>23,7%</b>

The project team, especially this one in the Middle West, is advising people to plant low-input crops in association with young forest seedlings. Cassava, peanuts and ground peas are ideal for this purpose. Thus, the peasants can have food products during the first two (02) years when the trees are still small. In addition, these crops protect tree seedlings from fire or zebu straying. Finally, species like *Acacia mangium* will grow even faster by taking advantage of the care and maintenance done by farmers for food crops.

#### V.1.3.3. Support adopting farmers in fruit tree plantlets

Table 14: Achievement in fruit tree and cash crop in 2020

	Number of plots	Areas (ha)	Number of adopting farmers		
			Total	Women	% Women
<b>Fruit tree species</b>	<b>617</b>	<b>2754</b>	<b>228</b>	<b>108</b>	<b>47,4%</b>
Citrus	157	594	106	45	42,5%
Avocado tree	12	62	10	4	40,0%
Bibassier	1	18	1	0	0,0%
Chop	3	3	3	2	66,7%
<i>Goavy Tsinahy</i>	2	11	2	1	50,0%
Jackfruit	3	7	2	2	100,0%
Litchi	46	88	46	17	37,0%
Mango	14	47	11	5	45,5%
Papaya	30	375	24	12	50,0%
Peach tree	141	597	104	51	49,0%
Persimmon (Khaki)	45	183	45	19	42,2%
Pear tree	80	403	74	32	43,2%

	Number of plots	Areas (ha)	Number of adopting farmers		
			Total	Women	% Women
Apple tree	72	338	68	32	47,1%
plum tree	2	4	2	2	100,0%
Vine	9	24	9	5	55,6%
<b>Cash crop</b>	<b>93</b>	<b>2084</b>	<b>91</b>	<b>36</b>	<b>39,6%</b>
Coffee tree	92	2044	91	36	39,6%
Ravitsara tree	1	40	1	0	0,0%
<b>Total général</b>	<b>710</b>	<b>4838</b>	<b>291</b>	<b>129</b>	<b>44,3%</b>

In 2020, the actions undertaken by the project made it possible to support 291 farmers, including 129 women (or 44.3%) in order to acquire 4,838 plants of young fruit plants and rents at a subsidized price. However, implementation has remained low since the start of the project, with a rate of 27% compared to the objectives set in the project document.

Fruit trees and annuities provide significant periodic annual income for producers. However, we note that this activity is of more interest to peasants in the Highlands than to those in the Middle West. This is due to the facilitation of the evacuation of the product, being bordered by the RN7.

#### V.1.3.4. Support adopting farmers in seeds of hedgerows

Live hedges have several functions: limit water erosion, act as a windbreak, and produce biomass for the production of quality composts. In addition, Tephrosia is also a repellent plant, which can be valued as "Ady gasy". Tephrosia and Cajanus cajan are the plants used by the project for this practice. They are two leguminous shrubs that also improve the structure of the soil, and help infiltrate water with its very powerful root systems.

During the year 2020, 2,433 farmers were subsidized with seeds of Tephrosia and Cajanus cajan. In addition to the previous beneficiaries, 73% of the final project objective is currently achieved.

#### V.1.3.5. Achievement in hedgerow

Table 15: Countour plantings achieved in 2020

Countour planting	Number of plots	Length (m)	Number of farmers	Women	% adopting women
<b>Countours</b>	179	110 561	133	44	33,1%
Countours plantings	179	110 561	133	44	33,1%
<b>Living hedges with</b>	986	440 302	871	375	43,1%
Cajanus	295	144 568	288	115	39,9%
Tephrosia	377	138 439	338	165	48,8%
Tephrosia + Cajanus	314	157 295	302	117	38,7%
<b>Total général</b>	<b>1 165</b>	<b>550 863</b>	<b>963</b>	<b>405</b>	<b>42,1%</b>

To use the tanety sustainably, the plots must be properly developed. This practice limits erosion and keeps soil fertility in place. Moreover, there are a lot of producers who do it, but they do it very badly; with the objective of evacuating rainwater. So, it has the opposite effect. Because the device has become a starting point for Lavaka. On the other hand, a well-done layout favors the infiltration of water to supply the water table.

In 2020, 550,863 meters of living hedges were installed in the area; or 1,652,402 meters since the start of the project.



Picture 6 : Reforestation with *Acacia mangium* from WUA Lavadia Mahatafandry, associated with cassava for the protection of the watershed in Morarano



Picture 7 : *Cajanus cajan* hedge associated with *Bracharia marandu* on the Ankily - Fidirana watershed

#### V.1.4 Promote other best practices

Table 16: Best practices disseminated by the project

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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	5 500	1 478	27%	3 286	60%	4 764	87%
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	10	10	100%	0	0%	10	100%
		Number of swath <sup>1</sup> (for composting)	250	154	62%	394	158%	548	219%
	Compost 7 days	Number of swath	200	82	41%	33	17%	115	58%
	Compost 45 days	Number of swath	200	135	68%	52	26%	187	94%
	Classic compost	Number of swath	600	430	72%	345	58%	775	129%
	Liquid compost	Number of production units	250	136	54%	111	44%	247	99%
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	300	90	30%	68	23%	158	53%
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	2 000	285	14%	768	38%	1 053	53%
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	150	0	0%	332	221%	332	221%

<sup>1</sup> A swath is the habitat where the worms are produced

During this year, the project distributed seedlings of Comfrey, Absinthe and Tansy. However, it should be remembered that Mucuna (cover plant) and Tephrosia (living hedge) are also repellent plants. Since the start of the project, 87% of the target in terms of the number of farmers benefiting from these plant materials has been achieved.

Actions within the framework of support for the management of organic materials also continued during this period. Vermicompost, classic and 45d compost, and liquid compost are much more popular. On the other hand, the practice of 7 days compost is a little limited.

In addition, the project offered to participate in the improvement of stables in order to produce good quality manure. During this year, 68 breeders have benefited from technical advice and cash subsidy of 150,000 Ar / barn in average in this direction.

To support the endowment of fodder seeds and orange-fleshed sweet potato lianas, 768 beneficiaries were registered during this year.

Finally, as part of the promotion of rice-fish farming, the project offered a subsidy at half the price of the fry. In addition, to try to correct the problem of consanguinity observed during the diagnosis, the project facilitated the introduction of 93 carp spawners from the region of Analamanga.

#### V.1.4.1 Provide seeds of plants used as bio-pesticides and repellent plants

Table 17: Provision of plant materials used as biocide and / or repellents during year 2

Biocidal and / or repellent plants	Number of seedlings
Absinthe	900
Tansy	1.475
Comfrey	1.825

In 2020, 4,200 plantlets of tansy, comfrey and wormwood were supplied from the CEFTEL Andranobe center. This was delivered to the leader peasants and a few peasants to serve as a nursery in their areas. These species are used as liquid manure or mixed in liquid compost to reduce the need for chemical treatments as much as possible. Comfrey manure is used for prevention and treatment against mildew on plots of potatoes or tomatoes. Absinthe liquid manure helps control aphids. Tansy manure is very effective against red mites.

In addition, it should be remembered that Mucuna (used as cover plants) and Tephrosia (living hedge) are also used as repellent plants. Indeed, tephrosia manure gives good results against Cabbage Plutella.

In short, during the year 2020, there are 3,286 farmers benefiting from plant materials of biocidal and / or repellent plants from the project. Combined with previous achievements, there have been 4,764 beneficiaries since the start of the project; or 87% of the target set in the project document.

#### V.1.4.2 Organic matters management

##### a) Vermicomposting

Vermicompost is one of the practices that interests many farmers in the area. The quality of the organic matter produced and the reduction in expenses linked to the cost of chemical fertilizers constitute the main motivations of farmers in this practice. Indeed, at the end of March 2019, the project introduced 10 kg of decomposing worms (*Eisenia foetida*) to 13 farmers. Afterwards, decomposing worms are transmitted from farmer to farmer.

From January to December 2020, the project supervised 394 new adopters in vermicompost. This gives a total of 548 adopters at this stage; or 219% of the final target set.

Table 18: Achievement on vermicomposting in 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
Ambatolampy	20	14	70,0%
Ambohibary	3	2	66,7%
Ambohimandroso	30	5	16,7%
Ambohipihaonana	92	62	67,4%
Ampitatafika	11	2	18,2%
Andranomanelatra	26	10	38,5%
Andravola	22	12	54,5%
Antanifotsy	13	3	23,1%
Antsoatany	10	2	20,0%

Communes	Number of adopter	Woman adopting	% Woman adopting
Morarano	41	22	53,7%
Soamanandrany	21	9	42,9%
<b>Subtotal Highlands</b>	<b>289</b>	<b>143</b>	<b>49,5%</b>
Ambohimasina	5	3	60,0%
Ankazomiriotra	18	7	38,9%
Antohobe	14	3	21,4%
Fidirana	33	4	12,1%
Inanantonana	15	7	46,7%
Soavina	14	5	35,7%
Vinany	6	0	0,0%
<b>Subtotal Midwest</b>	<b>105</b>	<b>29</b>	<b>27,6%</b>
<b>Overall total</b>	<b>394</b>	<b>172</b>	<b>43,7%</b>

#### b) Compost 7 days

7 days compost, as its name suggests, produces organic manure of very good quality for only seven (07) days. Generally, it is the farmers who do a lot of market gardening who adopt this technique. Indeed, the availability of rumen juice, being the essential constituent of the activator, limits the adoption of this technique in all areas of the project. In addition, this rumen juice can be used in the manufacture of the activator a few minutes after the slaughter of the zebu. This explains the fact that there are more peasants producing compost 7 days in the Highlands (presence of frequent killings and slaughtering of zebus) than in the Middle West. However, the activator can be stored and multiplied as needed. Thus, farmers in remote areas can try to acquire it to produce compost 7 days. For this year, the project has registered 33 new adopters in Compost 7d.

Table 19: Achievement on compost 7 days during year 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>30</b>	<b>15</b>	<b>50,0%</b>
Ambohimandroso	9	4	44,4%
Ampitatafika	7	5	71,4%
Antanifotsy	14	6	42,9%
<b>Subtotal Midwest</b>	<b>3</b>	<b>1</b>	<b>33,3%</b>
Ambohimasina	3	1	33,3%
<b>Total général</b>	<b>33</b>	<b>16</b>	<b>48,5%</b>

#### c) Compost 45 days

The manufacturing processes for Compost 45d are very similar to those for conventional compost, but with more frequent turning. In 2020, the project initiated 52 new adopters including 13 women (25%) to produce compost in 45 days.

Table 20: Achievement on compost 45 days from january to december 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>16</b>	<b>6</b>	<b>37,5%</b>
Ambohimandroso	14	6	42,9%
Andranomanelatra	2	0	0,0%
<b>Subtotal Midwest</b>	<b>36</b>	<b>7</b>	<b>19,4%</b>
Ambohimasina	12	3	25,0%
Ankazomiriotra	3	2	66,7%
Fidirana	2		0,0%
Inanantonana	10	1	10,0%
Vinany	9	1	11,1%
<b>Total général</b>	<b>52</b>	<b>13</b>	<b>25,0%</b>

#### d) Classic compost

Compared to other types of compost, conventional compost is much easier to make. However, the decomposition time of the constituent materials is longer (about 3 months). The materials needed to make them are available everywhere: dry and green materials mixed with cattle manure. This is why it is the most adopted organic manure improvement practice in the area. During this period, the project team supported 345 new adopters, including 133 women (or 38.55%) in the production of conventional compost.

Table 21: Achievement on classic compost in 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>173</b>	<b>73</b>	<b>42,20%</b>
Ambatolampy	1	1	100,00%
Ambohibary	19	11	57,89%
Ambohimandroso	2	0	0,00%
Ambohipihaonana	3	2	66,67%
Ampitatafika	16	4	25,00%
Andranomanelatra	67	33	49,25%
Antanifotsy	36	8	22,22%
Antsoatany	10	4	40,00%
Morarano	2	1	50,00%
Soamanandrarinny	17	9	52,94%
<b>Subtotal Midwest</b>	<b>172</b>	<b>60</b>	<b>34,88%</b>
Ambohimasina	2	2	100,00%
Ankazomiriotra	24	7	29,17%
Antohobe	64	26	40,63%
Fidirana	41	7	17,07%
Inanantonana	13	5	38,46%
Soavina	21	12	57,14%
Vinany	7	1	14,29%
<b>Total général</b>	<b>345</b>	<b>133</b>	<b>38,55%</b>

#### e) Recycled manure

In general, manures mixed with highly lignified litter are stored by producers in heaps in the open for an extended period. They are taken to the plot straight away when needed. This storage method has the following consequences:

- a loss in the quality of manure due to exposure to heat and rain (release of nitrogen into the atmosphere, leaching of fertilizing elements, destruction of useful microorganisms, etc.),
- incomplete and heterogeneous decomposition of manure;
- a risk of contamination of the plots during fertilization (source of weed seeds)

Manure recycling involves aerobic fermentation of the manure, such as during composting processes. Thus, park manure is stored in heaps and under shelters. It is necessary to arrogate them gradually without soaking them (risk of leaching of the fertilizing elements). Then, practice a regular turning (two weeks). The manure can be used after complete cooling. It is generally the farmers who have a relatively large number of cattle who adopt this practice. During this year, there were 12 new farmers initiated by the project team on this practice.

Table 22: Achievement on recycled manure in year 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>1</b>	<b>0</b>	<b>0,0%</b>
Andranomanelatra	1	0	0,0%
<b>Subtotal Midwest</b>	<b>11</b>	<b>5</b>	<b>45,5%</b>
Antohobe	6	2	33,3%
Fidirana	2	1	50,0%
Soavina	3	2	66,7%
<b>Total général</b>	<b>12</b>	<b>5</b>	<b>41,7%</b>

#### f) Liquid compost

As part of this practice, the project has promoted the experiences of the CEFFEL center in Andranobe / Antsirabe. It allows both to provide nutrients to the plots and to repel harmful insects. Liquid compost is a

mixture of 10kg green leaves (with biocidal and / or repellent plants), 5kg of farmyard manure in 100 liters of water. The whole will be stirred every two (02) days. The liquid compost will be ready after 15 or 21 days. Generally, the various liquid compost products are intended for market gardening, food legumes such as Cowpea, and shrub legumes such as Cajanus.

During year 2, 111 new farmers including 47 women (or 42.34%) were introduced by the project team to this technique.

Table 23: achievement on liquid compost during 2020

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>63</b>	<b>27</b>	<b>42,86%</b>
Ambatolampy	2	2	100,00%
Ambohibary	2	2	100,00%
Ambohimandroso	13	4	30,77%
Ambohipihaonana	4	1	25,00%
Ampitatafika	14	6	42,86%
Andranomanelatra	2	1	50,00%
Antanifotsy	2	2	100,00%
Antsoatany	13	3	23,08%
Morarano	11	6	54,55%
<b>Subtotal Midwest</b>	<b>48</b>	<b>20</b>	<b>41,67%</b>
Ankazomiriotra	16	9	56,25%
Antohobe	4	0	0,00%
Fidirana	2	1	50,00%
Inanantonana	4	1	25,00%
Soavina	3	2	66,67%
Vinany	19	7	36,84%
<b>Total général</b>	<b>111</b>	<b>47</b>	<b>42,34%</b>



Picture 8: Dadakoto vermicompost drying unit in Antemotra



Picture 9: Extension of a Vermicomposter at the Lead Farmer DANIEL in Antemotra

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

The principles of an improved barn are to install a roof over part or all of the zebu park, ensure that the floor is hard, make a manure collector and a manure pit. The project provided cash support around Ar 150,000 per barn for the benefit of interested breeders. In general, this contribution from the project is intended for the purchase of cements for the floor and the manure collector. The other necessary materials are the responsibility of the beneficiaries. They can promote local materials.

The objective of improving a barn is to improve the health of the cattle, while producing quality manure. In this sense, 63 breeders benefited from project support during this year.

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

Communes	Number of adopter	Woman adopting	% Woman adopting
<b>Subtotal Highlands</b>	<b>32</b>	<b>10</b>	<b>31,25%</b>
Ambohibary	2	0	0,00%
Ambohimandroso	4	1	25,00%
Ampitatafika	3	1	33,33%
Andranomanelatra	10	6	60,00%
Antanifotsy	6	1	16,67%
Antsoatany	1	0	0,00%
Morarano	5	1	20,00%
Soamanandrarinny	1	0	0,00%
<b>Subtotal Midwest</b>	<b>31</b>	<b>3</b>	<b>9,68%</b>
Ambohimasina	11	1	9,09%
Ankazomiriotra	10	1	10,00%
Antohobe	4	0	0,00%
Inanantonana	5	1	20,00%
Soavina	1	0	0,00%
<b>Total général</b>	<b>63</b>	<b>13</b>	<b>20,63%</b>



Picture 10 : Improvement of a stable with a grant from the project in Tsinjoarivo



Picture 11 : Improvement of a stable with a grant from the project in Inanantonana

#### V.1.4.4 Provide seeds of forage and food safety crop

During this year, 542 farmers including 274 women (50.6%) benefited from the orange-fleshed sweet potato lianas distributed by the project. These lianas are made up of 10 varieties all with orange flesh, namely: bora, donga, ekerewe, erica, irène, jane, kaly, menjy, ribany, sada and tosika. These are short-cycle varieties (production from 3 months), non-photoperiod, with tubers rich in vitamin A. They are one of the solutions to alleviate the problem of food insecurity.

In addition, as part of the improvement of milk production in the area, the project offers support in terms of making fodder seeds available. In total, the project distributed:

- 1.470kg of oats
- 485kg of Ryegrass,
- and, 10kg of fodder radish

234 farmers have been registered who have benefited from this type of seed. But other forage species should still be made available to dairy farmers at the start of the next quarter.

Table 25: Production in forage crops and orange-fleshed sweet potatoes in 2020

Communes	Forage crops		Orange-fleshed sweet potato	
	Number of plots	Area (ha)	Number of plots	Area (ha)
<b>Subtotal Highlands</b>	<b>212</b>	<b>25,6575</b>	<b>409</b>	<b>7,1565</b>
Ambatolampy	5	0,60	0	0,00
Ambohibary	0	0,00	12	0,10
Ambohimandroso	43	4,07	106	0,79
Ambohipihaonana	24	2,64	2	0,01
Ampitatafika	0	0,00	175	2,49
Andranomanelatra	73	12,71	28	0,39
Andravola	0	0,00	1	0,01
Antanifotsy	12	0,81	69	3,05
Antsoatany	38	3,26	3	0,03
Morarano	17	1,57	13	0,29
<b>Subtotal Midwest</b>	<b>27</b>	<b>1,22</b>	<b>544</b>	<b>10,06</b>
Ambohimasina	8	0,28	36	2,05
Ankazomiriotra	1	0,70	147	1,59
Antohobe	0	0,00	37	0,83
Fidirana	0	0,00	155	0,92
Inanantonana	16	0,21	43	0,51
Soavina	2	0,03	19	0,45
Vinany	0	0,00	107	3,71
<b>Total général</b>	<b>239</b>	<b>26,87</b>	<b>953</b>	<b>17,22</b>

In 2020, 768 farmers benefited from fodder seeds and / or orange-fleshed sweet potato cuttings in the project areas. That is 1,053 farmers from the start of the project to this stage. This corresponds to 53% of the final objective of the project.

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

In this activity, the project requested the support of specialized organizations such as APDRA. In the end, a collaboration agreement was signed with ATDRM / APDRA in order to strengthen the project team in the promotion of rice-fish farming. This agreement resulted in a diagnosis of the current situation of fish farming activities in the area; training sessions on rearing and growing fish (with setting up of demonstration sites); and finally, monitoring and supervision missions carried out regularly.

At the start of the year, the project supervised 05 fingerlings in order to make the fingerlings more accessible. The majority of these nurserymen were surprised by the difference in production compared to the extensive farming they previously practiced. However, the management of their production workshop can still be improved.

Table 26: List of fry producers and genitors producer

Zone	Name of fry producers	Location	Fokontany	Commune	Number of male genitors	Number of female genitors	Production (number of fry)
H.T	Razafindrakoto Emilson	Antemotra	Antemotra	Antanifotsy	5	6	6 200
H.T	Ranaivomanana Charles	Ambodiala	Ambatomainty	Ambohibary	5	4	21 000
M.O	Rabemanantsoa Gilbert	Ankily	Antampondravola	Fidirana	10	7	25 000
M.O	Rafalinirina Solomon	Morarano	Antanety	Soavina	3	6	12 000
M.O	Raharilalao Odette	Beronono	Beronono	Ankazomiriotra	5	3	5 000
<b>TOTAL</b>					<b>28</b>	<b>26</b>	<b>69 200</b>

However, the low rainfall in January and February 2020 was a major constraint when promoting this practice. In short, the fry were ready; but most of the rice fields were still dry. However, 304 farmers benefited from the 45,375 fry subsidized at half price by the project. But in total, the project supervised 316 enlargers including 74 women (23.4%). And, we found an average weight of 200g per fish in June-July 2020.

Table 27: Achievement in rice-fish culture during the 2019-20 crop year

Zone/ Commune	Nombre d'alevin	Nombre Adoptant	Adoptant femme	% adoptant femme
<b>H.T</b>	<b>20 080</b>	<b>88</b>	<b>30</b>	<b>34,1%</b>
Ambohibary	11 880	52	26	50,0%
Ambohimandroso	2 850	13	0	0,0%
Andranomanelatra	1 000	6	3	50,0%
Antanifotsy	4 100	16	1	6,3%
Morarano	250	1	0	0,0%
<b>M.O</b>	<b>27 875</b>	<b>228</b>	<b>44</b>	<b>19,3%</b>
Ankazomiriotra	4 625	37	10	27,0%
Antohobe	5 790	50	14	28,0%
Fidirana	10 330	95	12	12,6%
Soavina	4 380	22	2	9,1%
Vinany	2 750	24	6	25,0%
<b>Total général</b>	<b>47 955</b>	<b>316</b>	<b>74</b>	<b>23,4%</b>

In addition, it should be remembered that the diagnosis carried out by the ATDRM team revealed a problem of consanguinity of fish in the area. This is because the fry breeders have not renewed their parents for a very long time. Thus, the project introduced 93 broodstock in the area, including 60 males and 33 females. ATDRM coordinated this operation from fishing to the delivery of the carp spawners. There were 16 beneficiary fish farmers.



Picture 12: Delivery of carp broodstock to a nursery in Ambodiala - Ambohibary



Picture 13: Enlargement of fish in rice fields at Dadazily in Ankily - Fidirana

#### V.1.5 Purchase principal mean for upscaling activity

Table 28: Principal mean purchased or repaired for upscaling activity

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
<b>1.6.1</b>	<b>Purchase of Equipments</b>								
1.6.1.1	Purchase of motorcycles	Number of motorcycle	8	8	100%	0	0%	8	100%
1.6.1.2	Purchase of bicycles	Number of bicycles	50	50	100%	0	0%	50	100%
<b>1.6.2</b>	<b>Fuel and repairs</b>								
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	Number of Motorcycle use month	297	120	40%	96	32%	216	73%

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	Number of car hiring days	90	52	58%	21	23%	73	81%

## 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	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.1.1	Train Nurserymen/women	Number of Nursery men/women trained	50	61	122%	47	94%	72	144%

The actual training on the management of a nursery has already been carried out by agents of DREDD Vakinankaratra during year 2 of the project. But, in order to ensure the quality of the young plants produced, the 47 nurserymen who collaborate with the project this year have been monitored by DREDD. This support mission lasted for 07 days. And each nurseryman has received recommendations to improve their practices.

In short, since the start of the project, a total of 72 nurserymen have already worked with the project in the production of young forest plants. This corresponds to 144% of the final objective of the project.



Picture 14 : Recapping of the planting pots by members of the Fanilo Cooperative in Amparihy



Picture 15 : Nursery monitoring by the central GSDM team

## V.2.2 Train lead farmers and farmers in CSA

Table 30: Achievements on lead farmers and farmers training

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.2.1	Train Lead farmers (by project Technicians and other stakeholders)	Number of Lead farmers	50	74	148%	51	102%	82	164%
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)	Intervention of Lead farmers (man-day)	12 600	4 846	38%	4 252	34%	9 098	72%
	Training of adopters	Number of participants	5 000	2 909	58%	1 554	31%	4 463	89%

In November 2020, two training sessions for peasant leaders were organized in the meeting room of DRAEP Vakinankaratra. Each session lasted 02 days: November 19-20 for lead farmers in the Middle West; and 26-27 for those in the Highlands. Three themes were developed during each session: techniques for preserving and processing fruits and vegetables; advice on family farming (family budget); and regulatory texts in fish farming. Finally, the project technicians also make practical adjustments to the practices disseminated.

Since the start of the project, 82 leader farmers have already benefited from various training courses from the project. This corresponds to 164% of the final objective of the project.

In addition, as part of the application of the "farmer to farmer" approach, the leading farmers are required to organize training sessions at their CEP or other nearby farms. During this period, 113 sessions were held in all project areas; and 1,554 participants including 741 women (47.7%) were able to attend.

Table 31: training of farmers in 2020

Zones et communes d'intervention	Nombre de session	Nb Participant	Nb Women	% Women
<b>H.T</b>	<b>47</b>	<b>697</b>	<b>332</b>	<b>47,6%</b>
Ambatolampy	6	73	28	38,4%
Ambohibary	3	68	45	66,2%
Ambohimandroso	4	51	17	33,3%
Ambohipihaonana	11	132	77	58,3%
Ampitatafika	2	62	24	38,7%
Andranomanelatra	3	58	19	32,8%
Andravola	7	95	32	33,7%
Antanifotsy	1	15	5	33,3%
Antsoatany	3	57	27	47,4%
Morarano	7	86	58	67,4%
<b>M.O</b>	<b>66</b>	<b>857</b>	<b>409</b>	<b>47,7%</b>
Ambohimasina	4	45	27	60,0%
Ankazomiriotra	8	90	34	37,8%
Antohobe	17	277	153	55,2%
Belanitra	1	10	4	40,0%
Fidirana	18	177	57	32,2%
Soamanandrarinny	2	47	38	80,9%
Soavina	14	161	69	42,9%
Vinany	2	50	27	54,0%
<b>Total général</b>	<b>113</b>	<b>1554</b>	<b>741</b>	<b>47,7%</b>



Picture 16 : Training of lead farmers on a family budget (advice to family farms) by agents of the DRAEP Vakinankaratra



Picture 17 : Training of lead farmers on the techniques of conservation and processing of fruits and vegetables by agents of DRAEP Vakinankaratra

## V.2.3 Train secondary school students in CSA

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

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.3.1	Make Diagnosis to select beneficiary schools	Number of diagnosis to select beneficiary schools	1	1	100%	0	0%	1	100%
		Number of selected schools	12	12	100%	0	0%	12	100%
2.3.2	Organize Events (Commitment charte event, Tools delivery)	Number of Event	2	2	100%	0	0%	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%	0	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%	1	33%	4	133%
2.3.5	Training Tools (tarpauling, booklet, teacher guideline, langage-photo) - 6 new schools	Number of training tools pack	1	1	100%	2	200%	3	300%
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	Number of communication tools pack	2	1	50%	0	0%	1	50%
2.3.7	Produce Film for communication	Number of film for communication produced	1	0	0%	0	0%	-	0%
2.3.8	Produce Cartoon strips for school children	Number of cartoon strips produced for school children	1	0	0%	1	100%	1	100%
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	Number of demonstration plot	12	12	100%	12	100%	12	100%
2.3.10	Accompany students in the implementation	Number of school children trained	6 000	4 942	82%	3 205	53%	8 147	136%
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	Number of competition organized of best school	1	0	0%	0	0%	-	0%
2.3.12	Exchange visits between School	Number exchange visits between School	3	6	200%	12	400%	18	600%
		Number of participants to the exchange visits between school	300	161	54%	345	115%	506	169%
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	Number annual workshop days	3	2	67%	1	33%	3	100%
2.3.14	Car hiring for training, monitoring and other actions for secondary school	Number of car hiring days	60	31	52%	14,0	23%	45,2	75%

### V.2.3.1. Teacher training carried out in 2020

From February 5 to 8, 2020, a training session for the benefit of certain teachers chosen by the CEG Betafo, CEG Ankazomiriotra and CEG Vinany was facilitated by the team of the central GSDM and the OEMC. The three (03) sessions provided for in the project document have already been carried out. But, we organized this special session to replace the trained teachers of CEG Ankazomiriotra and Vinany who were assigned to other regions; and to strengthen teachers in the CEG Betafo, which has a large number of 6th and 5th year classes. This training was carried out at the CEG Betafo for the first three (03) days, before concluding with a visit to the farms supervised by the project along the RN34 axis and to the Ivory training site.

Table 33: Teacher training carried out at the CEG Betafo in February 2020

Etablissement	Cisco	Nombre d'enseignants formés
CEG Vinany	Mandoto	2
CEG Ankazomiriotra	Mandoto	2
CEG Betafo	Betafo	17
<b>TOTAL</b>		<b>21</b>

#### V.2.3.2. Production of an animated 3D film for schoolchildren

As planned in the project document, a 3D animated film based on the contents of the playbook was produced. It was produced by NOG'ONE. In February 2020, the Nog'One team presented, for validation by the GSDM Board of Directors, the characters of the film in 3D (appearance and voice). Then, a provisional version was submitted to the CA for validation at the end of June. On October 09, 2020, the official release of the film entitled "Agro-ecology for future generations" was made at the Analakely MFI. In addition, following the request of the Region and the DREDD of Vakinankaratra, another screening of this animated film was made at the Tranompokonolona of Antsirabe on November 5, 2021. Apart from the other partners, the 12 schools supervised by the project received the film in electronic format on a CD.

#### V.2.3.3. Accompany students in the implementation

The pupils in the 6th and 5th class (and 4th for the CEG Ihazolava) are the targets of this approach. These students receive both theoretical classroom training and practical training on the application plots. The teachers trained by the GSDM and the OEMC are primarily responsible for this training. For this agricultural campaign, 3,205 students benefited from the introduction of agroecology in schools.

Table 34: Number of students trained in 2019/2020

Etablissement	Cisco	6th grade	5th grade	4th grade	Total
CEG Ihazolava	Ambatolampy	180	95	48	323
CEG Ambohimandroso	Antanifotsy	190	176		366
CEG Ampitatafika	Antanifotsy	57	122		179
Lycée Privée Loterana - Antanifotsy	Antanifotsy	21	29		50
CEG Antsoatany	Antsirabe II	113	110		223
CEG Tsaramasoandro - Antokofoana	Betafo	160	87		247
<b>Sous-total ECOLE MANITATRA</b>		<b>721</b>	<b>619</b>	<b>48</b>	<b>1388</b>
CEG Vinany	Mandoto	152	74		226
CEG Ankazomiriotra	Mandoto	161	98		259
CEG Betafo	Betafo	365	514		879
CEG Annexe Alakamisy Anativato	Betafo	110	128		238
Collège Privé AINA	Antsirabe II	25	24		49
CEG Vinaninkarena	Antsirabe II	95	71		166
<b>Sous-total ECOLE PAPAM</b>		<b>908</b>	<b>909</b>	<b>0</b>	<b>1817</b>
<b>TOTAUX</b>		<b>1629</b>	<b>1528</b>	<b>48</b>	<b>3205</b>

The installations at the level of the application plots of the 12 schools supervised by the project were all carried out at the beginning of December 2020. The works constitute a practice for the pupils. The latter were supervised by trained teachers and project technicians.

#### V.2.3.4. Exchange visits between School

The 12 schools supervised by the project were each able to participate in exchange visits in the project activity areas, and in particular at school level. Representatives of teachers, students and parents of students totaling 345 people (52.5% female) took part.

Table 35: Exchange visits between schools carried out in 2020

Sessions de groupe/ Commune	Nombre de session	Nb Participant	Nb Women	% Women
<b>H.T</b>	<b>8</b>	<b>232</b>	<b>126</b>	<b>54,3%</b>
CEG Ambohimandroso	1	30	20	66,7%
CEG Ambohipihaonana	1	30	17	56,7%
CEG Ampitatafika	1	30	12	40,0%
CEG Antsoatany	1	30	17	56,7%
CEG Tsaramasoandro/ Antokofoana	1	30	14	46,7%
CEG Vinaninkarena	1	30	14	46,7%
Collège privé AINA Vinaninkarena	1	22	11	50,0%
Lycée Privé Loterana Antanifotsy	1	30	21	70,0%
<b>M.O</b>	<b>4</b>	<b>113</b>	<b>55</b>	<b>48,7%</b>
CEG Ankazomiriotra	1	29	12	41,4%
CEG Annexe Alakamisy Anativato	1	26	12	46,2%
CEG Betafo	1	27	15	55,6%
CEG Vinany	1	31	16	51,6%
<b>Formation Adoptants</b>	<b>12</b>	<b>345</b>	<b>181</b>	<b>52,5%</b>



Picture 18: Testimony of students during the workshop to review activities at school level supervised by the project as part of the introduction of agroecology in schools



Picture 19: Official release of the 3D animated film "Agroecology for future generations" at Tranompokonolona Antsirabe

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

Table 36: Achievement for training sessions on CSA for development actors

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	Number of participants from development actor trained	60	0	0%	0	0%	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	2 400	1 544	64%	594	25%	2 138	89%
2.4.3	Car hiring during training sessions (6 days per session)	Number of car hiring days	18	0	0%	0	0%	-	0%

The GSDM has already carried out training sessions for local development actors, farmer organizations, NGOs and agricultural input suppliers, but within the framework of the PAPAM project. However, within the framework of MANITATRA 2, another training session is planned in 2021.

In 2020, visits to the Ivory site, application plots, schools and Manitra 2 project farmer's plots were carried out regularly. But like all other activities requiring a gathering of people, this activity was also interrupted by the outbreak of Covid-19 in Madagascar. Thus, 594 visitors were registered on the GSDM site in Ivory during this year: regional decision-makers, technicians, researchers, students, teachers, trainers, parents of students, journalists, photographer, and farmers.



Picture 20 : Exchange visit of TFNAC members to the GSDM training site in Ivory

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

Table 37: Achievements for DGM involvement

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.5.1	Organize Information/sensitization of local stakeholders	Number of local stakeholders sensitized on Climate change by regional Meteorology officer	3	1	33%	1	33%	2	67%
2.5.2	Organize Training workshop for local stakeholders	Number of training workshop session	3	0	0%	0	0%	-	0%
		Number of participants trained on Climate Change and information bulletins	75	0	0%	0	0%	-	0%
2.5.3	Provide regional Meteorological information bulletins (quarterly)	Number of information bulletins provided	800	103	13%	370	46%	473	59%
2.5.4	Provide per-diem for meteorological officer	Number of METEO officer man-day intervention	12	6	50%	14	117%	20	167%

In this context of climate change, valuing agro-meteorological information is very important in order to adapt interventions in agricultural development. For this, a collaboration agreement was signed between the GSDM and the Regional Meteorological Service (branch of the Inter-Regional Directorate of Transport, Tourism and Meteorology).

On February 12, 2020, an awareness workshop was held with the SRM / DIRTTM of Vakinankaratra for the benefit of farmers' organizations, CDRs, CirAEP officials, local partners, and project technicians. 40 participants, including 10 women (25%) attended this session.

In addition, three (03) quarterly agrometeorology bulletins were prepared with the SRM / DIRTTM of Vakinankaratra during this year. But, the Head of Meteorology Service of Vakinankaratra who was the agent designated by the DIRTTM Vakinankaratra-Amoron'i Mania as the interlocutor of the project was assigned to another Region. This event did not allow the development of the agro-meteorological bulletin October-November-December 2021. Thus, 370 bulletins were distributed to individuals / rural development organizations.

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

Table 38: Achievements by involving MAEP and MEDD

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.6.1	Organize field collaboration and exchange by MPAAE + MEDD	Number of mission	3	0,0	0%	0	0%	-	0%
2.6.2	Organize field collaboration and exchange by regional directorates ( DRAEP + DREDD)	number of signed agreements	2	0,0	0%	2	100%	2	100%

In June 2020, monitoring missions for Manitra 2 project activities were carried out by agents from the DRAEP Vakinankaratra. These missions are within the framework of the collaboration agreement that we have established with the DRAEP Vakinankaratra. In order to revitalize the collaboration between project technicians and DRAEP agents at the level of each district, these visits were made by the team from each district or CirAEP. The visits took place over two (02) days for each Circumscription. In addition, the technicians prepared a tour circuit allowing to see the majority of the project activities, so that the DRAEP agents could have a general overview of the agro-ecological practices disseminated.

Then, in November 2020, two training sessions for peasant leaders were organized in the meeting room of the DRAEP Vakinankaratra. The animation was provided by DRAEP agents. Each session lasted 02 days: November 19-20 for lead farmers in the Middle West; and 26-27 for those in the Highlands. Three themes were developed during each session: techniques for preserving and processing fruits and vegetables; advice on family farming (family budget); and regulatory texts in fish farming.

In addition, the agents of the DREDD Vakinankaratra carried out monitoring missions of the reforestation carried out by the project. These took place over 07 days; ie one day for each technician zone. At the end of this mission, the DREDD issued a certificate for the reforestation carried out since the start of the project.

Picture 21: Reforestation certificate issued by DREDD Vakinankaratra to GSDM



Finally, DREDD agents in each of the 05 project intervention districts carried out several support missions to 47 nurserymen providing project services. The objective is to support the nurserymen in order to cover the needs of young forest plants of the project. But it was also an opportunity for DREDD agents to retrain from the training they carried out during the 2019-2020 campaign.

#### V.2.7 Participate to CSA integration into public policies

*Table 39: Achievements on advocacy through workshop participation*

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)	Number of workshop on CSA in which the GSDM take part	3	2	67%	1	33%	3	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	3	1	33%	0	0%	1	33%

On December 16 and 17, the GSDM organized a "Research and Development Interface" workshop. The aim of the workshop was to put research organizations and those working in the dissemination of innovations on the same table in order to optimize the interventions of each. But we also invited farmers so that they could relate the context in which they find themselves, their constraints and their visions on the work of each of the organizations.

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

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
3.1.1	Organize awareness raising on Climate Change targeting development actors as farmers organizations, NGO, local service provider	Number of session for awareness raisins on climate change	3	0,0	0%	0	0%	-	0%
		Number of participants informed on Climate Change framework	90	0,0	0%	0	0%	-	0%
3.1.2	Car hiring during training sessions (2 days per session)	Number of car hiring days	6	0,0	0%	0	0%	-	0%

In the MANITATRA 2 project document, the GSDM proposed to conduct 03 awareness workshops for local development actors, farmer organizations, NGOs and agricultural input suppliers. Disturbed by the outbreak of Covid-19 in Madagascar, this activity could not be organized in 2020. However, as part of MANITATRA 2, a session is planned in 2021.

#### V.3.2 Participate to sharing experiences at the regional level (COMESA and other regions) integrating political actors and development actors

Table 41: Awareness raising realized at the regional level

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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	1	0,0	0%	0	0%	0	0%
		Number of exchange visits participants	5	0,0	0%	0	0%	0	0%

The organization of this exchange visit will depend on the evolution of the health crisis linked to Covid-19.

#### V.3.3 Support FOs to maintain continuous exchange with FDA and FDAR in order to make a link between farmers and agricultural services

Table 42: Activity for permanent link with FDA and FDAR

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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%	2	200%	3	300%
3.3.2	Ensure Permanent exchange with FDAR (state promoted development device in regional level) in order to	Number of concerned FDAR	1	1	100%	0	0%	1	100%
		Number FOs benefiting finance from FDAR	90	0	0%	5	6%	5	6%

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
	make a link with government development orientation								

As part of a project named "FANDROSO" for a duration of 03 years (RINDRA Program), the FDA Vakinankaratra has funding from the European Union. Thus, the Project-FDA and Project-Farmer Groups consultations accelerated significantly during this period.

At the beginning of October 2020, 58 funding requests put together by farmer organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agro-ecology have benefited from FDA funding: 02 rice-fish farming projects, 02 rain-fed rice farming projects, and 01 dairy cow breeding project.

Table 43: Micro-projects of FOs supervised by the project having received a favorable opinion for funding after the CROA session - FDA Vakinankaratra

N° demande	Name of the project leader	Project title	Total project amount (MGA)	FDA grant	District	Observation
178/20	NARINDRA	Sustainable rice-fish farming (in agro-ecology)	8 892 400	8 075 400	BETAFO	Under implementation
179/20	MITSIRY	Rainfed rice cultivation following agro-ecological practices	10 495 600	9 512 600	BETAFO	Under implementation
181/20	LOVASOA	Sustainable rice-fish farming (in agro-ecology)	11 496 400	10 411 400	BETAFO	Under implementation
194/20	MAMIRATRA	Rainfed rice cultivation following agro-ecological practices	6 954 400	6 275 400	ANTSIRABE II	Under implementation
195/20	TANTSAHA MIAVOTRA	Sustainable rice-fish farming (in agro-ecology)	5 026 800	4 572 800	BETAFO	Funding planned for 2021
198/20	LOVASOA	Rainfed rice cultivation following agro-ecological practices	9 975 600	9 034 600	BETAFO	Funding suspended
203/20	FITIA	Application of agroecology in dairy farming	16 318 100	15 428 600	ANTSIRABE II	Under implementation

#### V.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

Table 44: Number of concertation with CSA<sup>2</sup> realized during 2020

	Planned Activities	Indicator	Project targets	Previous Achievement (Year 2018)		Achievement of the Year 2019		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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	5,0	83%	0	0%	5	83%

Currently, CSAs in Vakinankaratra Region have become agricultural service providers. Thus, the CSA / FDA development mechanism as described in the project document has changed.

<sup>2</sup> CSA : Agricultural Service Center

### V.3.5 Support FOs on their collaborative contracting with various partners

Table 45: Activities for supporting collaborative contract with various partners

	Planned Activities	Indicator	Project targets	Previous Achievement (Year 2018)		Achievement of the Year 2019		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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	30	0,0	0%	0	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	30	0,0	0%	0	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	30	0,0	0%	0	0%	-	0%

As a reminder, the main objective of these activities is to ensure that POs can benefit from the services of local providers and agricultural services in general through the permanent linkage with the CSAs of the five (5) affected districts. by the project namely Antsirabe II, Antanifotsy, Ambatolampy, Betafo and Mandoto. The effective operationalization of the FDA Vakinankaratra is a key point that has enabled the project to propose 58 micro-projects in agroecology for funding. So far, 05 micro-projects have secured funding from FDA Vakinankaratra, and are currently being implemented.

As part of the promotion of rice-fish farming, an agreement with ATDRM / APDRA was signed to strengthen the project team. At the end of this campaign, we set up two (02) fry demonstration sites and two (02) other sites for the grow-out of fish in rice fields.

Then, the project with the help of ATDRM, supervised 05 nurserymen and 316 farmers who practiced fattening in rice fields.

In addition, it should be remembered that the diagnosis carried out by the ATDRM team revealed a problem of consanguinity of fish in the area. This is because the fry breeders have not renewed their parents for a very long time. Thus, the project introduced 93 broodstock in the area, including 60 males and 33 females. ATDRM coordinated this operation from fishing to the delivery of the carp spawners. There were 16 beneficiary fish farmers.

On the other hand, the GSDM and the Fifamanor have signed a partnership agreement for the implementation of activities for the benefit of breeders under the MANITATRA 2 project. The general objective of this collaboration is to improve milk production in the Vakinankaratra Region, in order to diversify and increase the resources of family farms and to contribute to the national objectives of food security and sustainable development.

Thus, to begin its intervention, on April 22, 23, 24 and 28, 2020, Fifamanor also carried out a diagnosis of the existing dairy farming in the project areas. In the field, he thought particularly about the composition of the herd, the feeding system and the forage areas used, the habitat of dairy animals, the problems encountered in dairy farming, expectations and training desired by breeders. The results of these diagnostics can be summarized as follows:

Table 46: Summary of diagnostic results carried out by FIFAMANOR

DESIGNATIONS	OBSERVATIONS
Composition of the herd	<ul style="list-style-type: none"> <li>* On average 1.5 dairy cows per farm.</li> <li>* ☐ Race mainly mixed race exotic race</li> </ul>
Feeding system and forage areas used	<ul style="list-style-type: none"> <li>* Use of grass collected in significant proportion</li> <li>* Unbalanced ration (low use of concentrates)</li> <li>* Forage crops not proportional to the size of the herd</li> <li>* Optimization of food resources</li> <li>* especially in the off-season</li> </ul>
Dairy animal habitat	* En majeure partie hors norme
Problems encountered in dairy farming	<ul style="list-style-type: none"> <li>* Insufficient food</li> <li>* ☐ Difficult access to inputs and feed</li> <li>* ☐ No mastery of heat detection</li> <li>* ☐ Insufficient technical access to animal health</li> </ul>
Expectations and desired training	<ul style="list-style-type: none"> <li>* Breeding management</li> <li>* Forage crops</li> <li>* Forage conservation</li> <li>* Heat detection</li> <li>* Reproduction management</li> <li>* Milk processing</li> </ul>

Then, on May 28 and 29, 2020, a two (02) day training course on feeding dairy cows took place at the FIFAMANOR center. The seven (07) technicians and the two (02) agronomists of the project are the beneficiaries. Another session on other aspects of breeding management (breed improvement, hygiene and milk quality, basic concepts in animal health, technical and economic management of a farm, etc.) should be organized later.

Finally, four (04) fodder crop demonstration sites have been set up in Ambohimandroso, Andranomanelatra, Antemotra and Soavina.

Table 47: Forage crop demonstration sites installed with FIFAMANOR

Commune	Counter season 2020 (are)		Rainy season 2020/2021 (are)			
	Oat	Radish	Chloris gayana	Pennisetum purpureum Relaza	Brachiaria brizantha marandu	Juncao
Ambohimandroso	4	2				
Antanifotsy			2	2	2	
Andranomanelatra	4	1	2		1	1
Soavina	1	1	2	2	2	

## V.4 Communication and visibility

### V.4.1 Visibility and communication events organization

Table 48: Achievements on visibility and communication events organization

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
4.1.1	Organization of regional field days targeting government authorities and development actors	Number of regional field days	1	0	0%	1	100%	1	100%
		Number of participants (Authorities, donors, local stakeholders, lead farmers, researchers, development actors, unions farmer and journalist)	150	0	0%	167	111%	167	111%
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	Number of streamer	6	2	33%	1	17%	3	50%
		Number of roll up	6	1	17%	3	50%	4	67%
4.1.3	Car hiring for all communication and visibility action	Number of car hiring days	60	1	2%	31	52%	32	53%

On March 19 and 20, 2020, two (02) agro-ecology days were organized by the GSDM in the Vakinankaratra Region. A day and a half was devoted to visits to the achievements of the project. While the remaining half-day had made it possible to make a restitution in the room. These agro-ecology days were organized to strengthen advocacy actions in Agro-ecology at the national level. 167 people participated in this event; of which:

- representatives of the Ministry of Environment and Sustainable Development (MEDD), representatives of the Ministry of Agriculture, Livestock and Fisheries (MAEP);
- representatives of the Ministry of National Education and Technical and Vocational Education (MENETP);
- representatives of the Ministry of Transport, Tourism and Meteorology); representatives of local authorities (Vakinankaratra Region);
- representatives of the branches of the ministry (DRAEP, DRENETP, DREDD);
- local partners (CASEF project, PAPAM project, AGRIVET, VERAMA, FIFAMANOR, WHH, CFFAMMA, FIFATA, GIZ, FOFIFA, ATASEF project, AKF-OSDRM, GRET, APDRA, MALTO, Conservation International, AVSF, FDA Vakinankaratra...);
- representatives of each of the 12 schools supervised by the project (teachers, pupils and parents of pupils);
- journalists;
- and, the GSDM team,

### V.4.2 Publications and broadcasting

Table 49: Communication activities related to publications and broadcasting

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
4.2.1	Broadcasting on national TV	Number of TV broadcasting	2	2	100%	5	250%	7	350%
4.2.2	Broadcasting on national Radio	Number of Radio broadcasting	30	16	53%	12	40%	28	93%

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
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 5 events)	120	35	29%	30	25%	65	54%
		Number of newspapers' publication	8	10	125%	5	63%	15	188%
		Number of publication type (online & social media)	2	6	300%	22	1100%	28	1400%
		Number of TV events broadcasting	6	5	83%	11	183%	16	267%
		Number of Radio events broadcasting	6	5	83%	6	100%	11	183%

GSDM worked with the E-see Magazine team to produce five (05) films on the following themes:

- the two (02) days of agro-ecology of Vakinankaratra
- vermicompost manufacturing techniques,
- Conservation Agriculture to fertilize the soil,
- reforest for future generations,
- and, "Ady Gasy" or biological control to prevent diseases and insects.

These films were shown a few times on national television (TVM) as part of the E-see Magazine show. Currently, there is an increase in solicitation from people who have been able to watch this program. There are those in the project areas who come to the office in Antsirabe, or make direct contact with the technicians in the field. But there are also people from outside the Vakinankaratra Region who ask for advice over the phone.

Then, the GSDM participates each month in the program "FIVOHY" on the national radio (RNM). This program also helps to strengthen awareness-raising actions on agroecology issues in this context of climate change.

Then, during the two (02) days of agroecology in the Vakinankaratra Region, 14 journalists provided media coverage of the event. Two (02) journalists wrote an article: Midi Madagascar and Gazetiko. The Canal News has published three (03) articles online. And, two (02) reports were produced by journalists from TVM and RNM.

Finally, during the preview of the 3D animated film "Agro-ecology for the future generation" and the workshop to review activities at the level of the 12 schools supervised by the project, media coverage was successively ensured. by 06 and 10 journalists.

#### V.4.3 Documentaries conception and edition

Table 50: Activities of documentaries conception and edition

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
4.3.1	Edition documents and tools for technicians and farmers	Number of document and tools pack edited	1	1	100%	1	100%	2	200%
4.3.2	Editing of films for each project events	Number of films	5	1	20%	5	100%	6	120%
4.3.3	Capitalization leaflets	Number of capitalization leaflets	1	1	100%	0	0%	1	100%

As we have already mentioned before, a film on the two (02) days of agro-ecology in the Vakinankaratra Region and four (04) technical films (the manufacture of vermicompost, Conservation Agriculture to fertilize the soil, reforest for future generations, and "Ady Gasy" or biological control to prevent diseases and insects) were produced in collaboration with the E-see Magazine team.

In addition, three other technical films are currently being shot: rice-fish farming, dairy farming and conservation agriculture. Note that notebooks of Purchase Vouchers for young plants were published in December 2020 to avoid monetary circulation during the reforestation processes promoted by the project.

## V.5 Project administration (human and equipment)

### V.5.1 PMU officials recruited

Table 51: PMU staff recruited

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
5.1.1	National Technical Assistant (Project Leader)	Months	33	16	47%	12	36%	27,5	83%
5.1.2	Assistant of project leader	Months	33	15	45%	12	36%	27,0	82%
5.1.3	Technician Agroecology (Highlands + Middle West) (6 technicians)	Months	198	93	47%	72	36%	165,0	83%

Two project technicians resigned at the end of 2020. The technician based in Ambatolampy (Hautes Terres) and Inanantonana (Middle West). The project has already recruited their replacement.

### V.5.2 GSDM Backstopping fully implemented by his key staff

Table 52: GSDM backstopping

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
5.2.1	Director (2 months per year)	Months	6	3	50%	2,0	33,3%	5,0	83,33%
5.2.2	Agronomist (2 months per year)	Months	6	3	50%	2,0	33,3%	5,0	83,33%
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Hasina)	Months	12	6	50%	4,0	33,3%	10,0	83,33%
5.2.4	Agro economist (2 months per year)	Months	6	3	50%	2,0	33,3%	5,0	83,33%
5.2.5	Communication Officer (2 months per year)	Months	6	3	50%	2,0	33,3%	5,0	83,33%
5.2.6	Agronomist Vakinankaratra (2 months per year)	Months	6	3	50%	2,0	33,3%	5,0	83,33%

This year, backstopping was very disturbed by the crisis linked to Covid-19. For a while, it was not possible for the central GSDM team to come to Antsirabe. However, videoconference meetings have been multiplied in order to coordinate the actions carried out in the field.

### V.5.3 Local missions

Table 53: DSA for GSDM and project staff

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
5.3.1	Per-diem for GSDM national staff	Days	600	190	32%	160	27%	350	58%
5.3.2	Per-diem for local staff	Days	300	92	31%	63	21%	155	52%

## V.5.4 Mean and equipment implementation

Table 54: Mean and equipment

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
<b>5.4.3</b>	<b>Offices renting and communication</b>							-	
5.4.3.1	Regional office renting	month	36	17	47%	12	33%	29	81%
<b>5.4.4</b>	<b>Equipments</b>								
5.4.4.1	PC/laptop	Unit	4	3	75%	2	50%	5	125%
5.4.4.2	Printers/scanner/photocopiers	Unit	2	2	100%	0	0%	2	100%
5.4.4.3	Digital camera	Unit	2	2	100%	0	0%	2	100%
5.4.4.4	Video-projectors + screens	Unit	2	2	100%	0	0%	2	100%
5.4.4.5	Hard disks	Unit	1	1	100%	0	0%	1	100%
5.4.4.6	Other equipments (flat rate per technician)	Per technician	6	6	100%	0	0%	6	100%
5.4.4.7	Communication/courier and other coordination expenses	Unit	3	3	83%	1	33%	4	117%
<b>5.4.5</b>	<b>Spare parts for hard ware and other office machineries</b>							-	
5.4.5.1	Spares (hard ware, photocopiers etc.)	year	3	2	67%	1	17%	3	83%

## V.6 Project oversight

### V.6.1 Steering committee

Table 55: Steering committee planning

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
6.1.1	Steering committee establishment	Steering committee established	1	1	100%	0	0%	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	3	1	33%	1	33%	2	67%

On September 24, 2020, a meeting with the member of the project steering committee was organized at the Hotel Le Pavé in Antaninarenina / Antananarivo. The points exchanged during this meeting are:

- the approval of the COPIL Minutes dated August 13, 2019;
- examination of the Activity Report, Year 2;
- the year 3 AWPB review of the MANITATRA 2 project

The members of the steering committee present during this meeting are made up of:

- Mr. Lantonirina RAMAROSON, Director General of Agriculture and Chairman of the Steering Committee of the MANITATRA 2 project,
- Dr Jacqueline RAKOTOARISOA, Scientific Director of FOFIFA and Chairman of the Board of Directors of GSDM,
- Mr. Herrick ANDRIAMITAHA, member of the Cabinet of the Ministry of Environment and Sustainable Development, member of the Cabinet of the Ministry of Agriculture, Livestock and Fisheries,
- Mrs. RAKOTOARISAONA Mitia, Regional Director of Agriculture, Livestock and Fisheries-Vakinankaratra,
- Mrs. Tojotsara RATEFASON, Regional Director of Environment and Sustainable Development,
- Mr. Paulin HYAC, AVSF Coordinator and Vice-Chairman of the GSDM Board of Directors,
- Mr. Nicolas RAZAFIARISON, Director of Economic and Social Development, representing Mr. The Governor of the Vakinankaratra Region

### V.6.2 Monitoring and Evaluation of the project

Table 56: Monitoring and evaluation program

	Planned Activities	Indicator	Project targets	Previous Achievement		Achievement of the Year 2020		Cumulative achievements	
				Achievement	%	Achievement	%	Achievement	%
6.2.1	Base line study through external expertise	One base line study	1	1	100%	1	100%	2	200%
6.2.2	Financial auditing	Financial auditing (one per year by COMESA)	3	1	33%	0	0%	1	33%
6.2.3	Bi-annual reportings	Semestrial report (1st : 1 per year)	3	2	67%	0	0%	2	67%
6.2.4	Annual reportings	Annual report (including semestrial 2 report)	3	1	33%	2	67%	3	100%
6.2.5	Mid-term evaluation through external expertise	One Mid-term evaluation	1	0	0%	1	100%	1	100%
6.2.6	Final evaluation through external expertise	One Final evaluation	1	0	0%	0	0%	-	0%
6.2.7	Car hiring for monitoring and evaluation	Number of car hiring days	90	0	0%	11	12%	11	12%

It should be remembered that at the start of the MANITATRA 2 Project, the GSDM called on "GEOSYSTEMS & Development" consultancies to establish the baseline situation of the intervention area. A consultancy contract was therefore signed on 09/10/2018 for the execution of this expertise. Unfortunately, the latter did not carry out their mission in accordance with the clauses of the contract (personal replacement, delay) and the requirements of the ToRs (methodology and aberrant results). As a result, the report he provided was not

approved by the GSDM Board of Directors as the basis for Project evaluation. At this time, redoing the baseline situation from the start of the Project by means of a survey appears inadequate despite the need for a baseline document. That is why, as an alternative, the GSDM has established an internal baseline. The starting point being the census, made at the beginning of the project, by the local team among the farmers who practiced conservation agriculture during MANITATRA 1. And, to complement it on the basis of several socio-economic surveys of agricultural households in Region of Vakinankaratra and cross-checking with the information collected from development actors in the Region.

In addition, following the call for expressions of interest launched by the GSDM on July 2, 2020 and the evaluations of the offers, the RIVO RABARIJOHN Consulting Group was mandated by the GSDM for the mid-term evaluation of the MANITATRA project. 2. A provisional version of the study has already been submitted to the GSDM Board of Directors for validation on December 22, 2020.

## VI- LESSONS AND CHALLENGES

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### VI.1 Lessons learned from this first six months

During this year 2020, the performance of Mucuna-based systems has been confirmed. Indeed, on a plot with a good biomass of Mucuna the preparation before the installation of the rice is much easier. There are no weeds. So planting without tillage is possible. In addition, rice plants resist much longer during a rainfall hole compared to conventional systems. Finally, the increase in rice yield is palpable from the first year on cover.

Regarding the Upland Rice + Cajanus association, it was noted that the installation period of the Cajanus should not be the same in the Highlands as in the Middle West of Vakinankaratra. In the Middle West, the Cajanus installed after the second rice weeding (end of January - mid-February) gives good biomass after the rice harvest. On the other hand, on the Highlands where it is much colder, the Cajanus plants remain puny and without biomass if it is installed during this period. Observation on a few plots allows us to suggest dressing the rice plots after the first weeding (mid-January). This system is very interesting: natural tillage and good biomass.

In addition, we have seen the positive effects of exchange visits on the dissemination of innovative techniques. At the start of 2020, the rainfall was very uncertain. And during the exchange visits, the participants were able to appreciate the adaptation of Conservation Agriculture systems in this context. Immediately, the project team collected just under two (02) tonnes of Mucuna seed. In addition, there are also many farmers who have started making vermicomposters (windrows) after these exchange visits; while knowing that decomposer worms are not yet available.

In addition, the installation of living hedges is starting to interest many farmers. This practice makes it possible to limit runoff. It also offers biomass for composting or cattle feed during the dry season. But it also allows to materialize the boundaries of the plots. On the project side, the live hedges enhance visibility. Indeed, they are beginning to mark the landscape in the project intervention areas. And on the Highlands, people recognize the intervention areas of the MANITATRA 2 project by the presence of hedges on plots.

Finally, the association of Acacia mangium with food crops (peanuts, ground peas, cassava) makes it possible to develop land that has just been afforested for two (02) seasons. Farmers are much more motivated to maintain a plot where there are food crops compared to plots of pure reforestation. Thus, the Acacia also takes advantage of this care to grow even faster. The plots are also much more protected against zebu wandering and wild fires.

### VI.2 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. 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. Combined with the use of good quality manure, especially vermicompost, and good biomass, the project impact will be achieved in year 3.

The supervision of farmers in the production of seeds of specific plants (cover crops and hedges) is also a huge challenge for the project. Indeed, for the sustainability of the actions, the availability of these seeds on site constitutes a predominant criterion. In addition, we have observed many economic operators who came to prospect in the area to find seeds for cover crops and hedges. Thus, apart from its interests in the sustainability of project activities, seed production can also present itself as new sources of income for farmers.

Then, the financing by the FDA Vakinankaratra of the micro-projects set up by the POs supervised by MANITATRA 2 is a major challenge for the remaining period of the project. In particular, in the context of the acquisition of the Stylosanthes rolls which appears in the project document.

Finally, the GSDM proposed to continue reforestation. In fact, 720,000 young plants are already available from the 47 nurserymen providing the project. And, the planting of all these young plants should be completed during the month of January 2021.

### VI.3 Recommendations

Some activities proposed in the project document have not yet been started, such as:

- collecting data on CSA in strategic areas at the national level in order to update data on scaling up CSA and Good Agricultural Practices (GAP) in the country; this activity may go beyond the end of the project.

- and the organization of training sessions and awareness-raising workshops targeting stakeholders
- Also, the Mid-term evaluation of the project has been achieved and we shall prepare the final evaluation during the remaining period and this may go beyond the end of the project.
- Capitalisation of the results of the project will be coming.

During this period, we should start, as soon as possible, to prepare for the implementation of these activities. Indeed, if the health crisis linked to Covid-19 worsens, carrying out these activities could be very difficult, if not impossible.

## VII- CONCLUSION

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This report recounts the results obtained at the end of 2020. However, it also offers some insights into the current situation in relation to the final objectives defined in the project document.

At the end of 2020, 11,518 farmers, including 3,853 women (33.5%) had adopted one or more agro-ecological practices. This corresponds to 76.8% of the final objective of the project in terms of number of beneficiaries.

Among **result 1** listed in the project document, information and awareness meetings were somewhat disrupted by the Covid-19 pandemic. Then, 3,406 peasants (39.2% female) were supported to adopt the Conservation Agriculture (CA) technique at the level of 1,449.34 ha of plots.

At the end of 2020, 720,000 young plants are already available from the 47 nurserymen in collaboration with the project. The planting of these young plants should be completed before the end of January 2021.

Finally, vermicompost continues to be of interest to farmers in the area, especially those in the Highlands. There are currently 548 adopters in this practice.

Then, in **Result 2** of the project, we can mark the completion of a training of teacher representatives that was unforeseen in the project document. This took place in Betafo in February 2020 in order to compensate for departures on assignment and the very large number of students in the 6th class at the CEG de Betafo. The establishment of crops at the level of the application plots of the 12 supervised schools was carried out at the beginning of December 2020. The third workshop to review the activities implemented at the level of these schools was carried out on November 04, 2020 with the participation of representatives of trained teachers, pupils, parents of pupils and some local partners. For the 2020/2021 school year, 3,205 pupils benefited from this approach.

As part of the implementation of the collaboration agreement signed between the GSDM and the DRAEP, two (02) days of field visits in terms of monitoring MANITATRA 2 activities at the level of each District were carried out during this period. In addition, DRAEP agents trained the farmer leaders of the project on techniques for preserving and processing fruits and vegetables, the family budget and regulatory texts in fish farming.

On the other hand, the DREDD agents carried out a support mission for the 47 nurserymen providing the project in November 2020. The goal of this mission was to ensure the production of healthy and robust young plants for this campaign.

Then, the achievement in **result 3** of the project was marked by the implementation of 5 micro-projects financed by the FDA Vakinankaratra. MANITATRA 2 provided support for the contracting authority for these projects.

In addition, this period was also marked by the realization of two (02) days of Field DAY on agroecology in the Region of Vakinankaratra. Organized to strengthen advocacy actions in Agroecology at the national level, this event was a total success for the project. The 3D animated film titled "Agroecology for the Future Generation" was officially released on October 09, 2020 in Antananarivo and on November 05, 2020 in Antsirabe.

Five films were also produced during this period with the collaboration of the E-see Magazine team. But 03 other technical films are being shot.

In addition, to compensate for the failure of the collaboration with the Geosystems design office in the context of setting up a baseline situation for the project. The GSDM established a baseline situation using data collected at the very start of the project, complemented by several socio-economic surveys of agricultural households in the Vakinankaratra Region and cross-checking with the information collected from stakeholders. development of the Region.

The meeting of the project steering committee was held on September 24, 2020 at the Hotel Le Pavé in Antaninarenina / Antananarivo.

Finally, the group of consultants RIVO RABARIJOHN mandated for the mid-term evaluation of the project has already presented its provisional report to the executive management of the GSDM, and then to the Board of Directors of the GSDM. The final report is being finalized.

## VIII- APPENDIX

### Appendix 1 : Technical achievements compared to the project targets

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
1.	<b>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</b>									
Activity 1.1	<b>Conduct awareness raising, advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries</b>									
1.1.1	Inception workshop	Number of workshop	1	1	100%	0	0	1	100%	Activity already realized in year 1
		Number of participant	120	110	92%	0	0	110	92%	
1.1.2	Exchanges visites between & inside communes	Number of participants in exchanges visits inside communes	8 000	5 885	74%	937	12%	6 822	85%	Since the start of the third year of the project, 58 intercommunal exchange visits have been carried out. In total, there were 937 participants, including 450 women (48%). Cumulated with the achievements of year 1 and 2, we have 6,822 beneficiaries of intra-municipal exchange visits organized by the team since the start of the project; or 85% of the project objective.
		Number of participants exchanges visits between commune	500	955	191%	75	15%	1 030	206%	The objective set in the project document concerning this activity has already been largely exceeded, but the exchange visits greatly contribute to the adoption of agro-ecological techniques which will still have to be emphasized.
	Awareness, Information and communication about project activities	Number of participants	7 000	6 142	88%	1 201	17%	7 343	105%	Likewise, information and communication meetings on project activities at the start of the rainy season are essential to allow target farmers to have a first indication of the themes that interest them. But depending on the cropping calendars, other meetings should still be organized.
1.1.3	Car hiring and other expenses during awareness raising	Number of car hiring days	100	52	52%	3	3%	55	55%	In total, 55 car rentals were carried out in this context.
Activity 1.2	<b>Upscale Conservation Agriculture to support the growing of up land rice and other crops</b>									
1.2.1	Provides seeds of cover crops (mucuna, Stylosanthes, cowpea...)	Quantity of Mucuna seeds provided (kg)	18 112	11 712	65%	5 950	33%	17 662	98%	Despite the sudden scarcity of seed for cover crops, it can be said that the needs of the project were generally met. Since the start of MANITATRA 2, 6,008 beneficiaries of subsidized cover crop seeds have been recorded. This corresponds to 120% of the final objective.
		Quantity of Stylosanthes seeds provided (kg)	2 097	1 347	64%	492	23%	1 839	88%	
		Quantity of Cowpea cv David seeds provided (kg)	1 400	1 050	75%	0	0%	1 050	75%	
		Quantity of Oat seeds provided (kg)	1 800	600	33%	1 200	67%	1 800	100%	
		Quantity of Vigna seeds provided (kg)	150	150	100%	0	0%	150	100%	
		Quantity of Cajanus cajan seeds provided (kg)	9 875	6 375	65%	2 900	29%	9 275	94%	
		Number of farmers provided seeds of cover crops	5 000	4 943	99%	1 065	21%	6 008	120%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		Acreage of full Conservation Agriculture (ha of CA)	2 000	1 520,96	76%	1 449,34	72%	1 449,34	72%	A la date du 31 décembre 2020, 1,449.34ha de tanety sont cultivés suivant la technique de l'Agriculture de Conservation ; soit 72% de l'objectif du projet. Mais cette activité se poursuit pour le prochain trimestre.
1.2.2	Support for Stylosanthes rollers	Number group farmer provided Stylosanthes rollers	5	0	0%	0	0%	-	0%	As of December 31, 2020, 1,449.34 ha of <i>tanety</i> are cultivated using the Conservation Agriculture technique; e.g. 72% of the project objective. But this activity continues for the next quarter.
<b>Activity 1.3</b>	<b>Upscale agroforestry and forestation (equipment and seed support to nurseryman and adopting farmers)</b>									
1.3.1	Support tree nurserimen (potting bags, other materials...)	Number of tree nursery man supported	50	58	116%	47	94%	72	144%	For this 2020-2021 reforestation campaign, 47 nurserymen including 11 women (23.4%) are working with the project for the production of young forest plants. But since the start of the project, 72 nurserymen have been registered; i.e. 144% compared to the final objective of MANITATRA 2
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus...)	Number of trees plantlets for reforestation	1 500 000	1 652 402	110%	0	0%	1 652 402	110%	For this year, 720,000 young plants are planned to support farmers for reforestation activities. These young plants are already available at the level of the 47 nurserymen in collaboration with the project. But the delay of the rain postponed the planting period to January 2021. It should be remembered that at the end of year 2 of the project, a total of 1,652,402 young plants were planted. This already corresponds to 110% of the project objective.
1.3.3	Support adopting farmers in fruit tree plantlets	Number of fruit plantlets of farmers adopting	50 000	13 456	27%	0	0%	13 456	27%	Activity planned for the next quarter.
1.3.4	Provide seeds of hedgerows (Cajanus, Tephrosia....)	Quantity of Tephrosia seeds provided (kg)	3 169	2 169	68%	1 000	32%	3 169	100%	For year 3, there are currently 804 farmers benefiting from the seeds of live hedges, including 371 women (or 46.1%). These species consist mainly of <i>Cajanus Cajan</i> and <i>Tephrosia</i> . These beneficiaries currently constitute 73% of the target set in the project document. But this activity is still continuing for the next quarter.
		Quantity of Cajanus cajan seeds provided (kg)	3 550	2 350	66%	2 900	82%	5 250	148%	
		Quantity of Crotalire seeds provided (kg)	168	168	100%	0	0%	168	100%	
		Number of farmers provided seeds of hedgerows	6 500	3 920	60%	804	12%	4 724	73%	During these two quarters of year 3 of the project, 313 farmers including 125 women (39.9%) beneficiaries adopted the practice of living hedges and hedging of plots. There are currently 144.105 meters of hedges installed; or 108% of the final objective of the project. The project team will continue this activity during the next quarter.
length of hedgerow (en mL)	1 000 000	939 750	94%	144 105	14%	1 083 855	108%			
<b>Activity 1.4</b>	<b>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...)</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
1.4.1	Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants (based on the experiences of BVPI, GSDM, CEFTEL)	Number of farmers provided seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants	5 500	3 840	70%	924	17%	4 764	87%	As part of the promotion of biological control ( <i>Ady Gasy</i> ) in order to limit the use of chemicals, the project made seeds of biocidal and / or repellent plants available to farmers. For this year, mucuna and tephrosia are the biocidal plants used by the project. Since the start of year 3 of the project, 924 farmers including 438 women (47.4%) have received seeds. This corresponds to 87% of the project objective.
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	10	10	100%	0	0%	10	100%	Activity already carried out during year 1. No other supply is planned for the rest of the project. But the team will play the role of facilitator for a farmer-farmer approach in order to resume the practice of vermicompost in the area.
		Number of swath (for composting)	250	307	123%	241	96%	548	219%	The dynamism around the practice of vermicompost continues to develop positively in the two intervention areas of the project. In fact, 241 new farmers have been initiated into this practice. This brings to 548 the number of adopters in vermicompost supervised by the project.
	Compost 7 days	Number of swath	200	112	56%	3	2%	115	58%	With the difficulty in finding rumen juice, essential for the production of 7-day compost, the adoption of this practice is very limited.
	Compost 45 days	Number of swath	200	177	89%	10	5%	187	94%	The practice of composting interests farmers in order to fertilize the <i>tanety</i> , especially rainfed rice and corn cultivation. This practice makes it possible to compensate for the insufficiency and the poor quality of organic materials in the two zones.
	Classic compost	Number of swath	600	640	107%	135	23%	775	129%	
	Liquid compost	Number of production units	250	218	87%	29	12%	247	99%	This year, 29 new farmers were introduced to the production of liquid compost. This practice also makes it possible to enhance biocidal and / or repellent plants in order to limit the damage caused by pests. Currently, 99% of the goal in terms of adopting liquid compost has been achieved.
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	300	153	51%	5	2%	158	53%	Since the beginning of year 3, five new breeders have benefited from the project grant for the improvement of the stables. At this stage, 158 breeders have been able to benefit from the support of the project in terms of improving the stables.
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	Quantity of Oat seeds provided (kg)	1 620	1 470	91%	0	0%	1 470	91%	Since the beginning of year 3, 190 farmers have benefited from the seeds of fodder crops subsidized by the project. Thus, since the start of the project, 1053 farmers have benefited from project support for the provision of fodder plant materials and orange-fleshed sweet potato cuttings. This represents 53% of the project objective.
		Quantity of Ryegrass seeds provided (kg)	635	485	76%	0	0%	485	76%	
		Quantity of Chloris seeds provided (kg)	150	0	0%	0	0%	-	0%	
		Quantity of Brachiaria seeds provided (Cutting)	125 000	0	0%	0	0%	-	0%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		Quantity of Pennisetum seeds provided (Cutting)	6 250	0	0%	0	0%	-	0%	
		Quantity of Fodder radish seeds provided (kg)	160	10	6%	0	0%	10	6%	
		Quantity of Corn cv pannar seeds provided (kg)	75	0	0%	0	0%	-	0%	
		Quantity of Orange-fleshed sweet potato creeper provided (Cutting)	16 300	8 300	51%	0	0%	8 300	51%	
		Number farmers provided seeds of forage and food safety plants	2 000	863	43%	190	10%	1 053	53%	
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	150	316	211%	16	11%	332	221%	With the support of ATDRM, the project introduced 93 carp spawners at the beginning of year 3 in order to reduce the problem of fish consanguinity in the area.
<b>Activity 1.5</b>	<b>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</b>									
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	0%	0	0%	These activities are among those which would require an extension of the project compared to its duration initially foreseen in the project document (extension at no additional cost)
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	0%	0	0%	
1.5.3	Train regional directorates of MAEP (DRAEP) in the use of the data base MANAMORA	Number of DRAE trained in the use of the data base MANAMORA	5	0	0%	0	0%	0	0%	
1.5.4	National database transfert to DRAE (Ministry regional branch)	One database transfered	1	0	0%	0	0%	0	0%	
<b>Activity 1.6</b>	<b>Purchase principal mean for upscaling activity</b>									
<b>1.6.1</b>	<b>Purchase of Equipments</b>									
1.6.1.1	Purchase of motorcycles	Number of motorcycle	8	8	100%	0	0%	8	100%	Activity already realized during Year 1
1.6.1.2	Purchase of bicycles	Number of bicycles	50	50	100%	0	0%	50	100%	
<b>1.6.2</b>	<b>Fuel and repairs</b>									
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	Number of Motorcycle use month	297	168	57%	48	16%	216	73%	Current project activity.
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	Number of car hiring days	90	55	61%	18	20%	73	81%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
<b>2.</b>	<b>RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>									
<b>Activity 2.1</b>	<b>Train nurserymen in the technology of tree nurseries and in the choice of the appropriate tree species</b>									
2.1.1	Train Nurserymen/women	Number of Nursery men/women trained	50	57	114%	47	94%	72	144%	Almost all of these nurserymen providing the project as part of the production of young plants for this year have already benefited from the training provided by the DREDD during the 2019/2020 campaign. Thus, for this year, joint missions were organized between the project technicians and the agents of the DREDD Vakinankaratra in order to carry out personalized recycling for each of these nurserymen.
<b>Activity 2.2</b>	<b>Train lead farmers and farmers in CSA (CA, agroforestry and forestation, other good practices)</b>									
2.2.1	Train Lead farmers (by project Technicians and other stakeholders)	Number of Lead farmers	50	82	164%	49	98%	82	164%	Apart from the recycling carried out by the technicians of the project in each commune, the lead farmers also benefited from training on the conservation and processing of fruits and vegetables, the family budget and the regulatory texts in fish farming.
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)	Intervention of Lead farmers (man-day)	12 600	6 977	55%	2 121	17%	9 098	72%	Current project activity.
	Training of adopters	Number of participants	5 000	3 802	76%	661	13%	4 463	89%	As part of the adoption of the farmer-to-farmer approach, training sessions are organized in the area by the farmer leaders. Since the start of the project, 4,463 farmers have attended these sessions; that is 89% of the project objective.
<b>Activity 2.3</b>	<b>Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)</b>									
2.3.1	Make Diagnosis to select beneficiary schools	Number of diagnosis to select beneficiary schools	1	1	100%	0	0%	1	100%	Activity already achieved during Year 1.
		Number of selected schools	12	12	100%	0	0%	12	100%	
2.3.2	Organize Events (Commitment charte event, Tools delivery)	Number of Event	2	2	100%	0	0%	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%	0	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	4	133%	0	0%	4	133%	Activity already achieved during Year 1 and 2.

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
2.3.5	Training Tools (tarpauling, booklet, teacher guideline, language-photo) - 6 new schools	Number of training tools pack	1	2	200%	1	100%	3	300%	On December 12 and 13, 2020, the educational supplies necessary for the theoretical training of students by trained teachers. Currently awaiting publication, the playful booklets for 6th grade students will have to be delivered very soon. Note that these are part of the GSDM's commitments in this process.
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	Number of communication tools pack	2	1	50%	0	0%	1	50%	Planned for next quarter
2.3.7	Produce Film for communication	Number of film for communication produced	1	0	0%	0	0%	-	0%	Planned for next quarter
2.3.8	Produce Cartoon strips for school children	Number of cartoon strips produced for school children	1	0	0%	1	100%	1	100%	The 3D animated film entitled "Agro-ecology for future generations" based on the fun booklet was officially released on October 09, 2020 at IMF Analakely. In addition, following the request of the Region and the DREDD of Vakinankaratra, the screening of this animated film was carried out at the Tranompokonolona of Antsirabe on November 05, 2021.
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	Number of demonstration plot	12	12	100%	12	100%	12	100%	The application plots at the level of the 12 schools supervised by the project were cultivated with agro-ecological practices. As a matter of practice, the installation was carried out by the students, supervised by the teachers and technicians of MANITATRA 2.
2.3.10	Accompany students in the implementation	Number of school children trained	6 000	4 942	82%	3 205	53%	8 147	136%	For this school year, a total of 3205 students benefit from the "introduction of Agro-ecology in schools" approach.
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	Number of competition organized of best school	1	0	0%	0	0%	-	0%	Activity scheduled for quarter 11 (end of March 2021).
2.3.12	Exchange visits between School	Number exchange visits between School	3	18	600%	0	0%	18	600%	Planned for the next quarter
		Number of participants to the exchange visits between school	300	506	169%	0	0%	506	169%	
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	Number annual workshop days	3	2	67%	1	33%	3	100%	A workshop to review activities and their impacts at the level of the 12 schools was carried out on 04 November. In order to better understand the perceptions of each stakeholder, representatives of teachers, students and parents of students were invited to participate in the workshop. In short, the 03 assessment workshops planned in the project have all been carried out at this stage.
2.3.14	Car hiring for training, monitoring and other actions for secondary school	Number of car hiring days	60	37	62%	8,0	13%	45,2	75%	
<b>Activity 2.4.</b>	<b>Organise training sessions targeting development actors such as farmers organisations, NGO and services providers</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	Number of participants from development actor trained	60	0	0%	0	0%	0	0%	Planned for the next quarter
2.4.2	Organize exchange visit in the training sites of GSDM	Number of participants to exchange visit in the training sites of GSDM	2 400	1 964	82%	174	7%	2 138	89%	Since the start of the project, 2,138 visitors have passed through the GSDM training site in Ivory and plots supervised by MANITATRA 2 around the site. These represent 89% of the final objective of the project.
2.4.3	Car hiring during training sessions (6 days per session)	Number of car hiring days	18	0	0%	0	0%	-	0%	
<b>Activity 2.5</b>	<b>Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>									
2.5.1	Organize Information/sensitization of local stakeholders	Number of local stakeholders sensitized on Climate change by regional Meteorology officer	3	2	67%	0	0%	2	67%	Two awareness-raising workshops on the use of agro-meteorological data have already been carried out since the start of the project. A final workshop should be organized for the next quarter.
2.5.2	Organize Training workshop for local stakeholders	Number of training workshop session	3	0	0%	0	0%	-	0%	Planned for the next quarter
		Number of participants trained on Climate Change and information bulletins	75	0	0%	0	0%	-	0%	Planned for the next quarter
2.5.3	Provide regional Meteorological information bulletins (quarterly)	Number of information bulletins provided	800	343	43%	130	16%	473	59%	Since the start of the project, 473 agro-meteorological bulletins have been distributed since the start of the project. However, during quarter 10 of the project, the Head of Meteorology Service of Vakinankaratra who was the agent designated by the DIRTTM Vakinankaratra-Amoron'i Mania as the project interlocutor was assigned to another Region. This event did not allow the development of the agro-meteorological bulletin October-November-December 2021.
2.5.4	Provide per diem for meteorological officer	Number of METEO officer man-day intervention	12	16	133%	4	33%	20	167%	
<b>Activity 2.6</b>	<b>Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEEF) or regional directorates</b>									
2.6.1	Organize field collaboration and exchange by MPAE + MEEF	Number of mission	3	0	0%	0	0%	-	0%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
2.6.2	Organize field collaboration and exchange by regional directorates (DRAEP + DREDD)	number of signed agreements	2	2	100%	2	100%	2	100%	Collaboration with DRAEP and DREDD Vakinankaratra continues for this last year of the project. In fact, on November 19-20 and 26-27, 2020, DRAEP agents successively trained lead farmers in the Middle West and on the Highlands. Three themes were developed: the conservation and processing of fruits and vegetables, the concept of family budget, and regulatory texts in fish farming. For its part, DREDD agents in each of the 05 project intervention districts carried out several support missions to 47 nurserymen providing project services. The objective is to support the nurserymen in order to cover the needs of young forest plants of the project. But it was also an opportunity for DREDD agents to retrain from the training they carried out during the 2019-2020 campaign.
<b>Activity 2.7</b>	<b>Participate to CSA integration into public policies</b>									
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)	Number of workshop on CSA in which the GSDM take part	3	2	67%	1	33%	3	100%	On December 16 and 17, the GSDM organized a "Research and Development Interface" workshop. The aim of the workshop was to put research organizations and those working in the dissemination of innovations on the same table in order to optimize the interventions of each. But we also invited farmers so that they could relate the context in which they find themselves, their constraints and their visions on the work of each group of the organizations.
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	3	1	33%	0	0%	1	33%	
<b>3.</b>	<b>RESULT 3 : Farmers organisations are supported and linked to various stakeholders in the Agriculture to support sustainability of the project results</b>									
<b>Activity 3.1.</b>	<b>Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks</b>									
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	3	0	0%	0	0%	-	0%	Activity planned for the next quarter.
		Number of participants informed on Climate Change framework	90	0	0%	0	0%	-	0%	Activity planned for the next quarter.
3.1.2	Car hiring during training sessions (2 days per session)	Number of car hiring days	6	0	0%	0	0%	-	0%	Activity planned for the next quarter.
<b>Activity 3.2</b>	<b>Participate to sharing experiences at the regional level (COMESA and other regions) integrating political actors and development actors</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
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	1	0	0%	0	0%	0	0%	The organization of this exchange visit will depend on the evolution of the current health crisis.
		Number of exchange visits participants	5	0	0%	0	0%	0	0%	
<b>Activity 3.3.</b>	<b>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</b>									
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	3	300%	0	0%	3	300%	
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%	2	200%	1	100%	As part of a project named "FANDROSO" for a duration of 03 years (RINDRA Program), the FDA Vakinankaratra has funding from the European Union. Thus, the Project-FDA and Project-Farmer Groups consultations accelerated significantly during this period. At the beginning of October 2020, 58 funding requests put together by farmer organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agro-ecology have benefited from FDA funding: 02 rice-fish farming projects, 02 rain-fed rice farming projects, and 01 dairy cow breeding project.
		Number FOs benefiting finance from FDAR	90	0	0%	5	6%	5	6%	
<b>Activity 3.4.</b>	<b>Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider to make a link between the farmers and the agricultural services</b>									
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%	Currently, CSAs (Ag Service Centers) have become providers of agricultural services, especially at the level of the FDA Vakinankaratra. Thus, the CSA / FDA development mechanism as described in the project document has changed.
<b>Activity 3.5.</b>	<b>Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions</b>									
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	Support from APDRA (2 Years of support for technicians and lead farmers)	2	1	50%	1	50%	2	100%	Collaboration with ATDRM in the context of promoting rice-fish farming, and FIFAMANOR on improving milk production continued during this quarter. The ATDRM team ensured the supply and delivery of carp broodstock from the Ankazobe / Analamanga area to the nurserymen supervised by the project. During these deliveries, recycling techniques for the production of fry were carried out. In addition, in the context of improving cattle feed, FIFAMANOR continued to set up fodder plots at 03 sites, including 02 in the highlands and 01 in the middle west.
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	Support from FIFAMANOR (2 Years of support for technicians and lead farmers)	2	1	50%	1	50%	2	100%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	Support from CEFFEL (2 Years of support for technicians and lead farmers	2	1	50%	0	0%	1	50%	Activity already achieved during Year 1.
<b>4.</b>	<b>COMMUNICATION AND VISIBILITY</b>									
<b>Activity 4.1.</b>	<b>Visibility and communication events organization</b>									
4.1.1	Organization of regional field days targeting government authorities and development actors	Number of regional field days	1	1	100%	0	0%	1	100%	Activity already achieved during Year 2.
		Number of participants (Authorities, donors, local stakeholders, lead farmers, researchers, development actors, unions farmer and journalist)	150	167	111%	0	0%	167	111%	
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	Number of streamer	6	3	50%	0	0%	3	50%	During the official release of the 3D animated film "Agro-ecology for the future generation", a roll up and a banner were made.
		Number of roll up	6	2	33%	2	33%	4	67%	
4.1.3	Car hiring for all communication and visibility action	Number of car hiring days	60	28	47%	4	7%	32	53%	
<b>Activity 4.2.</b>	<b>Publications and broadcasting</b>									
4.2.1	Broadcasting on national TV	Number of TV broadcasting	2	7	350%	0	0%	7	350%	The E-see Magazine show rebroadcast the technical films produced in the framework of the project on national television (TVM). In addition, the program FIVOHY is broadcast monthly on the Malagasy national radio (RNM)
4.2.2	Broadcasting on national Radio	Number of Radio broadcasting	30	22	73%	6	20%	28	93%	
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)	120	49	41%	16	13%	65	54%	In general, communication activities on the project, as well as on other projects carried out by the GSDM are carried out regularly.
		Number of newspapers'publication	8	12	150%	3	38%	15	188%	
		Number of publication type (online & social media)	2	9	450%	19	950%	28	1400%	
		Number of TV events broadcasting	6	12	200%	4	67%	16	267%	
		Number of Radio events broadcasting	6	7	117%	4	67%	11	183%	
<b>Activity 4.3.</b>	<b>Documentaries conception and edition</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
4.3.1	Edition documents and tools for technicians and farmers	Number of document and tools pack edited	1	1	100%	1	100%	2	200%	Currently, the objective set in the project document has been reached.
4.3.2	Editing of films for each project events	Number of films	5	6	120%	0	0%	6	120%	The production of 03 new technical films is scheduled for this year > rice-fish farming > dairy farming > conservation agriculture A filming mission has already been completed. Two other sessions are in progress.
4.3.3	Capitalization leaflets	Number of capitalization leaflets	1	1	100%	0	0%	1	100%	
<b>5. PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)</b>										
<b>Activity 5.1. PMU officials recruited</b>										
5.1.1	National Technical Assistant (Project Leader)	Months	33	22	65%	6	18%	27,5	83%	Current project activity.
5.1.2	Assitant of project leader	Months	33	21	64%	6	18%	27,0	82%	
5.1.3	Technician Agroecology (Highland+Middle West) (6 technicians)	Months	198	129	65%	36	18%	165,0	83%	
<b>Activity 5.2. GSDM Backstopping fully implemented by his key staff</b>										
5.2.1	Director (2 months per year)	Months	6	4	67%	1,0	16,7%	5,0	83,33%	Current project activity.
5.2.2	Agronomist (2 months per year)	Months	6	4	67%	1,0	16,7%	5,0	83,33%	
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Hasina)	Months	12	8	67%	2,0	16,7%	10,0	83,33%	
5.2.4	Agro economist (2 months per year)	Months	6	4	67%	1,0	16,7%	5,0	83,33%	
5.2.5	Communication Officer (2 months per year)	Months	6	4	67%	1,0	16,7%	5,0	83,33%	
5.2.6	Agronomist Vakinankaratra (2 months per year)	Months	6	4	67%	1,0	16,7%	5,0	83,33%	
<b>Activity 5.3. Local missions</b>										
5.3.1	Per diem for GSDM national staff	Days	600	274	46%	76	13%	350	58%	Current project activity.
5.3.2	Per diem for local staff	Days	300	129	43%	26	9%	155	52%	
<b>Activity 5.4. Mean and equipments implementation</b>										

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
<b>5.4.3</b>	<b>Offices renting and communication</b>									
5.4.3.1	Regional office renting	month	36	23	64%	6	17%	29	81%	Current project activity.
<b>5.4.4</b>	<b>Equipments</b>									
5.4.4.1	PC/laptop	Unit	4	5	125%	0	0%	5	125%	Activity already achieved during Year 1 and 2.
5.4.4.2	Printers/scanner/photocopiers	Unit	2	2	100%	0	0%	2	100%	
5.4.4.3	Digital camera	Unit	2	2	100%	0	0%	2	100%	
5.4.4.4	Vidéoprojecteurs + screens	Unit	2	2	100%	0	0%	2	100%	
5.4.4.5	Hard disks	Unit	1	1	100%	0	0%	1	100%	
5.4.4.6	Other equipments (flat rate per technician)	Per technician	6	6	100%	0	0%	6	100%	
5.4.4.7	Communication/courier and other coordination expenses	Unit	3	3	100%	1	17%	4	117%	Current project activity.
<b>5.4.5</b>	<b>Spare parts for hard ware and other office machineries</b>									
5.4.5.1	Spares (hard ware, photocopiers etc.)	year	3	2	67%	1	17%	3	83%	Current project activity.
<b>6.</b>	<b>PPROJECT OVERSIGHT</b>									
<b>Activity 6.1.</b>	<b>Steering committee</b>									
6.1.1	Steering committee establishment	Steering committee established	1	1	100%	0	0%	1	100%	On September 24, 2020, a meeting of the Steering Committee was organized at the Hotel Le Pavé in Antaninarenina / Antananarivo.
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	Number of steering committee meetings	3	1	33%	1	33%	2	67%	
<b>Activity 6.2.</b>	<b>Monitoring and Evaluation of the project</b>									
6.2.1	Base line study through external expertise	One base line study	1	1	100%	0	0%	2	200%	Activity already achieved during Year 2.
6.2.2	Financial auditing	Financial auditing (one per year by COMESA)	3	1	33%	0	0%	1	33%	
6.2.3	Bi-annual reportings	Semestrial report (1st : 1 per year)	3	2	67%	0	0%	2	67%	
6.2.4	Annual reportings	Annual report (including semestrial 2 report)	3	2	67%	1	33%	3	100%	
6.2.5	Mid-term evaluation through external expertise	One Mid-term evaluation	1	0	0%	1	100%	1	100%	The group of consultants mandated for the mid-term evaluation of the project has already presented its provisional report on this study to the executive management of the GSDM, and then to the Board of Directors of the GSDM. The final report is in progress.
6.2.6	Final evaluation through external expertise	One Final evaluation	1	0	0%	0	0%	-	0%	
6.2.7	Car hiring for monitoring and evaluation	Number of car hiring days	90	11	12%	0	0%	11	12%	

Budget acc.	Expected Result / Planned Activities	Indicator	Project target	Achievement of the Year 1 and Year 2		Achievement of the Year 3		Cumulative achievements		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
Activity 6.3.	Project achievements capitalization									
6.3.1	Project capitalization report	Number of capitalization report	1	0	0%	0	0%	0	0%	

## Appendix 2 : Technical achievements compared to the targets of Year 3

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
1.	<b>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</b>									
Activity 1.1	<b>Conduct awareness raising, advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries</b>									
1.1.1	Inception workshop	Number of workshop	0	0	0%	0	0%	-	0%	Activity already realized in year 1
		Number of participant	15	0	0%	0	0%	-	0%	Activity already realized in year 1
1.1.2	Exchanges visits between & inside communes	Number of participants in exchanges visits inside communes	6 000	402	7%	535	9%	937	16%	During this 10th quarter, 31 inter-communal exchange visits were organized by the project team for the participation of 535 farmers, including 320 women (ie 59.8%). During this period, the visits mainly focus on rainy season crops in Conservation Agriculture.
		Number of participants exchanges visits between commune	500	0	0%	75	15%	75	15%	Three (03) extra-communal exchange visits were carried out during this period. Two visits for the benefit of the members of the CROA (Regional Committee for Granting and Allocation) of the FDA Vakinankaratra in the two intervention areas of the project; and a visit for the peasants in the District of Ambatolampy. During these 03 visits, 75 participants were registered, including 30 women (ie 40%).
	Awareness, Information and communication about project activities	Number of participants	2 000	332	17%	869	43%	1 201	60%	At the start of the rainy season, information and awareness sessions on project actions were increased. Indeed, 28 such meetings were held. And, among the 869 participants, there were 431 women (or 49.6%).
1.1.3	Car hiring and other expenses during awareness raising	Number of car hiring days	24	0	0%	3	13%	3	13%	> Exchange visit of CROA members and the FDA Vakinankaratra team in the Middle West and on the Highlands: 2 days. > Visit of farmers' exchanges in the Ambatolampy District on the Highlands: 1 day
Activity 1.2	<b>Upscale Conservation Agriculture to support the growing of up land rice and other crops</b>									
1.2.1	Provides seeds of cover crops (mucuna, Stylosanthes, cowpea...)	Quantity of Mucuna seeds provided (kg)	6 400	0	0%	5 950	93%	5 950	93%	Currently, Agroecology is starting to integrate many projects implemented in Madagascar. This is reflected in the increase in demand for service plant seeds. Thus, compared to the forecast for this year, we could not find seeds of Cowpea david. The project's needs for Stylosanthes and <i>Cajanus cajan</i> are also not being met. And, as of December 31, 2020, 1,065 farmers, including 494 women (or 46.4%) have benefited from the seeds of cover plants from the project. This represents 71% of the Year 3 objective of the project. However, the provision of seeds of cover plants to farmers interested in this practice will continue during the next quarter.
		Quantity of Stylosanthes seeds provided (kg)	750	0	0%	492	66%	492	66%	
		Quantity of Cowpea cv David seeds provided (kg)	350	0	0%	0	0%	-	0%	
		Quantity of Oat seeds provided (kg)	1 200	0	0%	1 200	100%	1 200	100%	
		Quantity of Vigna seeds provided (kg)	-	0	0%	0	0%	-	0%	
		Quantity of Cajanus cajan seeds provided (kg)	3 500	0	0%	2 900	83%	2 900	83%	
		Number of farmers provided seeds of cover crops	1 500	0	0%	1 065	71%	1 065	71%	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		Acreage of full Conservation Agriculture (ha of CA)	2 000	0,00	0%	1 449,34	72%	1 449,34	72%	Supporting farmers in the practice of Conservation Agriculture was one of the project's priority activities during this quarter. In this sense, 3,046 peasants, including 1,195 women (or 39.2%) adopted Conservation Agriculture on December 31, 2020. Thus, 1,449 ha of <i>tanety</i> were cultivated using AC systems; or 72% of the final objective of the project. Support for farmers in CA continues during the next quarter.
1.2.2	Support for Stylosanthes rollers	Number group farmer provided Stylosanthes rollers	3	0	0%	0	0%	-	0%	At the beginning of October 2020, 58 funding requests put together by farmers' organizations supervised by the project were submitted to the FDA Vakinankaratra. Two (02) FOs integrated the Stylosanthes rolls in their request; but were not funded by the FDA during the last grant and allocation sessions.
<b>Activity 1.3</b>	<b>Upscale agroforestry and forestation (equipment and seed support to nurseryman and adopting farmers)</b>									
1.3.1	Support tree nurserymen (potting bags, other materials...)	Number of tree nursery man supported	25	0	0%	47	188%	47	188%	For this reforestation campaign, the project is working with 47 nurserymen (service providers). In fact, in order to make young woody plants available to its beneficiaries, the project has established collaboration agreements with these nurserymen. With the support of DREDD, the project provides technical support for these nurserymen. On the other hand, there is no other form of support towards these service providers, whether in cash or in kind. At the end, each young plants left at the level of these nurseries will be paid by the project at the rate of 190Ar.
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus...)	Number of trees plantlets for reforestation	720 000	0	0%	0	0%	-	0%	Initially, the project planned to plant 75% of the young before the end of December 2020. But the low rainfall at the start of the campaign delayed planting, despite the large sizes of young plants in the nurseries. Thus, if the climatic conditions allow it, 100% of young plants should be planted before the end of January 2021.
1.3.3	Support adopting farmers in fruit tree plantlets	Number of fruit plantlets of farmers adopting	10 000	0	0%	0	0%	-	0%	At the end of December 2020, a little more than 900 young fruit plants were the subject of requests from the farmers supervised by the project. The first deliveries should take place at the start of the next quarter.
1.3.4	Provide seeds of hedgerows (Cajanus, Tephrosia....)	Quantity of Tephrosia seeds provided (kg)	1 000	0		1 000	100%	1 000	100%	As it stands, live hedge seeds are not yet available in the project areas. The project is then forced to introduce these plant materials to disseminate this agro-ecological practice. But producing these seeds locally remains a big challenge for the project team. At this stage, the beneficiaries of these seeds total 804 peasants, including 371 women (ie 46.1%). This number of beneficiaries corresponds to 32% of the objective of year 3 of the project. But this activity will continue in the next quarter.
		Quantity of Cajanus cajan seeds provided (kg)	1 200	0		2 900	242%	2 900	242%	
		Quantity of Crotalair seeds provided (kg)	-	0		0	0%	-	0%	
		Number of farmers provided seeds of hedgerows	2 500	0	0%	804	32%	804	32%	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		length of hedgerow (in mL)	500 000	0	0%	144 105	29%	144 105	29%	During this quarter, 313 farmers, including 125 women (or 39.9%) were supervised by the project for the development of plots. In this practice, we have the installations of living hedges and / or interlocking plots; and the installation of infiltration channels along the contour lines. In total, 144,105 meters of these anti-erosion devices were put in place in the project intervention areas, or 29% of the project's annual objective.
<b>Activity 1.4</b>	<b>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...)</b>									
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	2 000	0	0%	924	46%	924	46%	At the end of December 2020, the biocidal and / or repulsive plants distributed by the project consist of Tephrosia and Mucuna. There were 924 beneficiaries, including 438 women (47.4%) of these seeds; which represents 46 of the objective of year 3 of the project. The provision of these plant materials to other farmers should continue during the next quarter. In addition, other plants such as wormwood, tansy and comfrey should be added to these two species.
1.4.2	Provide worms for composting	Quantity of provided worms for composting (kg)	-	0	0%	0	0%	-	0%	Activity already realized in year 1
		Number of swath (for composting)	150	170	113%	71	47%	241	161%	At first glance, the number of peasants introduced to the vermicompost technique continues to increase. In fact, 71 new farmers have adopted this technique during the past 3 months. And during these two quarters, we are already at 161% of the target for the year.
	Compost 7 days	Number of swath	75	0	0%	3	4%	3	4%	
	Compost 45 days	Number of swath	75	6	8%	4	5%	10	13%	
	Classic compost	Number of swath	200	94	47%	41	21%	135	68%	
Liquid compost	Number of production units	100	29	29%	0	0%	29	29%		
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	150	5	3%	0	0%	5	3%	Activity planned for the next quarter.
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	Quantity of Oat seeds provided (kg)	150	0	0%	0	0%	-	0%	Activity planned for the next quarter.
		Quantity of Ryegrass seeds provided (kg)	150	0	0%	0	0%	-	0%	
		Quantity of Chloris seeds provided (kg)	150	0	0%	0	0%	-	0%	
		Quantity of Brachiaria seeds provided (Cutting)	125 000	0	0%	0	0%	-	0%	
		Quantity of Pennisetum seeds provided (Cutting)	6 250	0	0%	0	0%	-	0%	
		Quantity of Fodder radish seeds provided (kg)	150	0	0%	0	0%	-	0%	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		Quantity of Corn cv pannar seeds provided (kg)	75	0	0%	0	0%	-	0%	
		Quantity of Orange-fleshed sweet potato creeper provided (Cutting)	8 000	0	0%	0	0%	-	0%	
		Number farmers provided seeds of forage and food safety plants	800	190	24%	0	0%	190	24%	
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	300	16	5%	0	0%	16	5%	For this campaign, the project is working with 16 breeders. As a reminder, 93 carp spawners were introduced into the area in order to correct the problem of consanguinity of fish in the area. Normally, the rice fields should be stocked already. But the delay of the rain somewhat disrupted the schedule initially established. But this is one of the priority activities for the next quarter.
<b>Activity 1.5</b>	<b>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</b>									
1.5.1	Contract with a firm to conduct National survey in some strategic agro-ecological areas	Number of national survey (with national data in CSA)	1	0	0%	0	0%	-	0%	These activities are among those which would require an extension of the project compared to its duration initially foreseen in the project document (extension at no additional cost)
1.5.2	Integrate data in MANAMORA database - and include database improvement by contracting with CIRAD	Number of contract with CIRAD expertise to integrate data in MANAMORA database	1	0	0%	0	0%	-	0%	
1.5.3	Train regional directorates of MPAE (DRAE) in the use of the data base MANAMORA	Number of DRAE trained in the use of the data base MANAMORA	5	0	0%	0	0%	-	0%	
1.5.4	National database transfer to DRAE (Ministry regional branch)	One database transferred	1	0	0%	0	0%	-	0%	
<b>Activity 1.6</b>	<b>Purchase principal mean for upscaling activity</b>									
<b>1.6.1</b>	<b>Purchase of Equipments</b>									
1.6.1.1	Purchase of motorcycles	Number of motorcycle	0	0	0%	0	0%	-	0%	Activity already realized in year 1
1.6.1.2	Purchase of bicycles	Number of bicycles	0	0	0%	0	0%	-	0%	Activity already realized in year 1
<b>1.6.2</b>	<b>Fuel and repairs</b>									
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	Number of Motorcycle use month	96	24	25%	24	25%	48	50%	Current project activity.

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	Number of car hiring days	30	0	0%	18	60%	18	60%	> October 20 to 24, 2020 (05 days): monitoring of reforestation and improved barns (Mr Andry and Mrs Vololona) > November 25 to 28, 2020 (04 days): participation in the exchange visit of TFNAC members; Mr Tahina > December 15 to 18, 2020 (04 days): Research and development interface workshop. Central GSDM team: DE, Ms. Mireille, Ms. Liva, Ms. Vololona, Mr. Andry, Mr. Tina, Mr. Tahina, Ms. Sitraka > December 26 to 30, 2020: inventory and monitoring of seeds. Mrs Liva and Mr Andry
<b>2.</b>	<b>RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>									
<b>Activity 2.1</b>	<b>Train nurserymen in the technology of tree nurseries and in the choice of the appropriate tree species</b>									
2.1.1	Train Nurserymen/women	Number of Nursery men/women trained	50	0	0%	47	94%	47	94%	Almost all of these nurserymen providing the project as part of the production of young plants for this year have already benefited from the training provided by the DREDD during the 2019/2020 campaign. Thus, for this year, joint missions were organized between the project technicians and the agents of the DREDD Vakinankaratra in order to carry out personalized recycling for each of these nurserymen.
<b>Activity 2.2</b>	<b>Train lead farmers and farmers in CSA (CA, agroforestry and forestation, other good practices)</b>									
2.2.1	Train Lead farmers (by project Technicians and other stakeholders)	Number of Lead farmers	51	0	0%	49	96%	49	96%	Apart from the recycling carried out by the technicians of the project in each municipality, the peasant leaders also benefited from training on the conservation and processing of fruits and vegetables, the family budget and the regulatory texts in fish farming.
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	4 998	1 057	21%	1 064	21%	2 121	42%	Current project activity.
	Training of adopters	Number of participants	2 000	254	13%	407	20%	661	33%	Current project activity.
<b>Activity 2.3</b>	<b>Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)</b>									
2.3.1	Make Diagnosis to select beneficiary schools	Number of diagnosis to select beneficiary schools	0	0	0%	0	0	-	0%	Activity already realized in year 1
		Number of selected schools	0	0	0%	0	0%	-	0%	Activity already realized in year 1
2.3.2	Organize Events (Commitment chart event, Tools delivery)	Number of Event	0	0	0%	0	0%	-	0%	Activity already realized in year 1
2.3.3	Organize Training for Ministry Branch (OEMC/DREMC/BEMC)	Number of session organized for training for Ministry Branch	0	0	0%	0	0%	-	0%	Activity already realized in year 1
2.3.4	Organize Training for teachers (3 sessions of training in Vakinankaratra)	Number of session organized for training for teachers	0	0	0%	0	0%	-	0%	Activity already realized in year 1 and year 2

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
2.3.5	Training Tools (tarpauling, booklet, teacher guideline, language-photo) - 6 new schools	Number of training tools pack	1	0	0%	1	100%	1	100%	On December 12 and 13, 2020, the educational supplies necessary for the theoretical training of students by trained teachers. Currently awaiting publication, the playful booklets for 6th grade students will have to be delivered very soon. Note that these are part of the GSDM's commitments in this process.
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	Number of communication tools pack	1	0	0%	0	0%	-	0%	Activity planned for the next quarter.
2.3.7	Produce Film for communication	Number of film for communication produced	0	0	0%	0	0%	-	0%	Activity planned for the next quarter.
2.3.8	Produce Cartoon strips for school children	Number of cartoon strips produced for school children	1	1	100%	0	0%	1	100%	The 3D animated film entitled "Agro-ecology for future generations" based on the fun booklet was officially released on October 09, 2020 at IMF Analakely. In addition, following the request of the Region and the DREDD of Vakinankaratra, the screening of this animated film was carried out at the Tranompokonolona of Antsirabe on November 05, 2021.
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	Number of demonstration plot	12	0	0%	12	100%	12	100%	The application plots at the level of the 12 schools supervised by the project were cultivated with agro-ecological practices. As a matter of practice, the installation was carried out by the students, supervised by the teachers and technicians of MANITATRA 2.
2.3.10	Accompany students in the implementation	Number of school children trained	2 000	0	0%	3205	160%	3 205	160%	For this school year, a total of 3205 students benefit from the "introduction of Agro-ecology in schools" approach.
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	Number of competition organized of best school	1	0	0%	0	0%	-	0%	Activité repoussée au mois de Mars 2021.
2.3.12	Exchange visits between School	Number exchange visits between School	3	0	0%	0	0%	-	0%	Planned for the next quarter
		Number of participants to the exchange visits between school	120	0	0%	0	0%	-	0%	
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	Number annual workshop days	1	0	0%	1	100%	1	100%	A workshop to review activities and their impacts at the level of the 12 schools was carried out on 04 November. In order to better understand the perceptions of each stakeholder, representatives of teachers, students and parents of students were invited to participate in the workshop.
2.3.14	Car hiring for training, monitoring and other actions for secondary school	Number of car hiring days	10	0	0%	8	80%	8,0	80%	November 03 to 06, 2020 (04 days): workshop to review activities at school level (02 car). Central GSDM team: DE, Ms. Mireille, Ms. Liva, Ms. Vololona, Mr. Andry
<b>Activity 2.4.</b>	<b>Organise training sessions targeting development actors such as farmers organisations, NGO and services providers</b>									
2.4.1	Organize training sessions targeting development actors as farmers	Number of participants from development actor trained	30	0	0%	0	0%	-	0%	Planned for the next quarter

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
	organizations, NGO, local service provider									
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	58	7%	116	15%	174	22%	The reception and animation of visits and exchanges on agro-ecological sites supervised by the GSDM (on the Antsirabe - Mandoto axis, on the Ivory site and some achievements of the Manitra 2 project have made it possible to register one hundred and sixteen (116) participants during this period. Among these visitors, there were 47 women and 69 men. They are 9 decision makers, 2 researchers, 34 technicians, 33 students and 37 farmers. These farmers are pilot farmers of the PAPAM project supervised by the consortium Agrisud-SDMad on the Highlands and Middle West of Vakinankaratra.
2.4.3	Car hiring during training sessions (6 days per session)	Number of car hiring days	12	0	0%	0	0%	-	0%	Planned for the next quarter
<b>Activity 2.5</b>	<b>Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>									
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%	Planned for the next quarter
2.5.2	Organize Training workshop for local stakeholders	Number of training workshop session	2	0	0%	0	0%	-	0%	Planned for the next quarter
		Number of participants trained on Climate Change and information bulletins	50	0	0%	0	0%	-	0%	Planned for the next quarter
2.5.3	Provide regional Meteorological information bulletins (quarterly)	Number of information bulletins provided	520	130	25%	0	0%	130	25%	During this period, the Head of Meteorology Service of Vakinankaratra who was the agent designated by the DIRTMM Vakinankaratra-Amoron'i Mania as the interlocutor of the project was assigned to another Region. This event did not allow the development of the agro-meteorological bulletin October-November-December 2021.
2.5.4	Provide per diem for meteorological officer	Number of METEO officer Man-day intervention	40	4	10%	0	0%	4	10%	
<b>Activity 2.6</b>	<b>Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEEF) or regional directorates</b>									
2.6.1	Organize field collaboration and exchange by MPAE + MEEF	Number of mission	1	0	0%	0	0%	-	0%	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
2.6.2	Organize field collaboration and exchange by regional directorates (DRAEP + DREDD)	number of signed agreements	2	0	0%	2	100%	2	100%	Let us recall that the project established a collaboration with the DRAEP and the DREDD Vakinankaratra in order to involve more these branches of ministry with the aim of the sustainability of the results obtained. On November 19-20 and 26-27, 2020, DRAEP agents successively trained peasant leaders in the Middle West and on the Highlands. Three themes were developed: the conservation and processing of fruits and vegetables, the concept of family budget, and regulatory texts in fish farming. For its part, DREDD agents in each of the 05 project intervention districts carried out several support missions to 47 nurserymen providing project services. The objective is to support the nurserymen in order to cover the needs of young forest plants of the project. But it was also an opportunity for DREDD agents to retrain from the training they carried out during the 2019-2020 campaign.
<b>Activity 2.7</b>	<b>Participate to CSA integration into public policies</b>									
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	0	0%	1	100%	1	100%	On December 16 and 17, the GSDM organized a "Research and Development Interface" workshop. The aim of the workshop was to put research organizations and those working in the dissemination of innovations on the same table in order to optimize the interventions of each. But we also invited farmers so that they could relate the context in which they find themselves, their constraints and their visions on the work of each of the organizations.
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	0	0%	0	0%	-	0%	
<b>3.</b>	<b>RESULT 3 : Farmers organisations are supported and linked to various stakeholders in the Agriculture to support sustainability of the project results</b>									
<b>Activity 3.1.</b>	<b>Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks</b>									
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%	0	0%	-	0%	Activity planned for the next quarter.
		Number of participants informed on Climate Change framework	30	0	0%	0	0%	-	0%	Activity planned for the next quarter.
3.1.2	Car hiring during training sessions (2 days per session)	Number of car hiring days	3	0	0%	0	0%	-	0%	Activity planned for the next quarter.
<b>Activity 3.2</b>	<b>Participate to sharing experiences at the regional level (COMESA and other regions) integrating political actors and development actors</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
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	1	0	0%	0	0%	-	0%	The organization of this exchange visit will depend on the evolution of the current health crisis.
		Number of exchange visits participants	6	0	0%	0	0%	-	0%	
<b>Activity 3.3.</b>	<b>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</b>									
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	0	0%	0	0%	-	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%	1	100%	2	100%	As part of a project named "FANDROSO" for a duration of 03 years (RINDRA Program), the FDA Vakinankaratra has funding from the European Union. Thus, the Project-FDA and Project-Farmer Groups consultations accelerated significantly during this period. At the beginning of October 2020, 58 funding requests put together by farmers' organizations supervised by the project were submitted to the FDA Vakinankaratra. Currently, 05 micro-projects in Agro-ecology have benefited from FDA funding: 02 rice-fish farming projects, 02 rain-fed rice farming projects, and 01 dairy cow breeding project.
		Number FOs benefiting finance from FDAR	30	0	0%	5	17%	5	17%	
<b>Activity 3.4.</b>	<b>Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider to make a link between the farmers and the agricultural services</b>									
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)	5	0	0%	0	0%	-	0%	Currently, CSAs have become providers of agricultural services, especially at the level of the FDA Vakinankaratra. Thus, the CSA / FDA development mechanism as described in the project document has changed.
<b>Activity 3.5.</b>	<b>Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions</b>									
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	Support from APDRA (2 Years of support for technicians and lead farmers)	1	0	0%	1	100%	1	100%	Collaboration with ATDRM in the context of promoting rice-fish farming, and FIFAMANOR on improving milk production continued during this quarter. The ATDRM team ensured the supply and delivery of carp broodstock from the Ankazobe / Analamanga area to the nurserymen supervised by the project. During these deliveries, recycling techniques for the production of fry were carried out. In addition, in the context of improving cattle feed, FIFAMANOR continued to set up fodder plots at 03 sites, including 02 in the highlands and 01 in the middle west.
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	Support from FIFAMANOR (2 Years of support for technicians and lead farmers)	1	0	0%	1	100%	1	100%	

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	Support from CEFFEL (2 Years of support for technicians and lead farmers)	1	0	0%	0	0%	-	0%	Activity already realized in year 1
<b>4.</b>	<b>COMMUNICATION AND VISIBILITY</b>									
<b>Activity 4.1.</b>	<b>Visibility and communication events organization</b>									
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%	Activity already realized in year 2
		Number of participants (Authorities, donors, local stakeholders, lead farmers, researchers, development actors, unions farmer and journalist)	0	0	0%	0	0%	-	0%	
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	Number of streamer	-	0	0%	0	0%	-	0%	During the official release of the 3D animated film "Agro-ecology for the future generation", a roll up and a banner were made.
		Number of roll up	2	0	0%	2	100%	2	100%	
4.1.3	Car hiring for all communication and visibility action	Number of car hiring days	12	0	0%	4	33%	4	33%	In view of the production of 03 technical films on rice-fish farming, milk production and CA, a 4-day shoot was made with the E-see Magazine (TVM) team.
<b>Activity 4.2.</b>	<b>Publications and broadcasting</b>									
4.2.1	Broadcasting on national TV	Number of TV broadcasting	1	0	0%	0	0%	-	0%	
4.2.2	Broadcasting on national Radio	Number of Radio broadcasting	12	3	25%	3	25%	6	50%	The program FIVOHY is broadcast monthly on the Malagasy national radio (RNM)
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)	20	0	0%	16	80%	16	80%	During the preview of the 3D animated film "Agro-ecology for the future generation" and the workshop to review activities at the level of the 12 schools supervised by the project, media coverage was ensured successively by 06 and 10 journalists.
		Number of newspapers'publication	8	0	0%	3	38%	3	38%	The Midi-Madagascar newspaper and Gazetiko have published articles relating the preview of the 3D animated film "Agro-ecology for the future generation" at the IFM Analakely. In addition, with the participation of many GSDM partners, the Agro-ecology journal n° 09 was published during this quarter.
		Number of publication type (online & social media)	2	3	150%	16	800%	19	950%	Following various events organized by the project, 16 online publications were recorded during this period: > a publication of the online newspaper DELIRE MADA on the official release of the 3D animated film "Agro-ecology for the future generation" at the IFM Analakely > three publications from the online newspaper DELIRE MADA on the workshop to review the activities carried out in the 12 schools supervised by the project > and 12 publications on the GSDM Facebook Page and Account

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
		Number of TV events broadcasting	2	0	0%	4	200%	4	200%	During the assessment workshop of the activities carried out at the level of the 12 schools supervised by the project, local television (Dream'inn + Rta + Tvm + TVplus) and local radio (Rnm, Radio Haja, Dream'inn and Radio plus) provided media coverage
		Number of Radio events broadcasting	2	0	0%	4	200%	4	200%	
<b>Activity 4.3. Documentaries conception and edition</b>										
4.3.1	Edition documents and tools for technicians and farmers	Number of document and tools pack edited	1	0	0%	1	100%	1	100%	Editing of voucher books for young plants to avoid monetary circulation during the reforestation processes promoted by the project.
4.3.2	Editing of films for each project events	Number of films	5	0	0%		0%	-	0%	En cours de tournage
4.3.3	Capitalization leaflets	Number of capitalization leaflets	1	0	0%		0%	-	0%	
<b>5. PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)</b>										
<b>Activity 5.1. PMU officials recruited</b>										
5.1.1	National Technical Assistant (Project Leader)	Months	14	3	21%	3	21%	6,0	43%	Current project activity.
5.1.2	Assistant of project leader	Months	14	3	21%	3	21%	6,0	43%	
5.1.3	Technician Agroecology (Highland+Middle West) (6 technicians)	Months	84	18	21%	18	21%	36,0	43%	
<b>Activity 5.2. GSDM Backstopping fully implemented by his key staff</b>										
5.2.1	Director (2 months per year)	Months	2,2	0,5	0,2	0,5	23%	1,0	45%	Current project activity.
5.2.2	Agronomist (2 months per year)	Months	2,2	0,5	0,2	0,5	23%	1,0	45%	
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Hasina)	Months	4,3	1,0	0,2	1,0	23%	2,0	47%	
5.2.4	Agro economist (2 months per year)	Months	2,2	0,5	0,2	0,5	23%	1,0	45%	
5.2.5	Communication Officer (2 months per year)	Months	2,2	0,5	0,2	0,5	23%	1,0	45%	
5.2.6	Agronomist Vakinankaratra (2 months per year)	Months	2,2	0,5	0,2	0,5	23%	1,0	45%	
<b>Activity 5.3. Local missions</b>										
5.3.1	Per diem for GSDM national staff	Days	150	0	0%	76	51%	76	51%	
5.3.2	Per diem for local staff	Days	50	10	20%	16	32%	26	52%	> An exchange visit between technicians was organized on the Vakinankaratra Highlands in July 2020 in order to standardize activities on the ground. During this visit, the 04 technicians from the Middle West were compensated. > Mission of the 02 project agronomists in Antananarivo: COPIL meeting and meeting with the GSDM board on the technical and financial procedure manual.

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
<b>Activity 5.4.</b>	<b>Mean and equipments implementation</b>									
<b>5.4.3</b>	<b>Offices renting and communication</b>									
5.4.3.1	Regional office renting	month	14	3	21%	3	21%	6	43%	Current project activity.
<b>5.4.4</b>	<b>Equipments</b>									
5.4.4.1	PC/laptop	Unit	0	0	0%	0	0%	-	0%	
5.4.4.2	Printers/scanner/photocopiers	Unit	0	0	0%	0	0%	-	0%	Activity already realized during year 1.
5.4.4.3	Digital camera	Unit	0	0	0%	0	0%	-	0%	Activity already realized during year 1.
5.4.4.4	Vidéoprojecteurs + screens	Unit	0	0	0%	0	0%	-	0%	Activity already realized during year 1.
5.4.4.5	Hard disks	Unit	0	0	0%	0	0%	-	0%	Activity already realized during year 1.
5.4.4.6	Other equipments (flat rate per technician)	Per technician	0	0	0%	0	0%	-	0%	Activity already realized during year 1.
5.4.4.7	Communication/courier and other coordination expenses	Unit	1	0,25	25%	0,25	25%	0,50	50%	Current project activity.
<b>5.4.5</b>	<b>Spare parts for hard ware and other office machineries</b>									
5.4.5.1	Spares (hard ware, photocopiers etc.)	year	1	0,25	25%	0,25	25%	0,50	50%	Current project activity.
<b>6.</b>	<b>PPROJECT OVERSIGHT</b>									
<b>Activity 6.1.</b>	<b>Steering committee</b>									
6.1.1	Steering committee establishment	Steering committee established	-	0	0%	0	0%	-	0%	Activity already achieved during year 1.
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	Number of steering committee meetings	1	1	100%	0	0%	1	100%	Activity already achieved during the previous quarter
<b>Activity 6.2.</b>	<b>Monitoring and Evaluation of the project</b>									
6.2.1	Base line study through external expertise	One base line study	0	0	0%	0	0%	-	0%	Activity already realized in year 2
6.2.2	Financial auditing	Financial auditing (one per year by COMESA)	1	0	0%	0	0%	-	0%	
6.2.3	Bi-annual reportings	Semestrial report (1st : 1 per year)	1	0	0%	0	0%	-	0%	
6.2.4	Annual reportings	Annual report (including semestrial 2 report)	1	0	0%	1	100%	1	100%	
6.2.5	Mid-term evaluation through external expertise	One Mid-term evaluation	1	0	0%	1	100%	1	100%	The group of consultants mandated for the mid-term evaluation of the project has already presented its provisional report on this study to the executive management of the GSDM, and then to the Board of Directors of the GSDM. The final report is in progress.
6.2.6	Final evaluation through external expertise	One Final evaluation	1	0	0%	0	0%	-	0%	
6.2.7	Car hiring for monitoring and evaluation	Number of car hiring days	15	0	0%	0	0%	-	0%	
<b>Activity 6.3.</b>	<b>Project achievements capitalization</b>									

Budget acc.	Expected Result / Planned Activities	Indicator	Target (Year 3)	Previous achievements (Trim 9)		Achievement of the Trim 10		Cumulative achievements (Year 3)		Remarks / Challenges
				Ach.	%	Ach.	%	Ach.	%	
6.3.1	Project capitalization report	Number of capitalization report	1	0	0%	0	0%	-	0%	

### Appendix 3 : Financial Performance

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
1.	<b>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</b>	280 039,47	329 552,89	221 448,39	187 818,34	18 693,87	18 693,87	206 512,21	248 532,65	75,42%	62,66%
Activity 1.1	<b>Conduct awareness raising, advocacy, exchanges visits and field days to facilitate experiences sharing and learning between beneficiaries</b>	19 736,85	21 157,55	10 084,65	14 072,16	442,28	442,28	14 514,44	14 514,44	68,60%	68,60%
1.1.1	Inception workshop and other advocacys (TFP, journalists,...)	10 526,32	2 197,70	4 411,94	4 411,94	-	-	4 411,94	4 411,94	200,75%	200,75%
1.1.2	Exchanges visites between & inside communes	1 315,79	12 008,01	882,61	4 870,11	442,28	442,28	5 312,39	5 312,39	44,24%	44,24%
1.1.3	Car hiring and other expenses during awareness raising	7 894,74	6 951,84	4 311,84	4 311,84	-	-	4 311,84	4 311,84	62,02%	62,02%
Activity 1.2	<b>Upscale Conservation Agriculture to support the growing of up land rice and other crops</b>	26 315,79	46 037,48	24 045,11	26 011,16	10 914,42	10 914,42	36 925,58	36 925,58	80,21%	80,21%
1.2.1	Provides seeds of cover crops (mucuna, stylosanthes, cowpea...)	19 736,84	42 090,11	24 045,11	26 011,16	10 914,42	10 914,42	36 925,58	36 925,58	87,73%	87,73%
1.2.2	Support for Stylosanthes rollers	6 578,95	3 947,37	-	-	-	-	-	-	0,00%	0,00%

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
<b>Activity 1.3</b>	<b>Upscale agroforestry and forestation (equipment and seed support to nurseryman and adopting farmers)</b>	<b>113 552,63</b>	<b>123 242,07</b>	<b>121 324,61</b>	<b>79 453,83</b>	<b>1 074,46</b>	<b>1 074,46</b>	<b>80 528,30</b>	<b>123 213,35</b>	<b>99,98%</b>	<b>65,34%</b>
1.3.1	Support tree nurserimen (potting bags, other materials...)	7 894,74	1 339,04	1 170,24	1 167,99	-	-	1 167,99	1 170,24	87,39%	87,23%
1.3.2	Support adopting farmers in tree plantlets for reforestation (Acacia, Eucalyptus...)	78 947,37	109 896,51	114 883,19	72 200,38	-	-	72 200,38	114 883,19	104,54%	65,70%
1.3.3	Support adopting farmers in fruit plantlets	16 447,36	6 585,20	2 593,89	3 295,73	-	-	3 295,73	3 295,73	50,05%	50,05%
1.3.4	Provides seeds of hedgerow (Cajanus, Tephrosia...)	10 263,16	5 421,31	2 677,29	2 789,73	1 074,46	1 074,46	3 864,20	3 864,20	71,28%	71,28%
<b>Activity 1.4</b>	<b>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...)</b>	<b>27 421,05</b>	<b>29 378,54</b>	<b>13 005,80</b>	<b>14 078,62</b>	<b>1 333,16</b>	<b>1 333,16</b>	<b>15 411,78</b>	<b>15 411,78</b>	<b>52,46%</b>	<b>52,46%</b>
1.4.1	Provide seeds of mucuna, crotalaire, others plants used as bio-pesticides/repellent plants (based on the experiences of BVPI, GSDM, CEFFEL)	5 789,47	2 161,23	947,48	1 332,28	-	-	1 332,28	1 332,28	61,64%	61,64%
1.4.2	Provide worms for composting	1 052,63	1 024,49	1 024,49	1 024,49	-	-	1 024,49	1 024,49	100,00%	100,00%

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
1.4.3	Participate to improve cowsheds for quality manure and composting	7 894,74	13 895,58	5 346,58	5 346,58	-		5 346,58	5 346,58	38,48%	38,48%
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	10 315,79	9 928,82	5 366,32	5 366,32	1 139,43	1 139,43	6 505,75	6 505,75	65,52%	65,52%
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)	2 368,42	2 368,42	320,94	1 008,96	193,73	193,73	1 202,69	1 202,69	50,78%	50,78%
<b>Activity 1.5</b>	<b>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</b>	<b>39 000,00</b>	<b>40 052,63</b>	-	-	-	-	-	-	<b>0,00%</b>	<b>0,00%</b>
1.5.1	Contratc with a firm to conduct National survey in some strategic agro-écological areas	20 000,00	21 052,63	-	-	-	-	-	-	0,00%	0,00%
1.5.2	Integrate data in MANAMORA database - and include database improvement by contratcing with CIRAD	15 000,00	15 000,00	-	-	-	-	-	-	0,00%	0,00%
1.5.3	Train regional directorates of MPAE (DRAE) in the use of the data base MANAMORA		-	-	-	-	-	-	-		

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
1.5.4	National database transfert to DRAE (Ministry regional branch)	4 000,00	4 000,00	-	-	-	-	-	-	0,00%	0,00%
<b>Activity 1.6</b>	<b>Purchase principal mean for upscaling activity</b>	<b>54 013,15</b>	<b>69 684,62</b>	<b>52 988,22</b>	<b>54 202,57</b>	<b>4 929,55</b>	<b>4 929,55</b>	<b>59 132,12</b>	<b>58 467,50</b>	<b>83,90%</b>	<b>84,86%</b>
<b>1.6.1</b>	<b>Purchase of Equipments</b>	<b>25 000,00</b>	<b>26 318,53</b>	<b>26 318,53</b>	<b>26 318,53</b>	-	-	<b>26 318,53</b>	<b>26 318,53</b>	<b>100,00%</b>	<b>100,00%</b>
1.6.1.1	Purchase of motorcycles	21 052,63	22 125,68	22 125,68	22 125,68	-	-	22 125,68	22 125,68	100,00%	100,00%
1.6.1.2	Purchase of bicycles	3 947,37	4 192,85	4 192,85	4 192,85	-	-	4 192,85	4 192,85	100,00%	100,00%
<b>1.6.2</b>	<b>Fuel and repairs</b>	<b>29 013,15</b>	<b>43 366,09</b>	<b>26 669,69</b>	<b>27 884,04</b>	<b>4 929,55</b>	<b>4 929,55</b>	<b>32 813,59</b>	<b>32 148,97</b>	<b>74,13%</b>	<b>75,67%</b>
1.6.2.1	Fuel and repairs (spare parts) for motorcycle	19 539,47	37 102,95	24 256,27	24 920,90	4 929,55	4 929,55	29 850,45	29 185,83	78,66%	80,45%
1.6.2.2	Car hiring for field backstopping and monitoring (all CSA: CA, Agroforestry and best practices)	9 473,68	6 263,14	2 413,42	2 963,14	-	-	2 963,14	2 963,14	47,31%	47,31%
<b>2.</b>	<b>RESULT 2 : Capacity of various stakeholders is built in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>	<b>103 022,11</b>	<b>88 857,87</b>	<b>80 724,34</b>	<b>53 333,26</b>	<b>14 690,11</b>	<b>8 851,53</b>	<b>68 023,37</b>	<b>78 177,02</b>	<b>87,98%</b>	<b>76,55%</b>
<b>Activity 2.1</b>	<b>Train nursymen in the technology of tree nurseries and in the choice of the appropriate tree species</b>	<b>2 302,63</b>	-	-	-	-	-	-	-		
2.1.1	Train Nurserymen/women	2 302,63	-	-	-	-	-	-	-		
<b>Activity 2.2</b>	<b>Train lead farmers and farmers in CSA (CA, agroforestry and</b>	<b>33 157,89</b>	<b>32 827,94</b>	<b>21 101,06</b>	<b>21 299,50</b>	<b>2 676,16</b>	<b>4 000,50</b>	<b>23 975,66</b>	<b>25 101,56</b>	<b>76,46%</b>	<b>73,03%</b>

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
	<b>forestation, other good practices)</b>										
2.2.1	Train Lead farmers (LF) by technicians and other stakeholders	-	1 769,06	1 776,56	1 769,06	-	-	1 769,06	1 776,56	100,42%	100,00%
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)	33 157,89	31 058,88	19 324,50	19 530,44	2 676,16	4 000,50	22 206,60	23 325,00	75,10%	71,50%
<b>Activity 2.3</b>	<b>Train secondary school students in CSA (CA, Agroforestry and forestation, other good practices)</b>	<b>46 117,63</b>	<b>41 492,71</b>	<b>35 981,93</b>	<b>29 017,82</b>	<b>10 803,11</b>	<b>3 640,19</b>	<b>39 820,92</b>	<b>39 789,05</b>	<b>95,89%</b>	<b>95,97%</b>
2.3.1	Make Diagnosis to select beneficiary schools	185,26	150,92	150,92	150,92	-	-	150,92	150,92	100,00%	100,00%
2.3.2	Organize Events (Commitment charte event, Tools delivery)	370,53	2 033,74	1 879,80	2 033,74	-	-	2 033,74	2 033,74	100,00%	100,00%
2.3.3	Organize Training for Ministry Branch (OEMC/DREMC/BEMC)	131,58	355,13	355,12	355,13	-	-	355,13	355,12	100,00%	100,00%
2.3.4	Organize Training for teachers (3 sessions of training in Vakinankaratra)	5 292,63	2 676,91		2 676,91	-	-	2 676,91	2 676,91	100,00%	100,00%
2.3.5	Training Tools (tarpaulin, booklet, teacher guideline, langage-photo) - 6 new schools	3 806,05	8 012,29	7 276,26	6 959,66	345,73	345,73	7 305,38	7 621,99	95,13%	91,18%
2.3.6	Produce and edit Communication tools (tarpaulin, Roll up)	210,53	205,21	-	99,95	-	-	99,95	-	0,00%	48,71%

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
2.3.7	Produce Film for communication	3 684,21	487,26	487,26	487,26	-	-	487,26	487,26	100,00%	100,00%
2.3.8	Produce Cartoon strips for school children	10 000,00	17 491,25	17 491,25	10 576,89	7 162,92	-	17 739,81	17 491,25	100,00%	101,42%
2.3.9	Provide some kits and inputs for demonstration plot (Materials and tools, Teaching Tools, inputs) for 6 new school	3 857,89	1 525,09	1 051,57	1 064,57	218,07	218,07	1 282,63	1 282,63	84,10%	84,10%
2.3.10	Accompany students in the implementation	-	-	-	-	-	-	-	-		
2.3.11	Organise competition of best school (demonstration plot and student knowledge)	421,05	526,32	-	-	-	-	-	-	0,00%	0,00%
2.3.12	Exchange visits between School	5 526,32	1 233,18	759,50	759,50	-	-	759,50	759,50	61,59%	61,59%
2.3.13	Organize annual workshop (capitalisation, experiences exchange)	6 315,79	3 106,22	1 264,12	1 264,12	2 079,39	2 079,39	3 343,51	3 343,51	107,64%	107,64%
2.3.14	Car hiring for training, monitoring and other actions fo secondary school	6 315,79	3 689,18	2 589,21	2 589,18	997,00	997,00	3 586,18	3 586,21	97,21%	97,21%
<b>Activity 2.4.</b>	<b>Organise training sessions targeting development actors such as farmers organisations, NGO and services providers</b>	<b>5 842,11</b>	<b>3 951,58</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0,00%</b>	<b>0,00%</b>
2.4.1	Organize training sessions targeting development actors as farmers organizations, NGO, local service provider	3 947,37	2 631,58	-	-	-	-	-	-	0,00%	0,00%

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
2.4.2	Organize exchange visit in the training sites of GSDM		-	-	-	-	-	-	-		
2.4.3	Car hiring during training sessions (6 days per session)	1 894,74	1 320,00	-	-	-	-	-	-	0,00%	0,00%
<b>Activity 2.5</b>	<b>Involve regional Directorate of Meteorology in Climate smart Agriculture Conservation Agriculture and Agroforestry</b>	<b>7 707,11</b>	<b>2 690,91</b>	<b>13 665,62</b>	<b>978,69</b>	<b>-</b>	<b>-</b>	<b>978,69</b>	<b>7 345,70</b>	<b>272,98%</b>	<b>36,37%</b>
2.5.1	Organize Information/sensitization of local stakeholders	789,47	685,32	211,64	422,16	-	-	422,16	422,16	61,60%	61,60%
2.5.2	Organize Training workshop for local stakeholders	4 497,64	766,97	9 325,34	-	-	-	-	4 662,67	607,93%	0,00%
2.5.3	Provide regional Meteorological information bulletins (quarterly)	421,05	748,72	1 755,32	409,60	-	-	409,60	1 019,49	136,16%	54,71%
2.5.4	Provide per diem for meteorological officer	1 998,95	489,89	2 373,31	146,93	-	-	146,93	1 241,38	253,40%	29,99%
<b>Activity 2.6</b>	<b>Involve the Ministry of Agriculture and livestock (MPAE) and Ministry of Environment and Forestry (MEEF) or regional directorates</b>	<b>7 894,74</b>	<b>6 315,79</b>	<b>9 975,74</b>	<b>2 037,26</b>	<b>1 210,84</b>	<b>1 210,84</b>	<b>3 248,10</b>	<b>5 940,70</b>	<b>94,06%</b>	<b>51,43%</b>
2.6.1	Organize field collaboration and exchange by MPAE + MEEF	2 368,42	789,47	-	-	-	-	-	-	0,00%	0,00%
2.6.2	Organize field collaboration and exchange by regional directorates ( DRAE + DREEF)	5 526,32	5 526,32	9 975,74	2 037,26	1 210,84	1 210,84	3 248,10	5 940,70	107,50%	58,78%
<b>Activity 2.7</b>	<b>Participate to CSA integration into public policies</b>	<b>-</b>	<b>1 578,95</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0,00%</b>	<b>0,00%</b>

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSE D € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGE D/ Budget Realloc	% DISBURS ED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
2.7.1	Participate to workshops or meeting to advocate CSA (no cost)		789,47	-	-	-	-	-	-	0,00%	0,00%
2.7.2	Participate to workshops or meeting on climate change to advocate CSA (no cost)		789,47	-	-	-	-	-	-	0,00%	0,00%
<b>3.</b>	<b>RESULT 3 : Farmers organisations are supported and linked to various stakeholders in the Agriculture to support sustainability of the project results</b>	<b>32 512,20</b>	<b>25 614,84</b>	<b>18 925,04</b>	<b>7 188,74</b>	<b>-</b>	<b>-</b>	<b>7 188,74</b>	<b>12 278,26</b>	<b>47,93%</b>	<b>28,06%</b>
<b>Activity 3.1.</b>	<b>Support FOs to participate in the development of National Action Plan for Climate Change as well as other Climate Change Frameworks</b>	<b>3 692,47</b>	<b>1 491,89</b>	<b>141,60</b>	<b>141,60</b>	<b>-</b>	<b>-</b>	<b>141,60</b>	<b>141,60</b>	<b>9,49%</b>	<b>9,49%</b>
3.1.1	Organize awareness raising on Climate Change targeting development actors as farmers organizations, NGO, local service provider	3 060,89	1 161,89	141,60	141,60	-	-	141,60	141,60	12,19%	12,19%
3.1.2	Car hiring during training sessions (2 days per session)	631,58	330,00	-	-	-	-	-	-	0,00%	0,00%
<b>Activity 3.2</b>	<b>Sharing experience at the regional level (COMESA and other regions) integrating political actors and development actors</b>	<b>9 161,84</b>	<b>11 478,26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0,00%</b>	<b>0,00%</b>
3.2.1		9 161,84	11 478,26	-	-	-	-	-	-	0,00%	0,00%

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		PROJECT DOC	PROJECT REALLOC								
	Organize exchange visits targeting policy makers, development actors (technicians) and farmers in COMESA and other regions		-	-	-	-	-	-	-		
<b>Activity 3.3.</b>	<b>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</b>	-	-	-	-	-	-	-	-		
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		-	-	-	-	-	-	-		
<b>Activity 3.4.</b>	<b>Ensure that the FOs obtain permanent utilization of the Agricultural Service Provider (state promoted development mechanisms in national level) to make a link between the</b>	<b>1 500,00</b>	<b>953,37</b>	<b>453,37</b>	<b>453,37</b>	<b>-</b>	<b>-</b>	<b>453,37</b>	<b>453,37</b>	<b>47,55%</b>	<b>47,55%</b>

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		PROJECT DOC	PROJECT REALLOC								
	<b>farmers and the agricultural services</b>										
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	1 500,00	953,37	453,37	453,37	-	-	453,37	453,37	47,55%	47,55%
<b>Activity 3.5.</b>	<b>Support FOs on their collaborative contracting with various partners such as APDRA, FIFAMANOR, CEFFEL, AVSF, AGRISUD and PAPAM in various interventions</b>	<b>18 157,89</b>	<b>11 691,31</b>	<b>18 330,07</b>	<b>6 593,77</b>	<b>-</b>	<b>-</b>	<b>6 593,77</b>	<b>11 683,29</b>	<b>99,93%</b>	<b>56,40%</b>
3.5.1	Built capacity of FOs on rice/fish ecosystem by contracting with APDRA	3 421,06	3 706,71	5 631,38	2 463,73	-		2 463,73	3 519,61	94,95%	66,47%
3.5.2	Built capacity of FOs on dairy cattle and forages by contracting with FIFAMANOR	5 263,16	6 159,77	9 220,81	2 305,20	-		2 305,20	5 763,00	93,56%	37,42%
3.5.3	Built capacity of FOs on market gardening and livestock by contracting with AVSF (targeting mainly women)	3 157,89		-	-	-		-	-		

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		PROJECT DOC	PROJECT REALLOC								
3.5.4	Built capacity of FOs on FFS School approach as developed by PAPAM project by AGRISUD	3 157,89		-	-	-		-	-		
3.5.5	Built capacity of FOs on Best practices, bio-pesticides and fruit trees by contracting with CEFFEL	3 157,89	1 824,84	3 477,89	1 824,84	-		1 824,84	2 400,67	131,56%	100,00%
<b>4.</b>	<b>COMMUNICATION AND VISIBILITY</b>	<b>50 235,86</b>	<b>36 807,93</b>	<b>16 064,71</b>	<b>21 603,24</b>	<b>2 832,58</b>	<b>2 832,58</b>	<b>24 435,82</b>	<b>24 435,82</b>	<b>66,39%</b>	<b>66,39%</b>
<b>Activity 4.1.</b>	<b>Visibility and communication events organization</b>	<b>19 483,86</b>	<b>14 449,66</b>	<b>8 637,05</b>	<b>13 236,86</b>	<b>76,21</b>	<b>76,21</b>	<b>13 313,07</b>	<b>13 313,07</b>	<b>92,13%</b>	<b>92,13%</b>
4.1.1	Organization of regional field days targeting government authorities and development actors	12 493,43	6 633,50	4 692,00	6 909,36	-	-	6 909,36	6 909,36	104,16%	104,16%
4.1.2	Conception of other Communication tools as streamers, roll up and mass communication	168,66	2 610,71	2 610,71	2 610,71	76,21	76,21	2 686,92	2 686,92	102,92%	102,92%
		505,98	168,66	-	-	-	-	-	-	0,00%	0,00%
4.1.3	Car hiring for all communication and visibility action	6 315,79	5 036,79	1 334,33	3 716,79	-	-	3 716,79	3 716,79	73,79%	73,79%
<b>Activity 4.2.</b>	<b>Publications and broadcasting</b>	<b>5 363,84</b>	<b>1 971,49</b>	<b>424,87</b>	<b>913,81</b>	<b>-</b>	<b>-</b>	<b>913,81</b>	<b>913,81</b>	<b>46,35%</b>	<b>46,35%</b>
4.2.1	Broadcasting on national TV	3 165,00	-	-	-	-	-	-	-		
4.2.2	Broadcasting on national Radio	999,47	-	-	-	-	-	-	-		
4.2.3	Expenses related to attendance of journalists or reproters in events for publication on TV or newspapers	1 199,37	399,79	-	-	-	-	-	-	0,00%	0,00%
		-	1 571,70	424,87	913,81	-	-	913,81	913,81	58,14%	58,14%
		-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-		

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		PROJECT DOC	PROJECT REALLOC								
<b>Activity 4.3.</b>	<b>Documentaries conception and edition</b>	<b>25 388,16</b>	<b>20 386,78</b>	<b>7 002,79</b>	<b>7 452,57</b>	<b>2 756,37</b>	<b>2 756,37</b>	<b>10 208,94</b>	<b>10 208,94</b>	<b>50,08%</b>	<b>50,08%</b>
4.3.1	Edition documents and tools for technicians and farmers	2 368,42	4 163,57	3 334,63	3 334,63	1 417,04	1 417,04	4 751,67	4 751,67	114,12%	114,12%
4.3.2	Editing of films for each project events	12 493,42	5 696,89	3 668,17	4 117,94	1 339,33	1 339,33	5 457,27	5 457,27	95,79%	95,79%
4.3.3	Capitalization leaflets	10 526,32	10 526,32	-	-	-	-	-	-	0,00%	0,00%
<b>5.</b>	<b>PROJECT ADMINISTRATION (HUMAN AND EQUIPEMENTS)</b>	<b>168 093,87</b>	<b>165 057,26</b>	<b>110 007,59</b>	<b>106 281,91</b>	<b>17 384,12</b>	<b>17 384,12</b>	<b>123 666,03</b>	<b>128 381,45</b>	<b>77,78%</b>	<b>74,92%</b>
<b>Activity 5.1.</b>	<b>PMU officials recruited</b>	<b>89 447,37</b>	<b>92 515,31</b>	<b>58 696,53</b>	<b>57 921,34</b>	<b>10 219,58</b>	<b>10 219,58</b>	<b>68 140,92</b>	<b>68 916,11</b>	<b>74,49%</b>	<b>73,65%</b>
5.1.1	project Leader	21 710,53	22 685,71	14 311,89	14 374,27	2 554,18	2 554,18	16 928,44	16 866,07	74,35%	74,62%
5.1.2	Assitant of project leader	15 631,58	18 386,64	11 710,68	11 227,77	2 162,94	2 162,94	13 390,71	13 873,62	75,45%	72,83%
5.1.3	Technicians (Highland+Middle West) (6 technicians)	52 105,26	51 442,96	32 673,95	32 319,30	5 502,47	5 502,47	37 821,77	38 176,42	74,21%	73,52%
<b>Activity 5.2.</b>	<b>GSDM Backstopping fully implemented by his key staff</b>	<b>43 240,04</b>	<b>39 799,86</b>	<b>26 840,39</b>	<b>23 983,60</b>	<b>4 996,58</b>	<b>4 996,58</b>	<b>28 980,19</b>	<b>31 836,97</b>	<b>79,99%</b>	<b>72,81%</b>
5.2.1	Director (2 months per year)	11 126,53	11 076,79	7 923,68	7 043,27	1 467,35	1 467,35	8 510,62	9 391,03	84,78%	76,83%
5.2.2	Agronomist (2 months per year)	5 352,25	5 328,33	3 811,57	3 388,07	705,85	705,85	4 093,91	4 517,42	84,78%	76,83%
5.2.3	Trainers agronomists (2 months per year per trainer): 2 trainers (Martin and Célestin)	10 704,51	7 409,76	3 811,57	3 388,07	705,85	705,85	4 093,91	4 517,42	60,97%	55,25%
5.2.4	Agro economist (2 months per year)	5 352,25	5 328,33	3 811,57	3 388,07	705,85	705,85	4 093,91	4 517,42	84,78%	76,83%
5.2.5	Communication Officer (2 months per year)	5 352,25	5 328,33	3 670,40	3 388,07	705,85	705,85	4 093,91	4 376,25	82,13%	76,83%

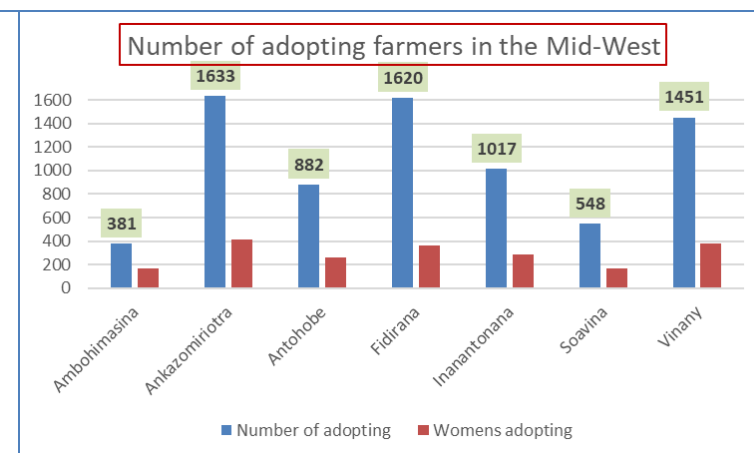
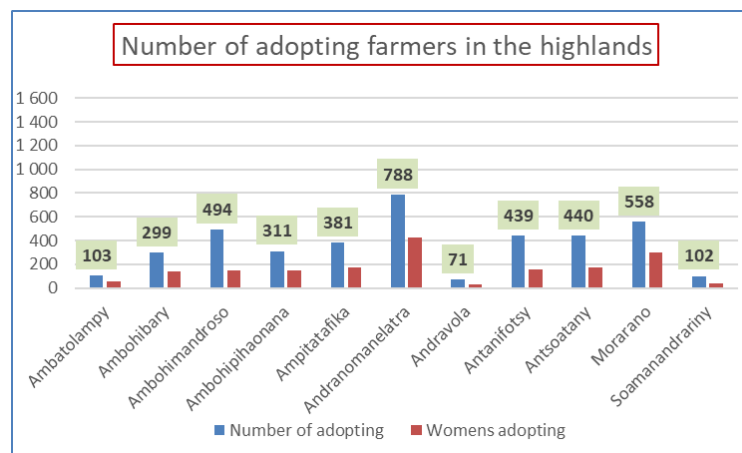
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		PROJECT DOC	PROJECT REALLOC								
5.2.6	Agronomist Vakinankaratra (2 months per year)	5 352,25	5 328,33	3 811,57	3 388,07	705,85	705,85	4 093,91	4 517,42	84,78%	76,83%
<b>Activity 5.3.</b>	<b>Local missions</b>	<b>15 789,48</b>	<b>10 845,85</b>	<b>7 131,19</b>	<b>6 382,57</b>	<b>837,53</b>	<b>837,53</b>	<b>7 220,10</b>	<b>7 968,72</b>	<b>73,47%</b>	<b>66,57%</b>
5.3.1	Per diem for GSDM national staff	11 842,11	8 095,37	5 157,66	4 588,95	825,03	825,03	5 413,98	5 982,70	73,90%	66,88%
5.3.2	Per diem for local staff	3 947,37	2 750,48	1 973,53	1 793,62	12,49	12,49	1 806,12	1 986,03	72,21%	65,67%
<b>Activity 5.4.</b>	<b>Mean and equipments implementation</b>	<b>19 616,98</b>	<b>21 896,25</b>	<b>17 339,49</b>	<b>17 994,40</b>	<b>1 330,42</b>	<b>1 330,42</b>	<b>19 324,82</b>	<b>19 659,65</b>	<b>89,79%</b>	<b>88,26%</b>
<b>5.4.3</b>	<b>Offices renting and communication</b>	<b>3 315,79</b>	<b>2 604,51</b>	<b>1 724,14</b>	<b>1 724,14</b>	<b>224,89</b>	<b>224,89</b>	<b>1 949,03</b>	<b>1 949,03</b>	<b>74,83%</b>	<b>74,83%</b>
5.4.3.1	Regional office renting	3 315,79	2 604,51	1 724,14	1 724,14	224,89	224,89	1 949,03	1 949,03	74,83%	74,83%
<b>5.4.4</b>	<b>Offices renting and communication</b>	<b>15 227,51</b>	<b>18 825,14</b>	<b>15 506,65</b>	<b>16 161,56</b>	<b>1 105,53</b>	<b>1 105,53</b>	<b>17 267,09</b>	<b>17 601,93</b>	<b>93,50%</b>	<b>91,72%</b>
5.4.4.1	PC/laptop	4 210,53	6 268,48	6 268,48	6 268,48	-	-	6 268,48	6 268,48	100,00%	100,00%
5.4.4.2	printers/scanner/photocopiers	552,63	604,38	604,39	604,38	-	-	604,38	604,39	100,00%	100,00%
5.4.4.3	Digital camera	947,37	852,10	852,02	852,10	-	-	852,10	852,02	99,99%	100,00%
5.4.4.4	videoprojectors + screens	2 105,26	1 405,72	1 405,80	1 405,72	-	-	1 405,72	1 405,80	100,01%	100,00%
5.4.4.5	hard disks	97,37	75,80	75,80	75,80	-	-	75,80	75,80	100,00%	100,00%
5.4.4.6	Other equipments (flat rate per technician)	552,63	993,97	1 347,54	1 012,71	-	-	1 012,71	1 347,54	135,57%	101,89%
5.4.4.7	Communication/courier and other coordination expenses	6 761,72	8 624,69	4 952,63	5 942,37	1 105,53	1 105,53	7 047,90	7 047,90	81,72%	81,72%
<b>5.4.5</b>	<b>Spare parts for hard ware and other office machineries</b>	<b>1 073,68</b>	<b>466,59</b>	<b>108,70</b>	<b>108,70</b>	<b>-</b>	<b>-</b>	<b>108,70</b>	<b>108,70</b>	<b>23,30%</b>	<b>23,30%</b>

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		PROJECT DOC	PROJECT REALLOC								
5.4.5.1	Spares (hard ware, photocopiers etc.)	1 073,68	466,59	108,70	108,70	-	-	108,70	108,70	23,30%	23,30%
<b>6.</b>	<b>PROJECT OVERSIGHT</b>	<b>45 789,27</b>	<b>37 583,60</b>	<b>32 197,85</b>	<b>5 018,50</b>	<b>14 169,58</b>	<b>986,01</b>	<b>19 188,07</b>	<b>23 684,61</b>	<b>63,02%</b>	<b>51,05%</b>
<b>Activity 6.1.</b>	<b>Steering committee</b>	<b>789,27</b>	<b>999,68</b>	<b>1 075,34</b>	<b>560,60</b>	<b>503,37</b>	<b>503,37</b>	<b>1 063,97</b>	<b>1 578,72</b>	<b>157,92%</b>	<b>106,43%</b>
6.1.1	Steering committee establishment		-	514,74	-	-	-	-	514,74		
6.1.2	Steering committee meetings to give strategic orientation and advice during all phases of the project	789,27	999,68	560,60	560,60	503,37	503,37	1 063,97	1 063,97	106,43%	106,43%
<b>Activity 6.2.</b>	<b>Monitoring and Evaluation of the project</b>	<b>45 000,00</b>	<b>34 616,21</b>	<b>31 015,68</b>	<b>4 351,08</b>	<b>13 183,57</b>	<b>-</b>	<b>17 534,64</b>	<b>21 516,43</b>	<b>62,16%</b>	<b>50,65%</b>
6.2.1	Base line study through external expertise	15 789,47	4 426,46	11 671,84	2 177,59	-	-	2 177,59	2 172,59	49,08%	49,19%
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	7 894,74	13 213,27	17 015,01	394,38	13 183,57	-	13 577,94	17 015,01	128,77%	102,76%
6.2.6	Final evaluation through external expertise	11 842,11	13 547,37	-	-	-	-	-	-	0,00%	0,00%
6.2.7	Car hiring for monitoring and evaluation	9 473,68	3 429,11	2 328,84	1 779,11	-	-	1 779,11	2 328,84	67,91%	51,88%
<b>Activity 6.3.</b>	<b>Project achievements capitalization</b>	<b>-</b>	<b>1 967,71</b>	<b>106,82</b>	<b>106,82</b>	<b>482,63</b>	<b>482,63</b>	<b>589,46</b>	<b>589,46</b>	<b>29,96%</b>	
6.3.1	Project capitalization report		1 967,71	106,82	106,82	482,63	482,63	589,46	589,46	29,96%	29,96%

Budget acc.	Planned Activities	Budget (€)	Budget (€)	TOTAL ENGAGED € (JULY 18- SEPT 20)	TOTAL DISBURSED € (JULY 18- SEPT 20)	TOTAL DISBURSED EURO (OCT 20 - DEC 20)	TOTAL ENGAGED EURO (OCT 20 - DEC 20)	TOTAL DISBURSED € (JULY 18- DEC 20)	TOTAL ENGAGED EURO (JUL 18 - DEC 20)	% ENGAGED / Budget Realloc	% DISBURSED / Budget Realloc
		PROJECT DOC	PROJECT REALLOC								
July 2018 to Dec 2020		679 692,79	683 474,40	479 367,92	381 243,98	67 770,26	48 748,11	449 014,24	515 489,80	75,42%	65,70%
7.2.1	Administrative charges	47 578,49	43 796,88	26 723,06	26 228,67	-	4 743,92	26 228,67	31 466,98	71,85%	59,89%
<b>YEAR 3 TOTAL REALLOC BUDGET (EUROS)</b>		<b>727 271,28</b>	<b>727 271,28</b>	<b>506 090,98</b>	<b>407 472,65</b>	<b>67 770,26</b>	<b>53 492,03</b>	<b>475 242,91</b>	<b>546 956,77</b>	<b>75,21%</b>	<b>65,35%</b>

## Appendix 4: Number of farmers adopting the agro-ecological technique

Communes d'intervention	Nombre d'adoptants		
	Total	Femme	%
Ambatolampy	103	59	57,3%
Ambohibary	299	141	47,2%
Ambohimandroso	494	152	30,8%
Ambohipihaonana	311	151	48,6%
Ampitatafika	381	170	44,6%
Andranomanelatra	788	427	54,2%
Andravola	71	33	46,5%
Antanifotsy	439	161	36,7%
Antsoatany	440	172	39,1%
Morarano	558	303	54,3%
Soamanandriny	102	39	38,2%
<b>Sous-total Hautes terres</b>	<b>3 986</b>	<b>1 808</b>	<b>45,4%</b>
Ambohimasina	381	168	44,1%
Ankazomiriotra	1 633	416	25,5%
Antohobe	882	262	29,7%
Fidirana	1 620	360	22,2%
Inanantonana	1 017	288	28,3%
Soavina	548	168	30,7%
Vinany	1 451	383	26,4%
<b>Sous-total Moyen Ouest</b>	<b>7 532</b>	<b>2 045</b>	<b>27,2%</b>
<b>Total général</b>	<b>11 518</b>	<b>3853</b>	<b>33,5%</b>



## Appendix 5: Cover crop seeds beneficiaries per Commune in 2020

Areas/ Communes	Quantité distribuée				Bénéficiaires		
	Avoine	Cajanus	Mucuna	Stylosanthes	Total	Femme	% femme
<b>Highland</b>	<b>634,5</b>	<b>1359</b>	<b>3047,25</b>		<b>637</b>	<b>350</b>	<b>54,9%</b>
Ambatolampy	10	37	84		19	15	78,9%
Ambohibary	73		156		40	31	77,5%
Ambohimandroso	79	186,5	461		83	24	28,9%
Ambohipihaonana	68	132	212		49	26	53,1%
Ampiatatfika	82	121	289		85	59	69,4%
Andranomanelatra	157	478	737,25		156	106	67,9%
Andravola		77,5	85		17	4	23,5%
Antanifotsy	8	88	246		50	27	54,0%
Antsoatany	46,5	70	303		44	16	36,4%
Morarano	111	93	324		49	28	57,1%
Soamanandrany		76	150		45	14	31,1%
<b>Midwest</b>		<b>682,5</b>	<b>1800</b>	<b>251,5</b>	<b>428</b>	<b>144</b>	<b>33,6%</b>
Ambohimasina		52	125	28	33	18	54,5%
Ankazomiriotra		140	207	19	66	19	28,8%
Antohobe		100	234	22	57	18	31,6%
Fidirana		242	404	64	87	18	20,7%
Inanantonana		46	330	11	75	26	34,7%
Soavina		51	142	5	38	17	44,7%
Vinany		51,5	358	102,5	72	28	38,9%
<b>Overall Total</b>	<b>634,5</b>	<b>2041,5</b>	<b>4847,25</b>	<b>251,5</b>	<b>1065</b>	<b>494</b>	<b>46,4%</b>

## Appendix 6: cumulative list of nurserymen who have worked with MANITATRA 2 since the start of the project

N°	Nom et prénoms	Genre	Localisation	Commune
1	RASOAMALALA Georgette	Femme	Ankazomiriotra II	Ankazomiriotra
2	RAVONIARISOA Julienne	Femme	Ankazomiriotra II	Ankazomiriotra
3	RAMARIALIMANANA Voahirana Nirina	Femme	Ankazomiriotra II	Ankazomiriotra
4	RAKOTONDRAISOA Fanja Harinaivo	Homme	Ankazomiriotra II	Ankazomiriotra
5	RAKOTONDRIANA Louis Pascal	Homme	Ankazomiriotra I	Ankazomiriotra
6	RANDRIANASOLO Faralahy	Homme	Ankazomiriotra I	Ankazomiriotra
7	RAVOMANANA Richard	Homme	Belanitra	Ankazomiriotra
8	LALAINA Farasoia Isabelle	Femme	Ankazomiriotra I	Ankazomiriotra
9	RAKOTONDRIANAIVO Jean Baptiste	Homme	Mazoto	Vinany
10	RAKOTONANAHARY Edmond	Homme	Mazoto	Vinany
11	KOPERATIVA Fanilo (Président : RANDRIAMANANTENA Guy)	Homme	Mazoto	Vinany
12	RABENANDRASANA Joseph	Homme	Ankamory	Vinany
13	RANDRIAMIANDRISOA Tokiniaina Ferdinand	Homme	Andromba	Vinany
14	RAKOTONIRINA Jean Noël	Homme	Ambatolahy	Vinany
15	RAKOTONDRIANAIVO Jean Louis Donné	Homme	Vinany	Vinany
16	RAFAMATANANTSOA Martin	Homme	Inanantonana	Inanantonana
17	RAKOTOMALALA Herisoa	Homme	Inanantonana	Inanantonana
18	RAZAFIMAHATRATRA Armand	Homme	Inanantonana	Inanantonana
19	RASOLOMANANA Justin	Homme	Ambatomainy	Inanantonana
20	RAKOTONJANAHARY Andriamiandrisoa Guy	Homme	Antanety Sud	Inanantonana
21	RAHANTARIMANANA Jacky Daniel	Homme	Mamoriomby	Fidirana
22	RAVELOMANANJAFY Hanta Jeannot	Homme	Mamoriomby	Fidirana
23	RAKOTOARIMANANA Daniel	Homme	Mamoriomby	Fidirana
24	RAKOTOMANANTSOA Modeste	Homme	Ambohibolakely	Fidirana
25	RAMANANDRAIBE Manampisoa Charlie	Femme	Fidirana	Fidirana
26	RANDRIAMANANTENA Jean Pierre	Homme	Soavina	Soavina

N°	Nom et prénoms	Genre	Localisation	Commune
27	NARINDRANJANAHARY Fitolahy Edmond	Homme	Antohobe	Antohobe
28	RAVONIARISOA Maminirina Odette	Femme	Ambohimasina	Ambohimasina
29	RAVOLAHANITRINIAINA Herinarindra	Femme	Ambohimasina	Ambohimasina
30	MAHASOA Maxi Léa Liliane	Homme	Fidirana	Tsaratanety/ Antampondravola
31	RABEMANANTSOA Augustin	Homme	Fidirana	Ankily/ Antampondravola
32	RASOLOMAMPIANINA Clémentine	Femme	Fidirana	Ambohimasikely
33	RAIVOARISOA Meline Juliette	Femme	Fidirana	Andrefatsena/ fidirana
34	RATOLOJANAHARY Simone André	Homme	Fidirana	Itrafo/Morafeno
35	RANDRIAMANANTENA Jules	Homme	Soavina	Antanety/ Antokofoana
36	RAKOTO Philippe	Homme	Soavina	Soavina
37	RANOAVOMANANA Morasata	Homme	Antohobe	Korosovola
38	RAKOTONIAINA Solomon	Homme	Antohobe	Matieloana
39	RAFANJANIRINA Jeanne Philomène	Femme	Antohobe	Antohobe
40	BEHASIMBOLA Mahasaky	Homme	Antohobe	Soavina II
41	Ramahazomanana Jean Aimé François	Homme	Antanimarina/ Ambanimaso I	Ambatolampy
42	Randriamampiadana Pascal	Homme	Andriamingodana	Morarano
43	Rasoarinarivo Odette	Femme	Ambinanibe	Andravola
44	Rafalimanana Lala Jean	Homme	Analava/Isody	Ambohimandroso
45	RANDRIAMIHAJASOA Bruno	Homme	Mahaketraka	Ambohimandroso
46	RAZAFINDRAVONY Laingo Maminirina	Femme	Masoandro	Ampitatafika
47	RATOLOJANAHARY Njaka Mamisoa Aimé	Homme	Lot 045 E Cité gara	Ampitatafika
48	RAKOTOASIMBOLA Andrianantenaina Desiré	Homme	Andriantsilahy	Antanifotsy
49	RASOAMAMPIONONA Honorine	Femme	Antanety II/ FKT Antemotra	Antanifotsy
50	RAMANANJATOVO Jeannot Roger	Homme	Ambilona 1	Soamanandrarinny
51	RAJAONARISON Noelinirina	Homme	Morarano I	Ambohibary
52	RANDRIANARISOA Etienne	Homme	Ampangabe	Antsoantany
53	RAZANAMASY Yvonne	Femme	Antsapanimahazo	Antsoantany
54	ANDRIANAIVO Jean Christian	Homme	Andranotsara	Andranomanelatra
55	RASOANANDRASANA Marie Odette	Femme		Andranomanelatra
56	RAKOTONDRANARY Roger	Homme	Andongambe Andranomanelatra	Andranomanelatra
57	RATOVONJANAHARY Vonjiniaina	Homme	Tsararano/ Tsarazamandimby	Andranomanelatra
58	RAFANIMEZANTSOA Jean De Dieu	Homme	Andranomanelatra	Andranomanelatra
59	Rakotondramary Roger	Homme	Andranomanelatra	Ambatomainty
60	Rasoanantenaina Theodile	Femme	Andranomanelatra	Andranotsara
61	Rajaosafara Harimalala Ida Odette	Femme	Ambohibary	Ampandraofana
62	Andriamiantsoa Aimé Jean Michel	Femme	Soamanandrarinny	Antanety
63	Ralaimidona Leonard Etienne	Femme	Antanifotsy	Antsahamaina
64	Haingoharitia Holiniana V.	Femme	Antanifotsy	Antemotra
65	Vololoniaina Linah Herintsoa Safidy	Femme	Ambohimandroso	Soavina
66	Rasoanandrasana Ina Jocelyny Noro	Femme	Ambatolampy	Antanimarina
67	Randrianotahianiaina Mamy Victor	Homme	Vinany	Ambohitromby
68	Andriantsiferana Olivier	Homme	Antohobe	Soavina 2
69	Rasoamampionona Clementine	Femme	Fidirana	Ambohimasikely
70	Rasoarimanan Myriame Isabelle	Femme	Fidirana	Fidirana
71	Kantonirina Fanoela	Femme	Ambohimasina	Marovitsika
72	Ranivonirina Olga Dauphine	Femme	Antanifotsy	Andriantsilahy

## Appendix 7 : Distribution of reforestation by Intervention commune

Commune	Nombre de pied	Nombre de parcelle	Adoptant	Femme	% Femmes
<b>H.T</b>	<b>337 421</b>	<b>1 141</b>	<b>709</b>	<b>244</b>	<b>34%</b>
Ambatolampy	1 595	2	1	1	100%
Ambohibary	16 445	76	38	26	68%
Ambohimandroso	69 565	125	84	19	23%
Ambohipihaonana	8 173	22	11	2	18%
Ampitatafika	43 075	155	135	49	36%
Andranomanelatra	70 169	346	172	70	41%
Andravola	660	2	1	0	0%
Antanifotsy	69 195	130	116	34	29%
Antsoatany	21 472	188	92	24	26%
Morarano	17 072	70	34	11	32%
Soamanandrarinny	20 000	25	25	8	32%
<b>M.O</b>	<b>757 630</b>	<b>4 741</b>	<b>2 427</b>	<b>498</b>	<b>21%</b>
Ambohimasina	51 095	274	136	40	29%
Ankazomiriotra	144 490	1 078	490	74	15%
Antohobe	94 435	702	450	105	23%
Fidirana	160 215	1 114	532	108	20%
Inanantonana	124 245	520	248	61	25%
Soavina	79 475	199	175	38	22%
Vinany	103 675	854	396	72	18%
<b>Total général</b>	<b>1 095 051</b>	<b>5 882</b>	<b>3 136</b>	<b>742</b>	<b>24%</b>

## Appendix 8: The fruit species chosen by the farmers supervised by the project this year

Espèce fruitière et rente	Nombre de pied	Adoptant	Femme	% Femme
<b>Arboriculture fruitière</b>	<b>3 045</b>	<b>235</b>	<b>110</b>	<b>46,8%</b>
Pêcher	597	104	51	49,0%
Agrume	594	106	45	42,5%
Poirier	463	76	32	42,1%
Plaqueminier (Kaki)	414	52	21	40,4%
Papayer	375	24	12	50,0%
Pommier	338	68	32	47,1%
Avocatier	62	10	4	40,0%
Bibassier	18	1	0	0,0%
Litchi	88	46	17	37,0%
Manguier	47	11	5	45,5%
Vigne	24	9	5	55,6%
Goavy Tsinahy	11	2	1	50,0%
Jacquier	7	2	2	100,0%
Prunier	4	2	2	100,0%
Chop	3	3	2	66,7%
<b>Culture de rente</b>	<b>3 884</b>	<b>91</b>	<b>36</b>	<b>39,6%</b>
Caféier	3844	91	36	39,6%
Ravitsara	40	1	0	0,0%
<b>Total général</b>	<b>6 929</b>	<b>299</b>	<b>132</b>	<b>44,1%</b>

## Appendix 9: Number of beneficiary students since the start of the project

Etablissement	Statut du Collège	Cisco	Nb Enseignants formés en AE	Nb d'élèves bénéficiaires			
				2017/18	2018/19	2019/20	2020/21
CEG Ihazolava	Public	Ambatolampy	3		160	212	323
CEG Ambohimandroso	Public	Antanifotsy	3		291	319	366
CEG Ampitatafika	Public	Antanifotsy	3		146	168	179
Lycée Privée Loterana - Antanifotsy	Privée	Antanifotsy	3		63	60	50
CEG Antsoatany	Public	Antsirabe II	3		122	172	223
CEG Tsaramasoandro - Antokofoana	Public	Betafo	3		176	169	247
<b>Sous-total ECOLE MANITATRA</b>			<b>18</b>	<b>0</b>	<b>958</b>	<b>1100</b>	<b>1388</b>
CEG Vinany	Public	Mandoto	6	253	200	165	226
CEG Ankazomiriotra	Public	Mandoto	5	160	179	179	259
CEG Betafo	Public	Betafo	25	200	126	1181	879
CEG Annexe Alakamisy Anativato	Public	Betafo	3	164	177	174	238
Collège Privé AINA	Privée	Antsirabe II	3	60	57	58	49
CEG Vinaninkarena	Public	Antsirabe II	3	170	198	190	166
<b>Sous-total ECOLE PAPAM</b>			<b>45</b>	<b>1007</b>	<b>937</b>	<b>1947</b>	<b>1817</b>
<b>TOTAUX</b>			<b>63</b>	<b>1007</b>	<b>1895</b>	<b>3047</b>	<b>3205</b>

## Appendix 10: CA Systems set up at CEG Ihazolava

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1,15	Maïs + Niébé	Maïs : 850 Niébé : 350	Riz pluvial sur mulch	2 950	Maïs + Cajanus
2	0,8	Jachère de Mucuna		Maïs + Niébé/Mucuna	Maïs : 1 290 Niébé : 375	Riz pluvial sur mulch
3	0,75	Jachère de Mucuna		Maïs + Mucuna	Maïs : 1 290	Riz pluvial sur mulch
4	0,45	Jachère de Mucuna		Riz pluvial sur mulch	4 222	Maïs + Mucuna

## Appendix 11: CA Systems set up at CEG Ampitatafika

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1,2	Jachère de Mucuna	625	Riz pluvial sur mulch	3733	Maïs + Mucuna
2	1,5	Maïs + Niébé	Maïs : 700 Niébé : 625	Riz pluvial sur mulch	3125	Mucuna en pure
3	1,5	Maïs + Mucuna	Maïs : 700 Mucuna : 375	Riz pluvial sur mulch	3333	Maïs + Niébé/Mucuna
4	2			Maïs + Mucuna		Riz pluvial sur mulch
5	2			Maïs + Niébé/Mucuna		Riz pluvial sur mulch

## Appendix 12: CA Systems implemented at the Private School Loterana Antanifotsy

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1,5	Maïs + Mucuna	Maïs : 2 330 Mucuna : 480	Riz pluvial sur mulch	4000	Maïs + Mucuna
2	1,5	Maïs + Niébé	Maïs : 2 330 Niébé : 470	Riz pluvial sur mulch	3867	Jachère de Mucuna
3	1,2	Jachère de Mucuna	480	Riz pluvial sur mulch	4083	Maïs + Niébé/Mucuna
4	2			Maïs + Niébé/Mucuna	Maïs : 1 000 Niébé : 500	Riz pluvial sur mulch
5	2			Maïs + Mucuna	1500	Riz pluvial sur mulch
6	2			Jachère de Mucuna		Riz pluvial sur mulch
7	2			Riz pluvial + Cajanus	3529	Maïs + Niébé/Mucuna

## Appendix 13: CA Systems set up at CEG Antsoatany

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1,3	Maïs + Niébé	Maïs : 750 Mucuna : 350	Riz pluvial sur mulch	4430	Jachère de Mucuna
2	1	Jachère de Mucuna		Riz pluvial sur mulch	5560	Maïs + Niébé/Mucuna
3	1,4	Maïs + Mucuna	Maïs : 700	Riz pluvial + Cajanus	5320	Maïs + Mucuna

## Appendix 14: CA Systems set up at CEG Antokofoana

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1	Maïs + Niébé/Mucuna	Maïs : 2 500 Mucuna : 500	Riz pluvial sur mulch	0	Maïs + Niébé/Mucuna
2	1	Jachère de Mucuna	400	Riz pluvial sur mulch	0	Maïs + Niébé/Mucuna
3	0,8	Riz pluvial + Stylosanthes	3 500	Jachère de Stylosanthes	0	Riz pluvial sur mulch

### Appendix 15: CA Systems implemented at the AINA Vinaninkarena Private Colleague

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	2	Maïs + Niébé/Mucuna	Maïs : 2 900 Mucuna : 400	Riz pluvial sur mulch	3 000	Maïs + Haricot/Mucuna	Maïs : 4 000 Haricot : 900	Riz pluvial sur mulch
2	2	Jachère de Mucuna	800	Riz pluvial sur mulch	2 750	Maïs + Haricot/Mucuna	Maïs : 4 200 Soja : 1 000	Riz pluvial sur mulch

### Appendix 16: CA Systems implemented at CEG Vinaninkarena

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	2	Maïs + Niébé/Mucuna	Maïs : 1 300 Mucuna : 300	Riz pluvial sur mulch	2 400	Maïs + Haricot/Mucuna	Maïs : 3 200 Soja : 500	Riz pluvial sur mulch
2	2	Jachère de Mucuna	500	Riz pluvial sur mulch	2 900	Maïs + Haricot/Mucuna	Maïs : 3 700 Haricot : 700	Riz pluvial sur mulch

### Appendix 17: CA Systems set up at CEG Annex Alakamisy Anativato

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	0,65	Maïs + Niébé/Mucuna	Maïs : 1 200 Mucuna : 500	Maïs + Niébé	2 800	Maïs + Soja/Mucuna	Maïs : 1 924 Soja : 308	Riz pluvial sur mulch
2	0,65	Jachère de Mucuna	500	Riz pluvial sur mulch	3 500	Maïs + Mucuna	Maïs : 1 924	Riz pluvial sur mulch

### Appendix 18: CA Systems set up at CEG Betafo

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	0,65	Maïs + Niébé/Mucuna	Maïs : 1 100 Mucuna : 500	Riz pluvial sur mulch	0 (Grêle)	Maïs + Soja/Mucuna	Maïs : 2 308 Soja : 769	Riz pluvial sur mulch
2	0,65	Jachère de Mucuna	600	Riz pluvial sur mulch	0 (Grêle)	Maïs + Mucuna	Maïs : 2 308	Riz pluvial sur mulch
3	0,8	Caféier + Arachis		Caféier + Arachis		Caféier + Arachis		Caféier + Arachis

### Appendix 19: CA Systems set up at CEG Ankazomiriotra

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	2	Riz + Stylosanthes	2 300	Jachère de Stylosanthes		Jachère de Stylosanthes		Riz pluvial sur mulch
2	2	Maïs + Niébé/Mucuna	Maïs : 1 000 Niébé : 500	Maïs + Niébé	Maïs : 1 200	Riz + Cajanus	3700	Maïs + Niébé/Mucuna
3	2	Jachère de Mucuna	900	Riz pluvial sur mulch	2 500	Maïs + Niébé/Mucuna	2300	Riz pluvial sur mulch

### Appendix 20: CA Systems set up at CEG Vinany

N° Parcelle	Superficie (are)	2017/2018		2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	2	Riz + Stylosanthes	5 700	Jachère de Stylosanthes	0	Riz pluvial sur mulch	3650	Maïs + Niébé/Mucuna
2	2	Maïs + Niébé/Mucuna	Maïs : 2 300 Niébé : 800	(Riz)-Haricot/Mucuna	0	Maïs + Niébé/Mucuna	3200	Riz pluvial sur mulch
3	2	Jachère de Mucuna	1 200	(Riz)-Haricot/Mucuna	0	Riz pluvial sur mulch	4100	Maïs + Niébé/Mucuna

### Appendix 21: CA Systems set up at CEG Ambohimandroso

N° Parcelle	Superficie (are)	2018/2019		2019/2020		2020/2021
		Systèmes	Rendement (kg/ha)	Systèmes	Rendement (kg/ha)	
1	1,2	Jachère de Mucuna	280	Riz pluvial sur mulch	5567	Maïs + Mucuna
2	1,5	Maïs + Niébé	Maïs : 500 Niébé : 400	Riz pluvial sur mulch	3636	Maïs + Mucuna
3	1,5	Maïs + Mucuna	280	Riz pluvial sur mulch	4607	Jachère de Mucuna
4	1			Jachère de Mucuna		Riz pluvial sur mulch
5	1			Maïs + Niébé		Riz pluvial sur mulch
6	1			Maïs + Mucuna		Riz pluvial sur mulch

## Appendix 22 : Summary of group sessions carried out since the start of the project

Sessions de groupe/ Commune	Réalizations précédentes				Réalisation Année 2020				Réalizations cumulatives			
	Nombre de session	Nb Participant	Nb Femme	% Femme	Nombre de session	Nb Participant	Nb Femme	% Femme	Nombre de session	Nb Participant	Nb Femme	% Femme
Information/ Communication/ Sensibilisation	163	5 691	2 225	39,1%	68	1 522	766	50,3%	231	7 213	2 991	41,5%
Formation PL	25	399	113	28,3%	12	252	68	0,0%	37	651	181	27,8%
Formation Adoptants	189	2 909	1 266	43,5%	107	1 496	730	48,8%	296	4 405	1 996	45,3%
Formation pépiniéristes	10	193	44	22,8%	0	0	0	0,0%	10	193	44	22,8%
Visite échange entre écoles	6	161	83	51,6%	12	345	181	0,0%	18	506	264	52,2%
Visite Echange Intra-Communale	183	3 461	1 622	46,9%	16	460	168	36,5%	199	3 921	1 790	45,7%
Visite Echange Extra-Communale	22	570	155	27,2%	174	2 978	1 349	45,3%	196	3 548	1 504	42,4%
<b>Total général</b>	<b>598</b>	<b>13 384</b>	<b>5 508</b>	<b>41,2%</b>	<b>389</b>	<b>7 053</b>	<b>3 262</b>	<b>46,2%</b>	<b>987</b>	<b>20 437</b>	<b>8 770</b>	<b>42,9%</b>