

Review of Norwegian support to FIFAMANOR

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1. INTRODUCTION

It is assessed that 70% of the population in Madagascar now lives below the poverty line. When Marc Ravalomanana became President of the Republic in 2002, Norway was one of the first countries to recognise the new regime. Ravalomanana soon proclaimed “rapid and durable development” and in collaboration with the World Bank, developed a Poverty Reduction Strategy Programme (PRSP), which was launched in 2003. The new government’s guiding policy is liberalisation of the economy and *Public and Private Partnership (3P)*. Priority has been given to development of infrastructure, construction of roads, rehabilitation of ports, and telecommunication. A new law of decentralisation reorganises the administration of the country into 22 regions, partly replacing the former six provinces. In the social sector, the government has emphasised strengthening of the national education system and has promised education for all within 2015. The president has also engaged himself in public health service and prevention of HIV/AIDS. In the economic sector, the government wants to increase international investments and has initiated a programme for exemption of taxes for certain goods, in order to promote investment. However, this action, combined with international circumstances, has led to galloping inflation. The value of the local currency has fallen to half of its former value during the government’s first three years in power.

The policy response to poverty has always been insufficient to address to poverty that exists in the country. The agricultural sector is the dominating economic sector in Madagascar, providing about 80% of the total employment and 80% of the export earnings. Productivity is generally low and food insecurity affects a high share of the population. The Malagasy PRSP points out agriculture and agricultural related industries as a prime focus in poverty reduction efforts.

The policies for strengthening the agricultural sector focus on the following issues:

- Improving the access of rural organisations (farmers and stockbreeders) to financing targeted to the rural population and enhancing the private sector development;
- Promoting research projects for the development of agriculture and animal husbandry;
- Increasing productivity so as to ensure food security;
- Promoting sustainable management of natural resources

The Malagasy government gives special emphasis on certain elements within the agricultural sector. These are: 1) Special plans for rapid expansion in the dairy production and on the critical lack of breeding animals. 2) Access of fertilisers at acceptable prices for the farmers. 3) Embargo of beef exports to Europe; non-existence of high quality slaughterhouses. 4) Re-establishing the pig-population.

The structural adjustments have significantly affected the conditions for agricultural production. This structural adjustment has been linked to the loans Madagascar has received from the World Bank to strengthen the country's infrastructure and small scale industry, to stimulate food production and to stabilize market prices. A major aim is to regulate the price of agricultural products by the market without restrictions or subsidies. A devaluation has been part of the structural adjustment policies and this has made import of inputs more costly. Fertiliser prices have therefore increased. On the other hand, conditions for export production have improved and

there is renewed interest for export of agricultural products from Madagascar. Green beans are one important product, but there is also export of potatoes to neighbouring countries.

The assistance to FIFAMANOR corresponds well with the general Norwegian development strategy focusing on poverty alleviation and creating conditions for economic development in the poorest countries. Since agriculture will be one of the priority sectors for Norwegian development cooperation in Madagascar, the FIFAMANOR-programme is well justified.

Agriculture has so far been the major sector in Norwegian cooperation with Madagascar over the last thirty years. There are still a lot of unsolved problems in Malagasy agriculture and rural poverty is still very widespread. Development and modernisation of agriculture is one of the main objectives of the Malagasy government, and presently major efforts are being made to improve the situation in rural areas. Several international donors are actively participating in this work.

As the current agreement between NORGES VEL and FIFAMANOR is coming to an end in 2005, an external review of the Project was planned so as to assess (i) FIFAMANOR's capacity in conducting the Project, (ii) its efficiency in achieving the objectives, (iii) the programme relevance and impacts, and (iv) the sustainability of the project and the long term funding options and the exit strategies for the donor.

The methodology used in this evaluation is based on reviewing existing documentation and interviews. The Annexes give an overview of the persons met and the itinerary of the team. The team met with General Secretary of the Ministry of Agriculture in Madagascar, Regional Director of Vakinankaratra, the General Director of FOFIFA, the regional representative of FAO, and conducted interviews with FIFAMANOR staff, ROVA, PRN, TIKO dairy of extension service, and held discussions with producers' organisations and/or individual producers. In addition, the team met with Norges Vel and the Norwegian Embassy in Madagascar.

2. FIFAMANOR IN BRIEF

FIFAMANOR was established in 1972 as a follow up to a bilateral agreement between the Malagasy and Norwegian governments, with the purpose of developing the Vakinankaratra area through promoting wheat, triticale and potato crops as well as milk production.

It was initially a project, but in 1992 it was transformed into a public utility company with financial and administrative autonomy. From the beginning of 1994 to June 1999, the livestock part was funded through the World Bank (PSE). Direct Norwegian funding was resumed in 2000.

FIFAMANOR is divided into five technical departments: research department, livestock department, extension department, seed production department and road construction department. These departments are under the authority of a director. Within the research department there are sections for tuber crops (including production of basic seeds), wheat, fodder crops, fodder laboratory and milk laboratory. There is also a section for agronomy and cultivation techniques that is not operational for the time being. The livestock department is responsible for the running

of the Armor farm and the insemination stations. The main objective of Armor is to produce PRN bulls for breeding purposes. The extension department consists of three sections: agriculture, livestock and social development. The seed production department is responsible for the production and sale of certified seeds. The Rural Tracks department/unit in charge of the rehabilitating rural tracks used for milk collection. *Agence Française pour le Développement* (AFD) has been funding the road construction project, but the funds for this work will end in June 2006.

FIFAMANOR has been financed 50% by NORAD and the rest by a financial contribution from the government of Madagascar. The Malagasy funds were generated through the sale of fertiliser given as a gift to Madagascar. FIFAMANOR has also received funding through the World Bank project Rural Development Support Project (French abbrev. PSDR) for supporting milk production and development of the taro tuber crop.

FIFAMANOR has 530 ha cultivated land. This includes the two stations ARMOR and MIMOSA in Andranomanelatra and the highland station in Tsiafajavona. MIMOSA is the crop research station under FIFAMANOR whereas ARMOR is the livestock farm. These farms are situated adjacent to each other.

FIFAMANOR's main operational area is the Vakinankaratra region, but FIFAMANOR is also working in the milk triangle constituted by the regions Bongolava, Analamanga and Amoron'i Mania, and Haute Matsiatra. Operations promoting potato production cover a big part of the island.

In 2005, there are **169** employees, of whom 22 are civil servants paid by the Government Budget and 147 contractual agents under the Labour Code.

These employees are assigned as follows:

| | |
|--|----|
| Extension department | 53 |
| Animal husbandry department | 43 |
| Research department | 34 |
| Management and administrative department | 33 |
| Production and seed material department | 13 |
| Rural tracks department | 3 |

FIFAMANOR has a special responsibility in Madagascar for research on potatoes, sweet potato, taro, wheat and triticale, fodder crops and genetic improvement of milking cows. FOFIFA has the mandate to do research on the other crops. According to the general director of FOFIFA, this division of responsibility is functioning well. FOFIFA has currently no research on fruit production due to limited capacity.

3. THE REGION OF VAKINANKARATRA

The FIFANAMOR project has mainly been working in Vakinankaratra. This region has good conditions for agriculture and many development organisations have been working in the area. At

the regional level and compared to the other twenty-one (21) regions of the island, Vakinankaratra seems to be fairly privileged, although it still shows rather slow progress.

In the Vakinankaratra region there has been a gradual transition from subsistence economy to market integrated economy during the last decades. The economic changes in the region are determined by a number of factors. A rapidly growing population has led to a division of land into smaller units, resulting in an increasing shortage of land.

A number of development agencies are present in the region and cooperate with different national organizations and local agencies particularly within the agricultural sector. Programme of Support for Rural Development (PSDR), initiated by the World Bank is an important cooperating organisation of FIFAMANOR, working on rural development in Madagascar.

4. CHALLENGES IN AGRICULTURAL DEVELOPMENT IN VAKINANKARATRA

4.1 CROP PRODUCTION IN VAKINANKARATRA

Vakinankaratra has excellent conditions for agricultural production. Rainfall is good during the rainy season and in the dry season it is possible to irrigate by using the streams that exist in the area. A wide variety of crops are grown. The most important crop in the area is rice. It is mainly grown in irrigated fields (paddy rice), but it is also grown as an upland-crop. Potatoes have also become popular. One reason for the popularity of potatoes is that it is cheaper to prepare a meal based on potato than on rice. Fruit production is also important in the area. Important fruit species are apples, pear, peach, and sharon (a local fruit). Cultivation of temperate vegetable crops is also important in the area.

Farmers are on average only able to produce rice for six months of consumption. The farmers will therefore use their best land for rice production and the remaining land can be used for other crops. Rainfed crops are upland rice, beans, potato, barley, wheat and fodder crops. Crops are also grown in the paddy field during the dry season. Fodder crops can also be grown in the dry season if irrigation possibilities exist. Wheat was a rather important crop in the 1970s in some areas like Betafo. The wheat used to be bought by the KOBAMA mill in Antsirabe. This mill is currently using mainly imported wheat. KOBAMA still buys wheat from the farmers at a price of 450 ariary per kg (1.50 NOK per kg), but this price is not interesting for the farmers. Wheat production in the area has dropped significantly because of the low price they get if they sell to the KOBAMA mill. Farmers do not have a tradition for using wheat in their diet, but some farmers use wheat either boiled together with rice or prepared as a soup. There is now a slight increase in the interest to grow wheat seeds in the region. The wheat price has now increased to 1,000 ariary per kg. This high wheat price can be seen as a reflection of the rice price that is currently 900 ariary per kg. The wheat is used in making biscuits. Wheat is more costly to grow than rice because it needs more input such as fertilizer and fungicides. There is also cultivation of barley in the area for the STAR brewery.

Soybean is another crop that is possible to grow in the up-land soil. It gives a good yield and fixes nitrogen. It is desirable to rotate cereals and potato with a leguminous crop such as soybean

in order to reduce the amount of fertilizer used that is very costly for the time being. There is an oil factory in Antsirabe run by TIKO, but this factory is not using locally produced oil crops. The TIKO oil factory is rather using imported table oil. FAO informed that 90% of the oil that is consumed in the country is imported. This situation is parallel to the situation in the milk sector. Import of foreign food products makes it impossible to increase local production even though the conditions are favourable for both milk and soya production in the area.

Fruit production is an important economical activity in some areas in Vakinankaratra. The region is well suited for growing fruits such as apple, pear, peach and sharon. In the village Androkovato, one third of the income was from growing fruits. Many fruit plantations are old, and a Swiss project assisted some decades ago in renewing some of the plantations. A problem in fruit production is that the species and varieties tend to mature within a short time period. During this time the market is saturated and farmers get a low price. Vegetables are found all over the region. Mostly temperate vegetable crops are grown like carrots, cabbage and different types of lettuce. Vegetables are expensive to grow as farmers use a lot of pesticides. Farmers estimated the pesticides cost 300,000 ariary per hectare. In general, farmers do not buy seeds, but rather harvest seeds after flowering of the vegetable crop.

Fertiliser was in the past given as a gift to Madagascar from Norway. Fertilisers are particularly important in upland crops such as wheat and potatoes, but mineral fertilizer is also used in rice. The national use of fertiliser is below 10 kg/ha, but the use in Vakinankaratra is probably higher than the national average. About 65 % of the farmers use fertiliser in Vakinankaratra. Not much research has been done on testing different types of fertiliser since the 1960s. The recommendation for fertilizer in Madagascar is to use 300 kg composite fertilizer (11 % nitrogen-22 % phosphorous-16 % potassium) per hectare. This advice is general for all types of agricultural production and on all soil types. This recommendation was particularly developed for rice, but is probably less suited for the other crops including fodder species. However FAO and FOFIFA have found that this recommendation is now not even suitable in rice. It has been found that it is possible to reduce fertiliser costs in rice by almost 50% by using diamoniumphosphate instead of the NPK. The reason is that in the paddy soils there is no need to apply potassium. If farmers grow fodder they use some NPK 11-22-16 at the beginning of the season, but after each harvest some urea is used as a top-dressing. In potatoes some farmers use 250 to 500 kg of NPK fertiliser per hectare at planting time. Later 50 to 100 kg urea per hectare may be used as a top dressing. The fertilizer 11-22-16 is probably not well suited to potatoes, because potatoes generally need more nitrogen and potassium and less phosphor. This fertilizer also probably contains potassium chloride that lowers the dry matter content of potato. It therefore becomes costly to use this fertiliser in potatoes. FIFAMANOR should initiate research in order to identify correct dosage and types of fertilizer. Farmers in general follow the recommendation if they apply fertilizer, but many farmers cannot afford to fertilise all their land.

4.2 MILK PRODUCTION

Milk production has become important in Vakinankaratra. Milk production is a rather demanding production technically and financially. FIFAMANOR has worked on promoting fodder production, but with modest success in Vakinankaratra. Fodder production is only interesting for farmers who have more than a certain minimum area of land. Fodder production is also expensive because of high input costs related to seeds and particularly fertiliser. The fertilizer price has

again risen this year. Cost of growing fodder in the dry season is also high because during this time the farmer needs to use labour to irrigate the land.

PSDR financed by the World Bank is currently running a programme to promote milk production in Madagascar. 900 Holstein cows have been imported from New Zealand, but the plan is to import a total of 20,000 Holstein cows. These cows are given to farmer associations. Some of these associations have no training in milk production.

The TIKO dairy in Antsirabe is the major buyer of milk in Vakinankaratra. This dairy was founded by the current President of Madagascar. The existence of this dairy gives the region of Vakinankaratra a unique position with regard to the development of milk production in the country. However, the current market situation regarding milk production is difficult. Farmers selling milk to the TIKO dairy get in average 450 ariary per litre milk. In FIFAMANOR the production cost for milk is about 520 ariary per litre. In other regions the price of milk to farms varies from 600 to 1,400 ariary per litre. The reason for the higher milk price in other regions is that there is less milk production in these regions. It is difficult to calculate an exact price for the milk production cost. Farmers buying all the fodder have higher production costs than those who feed their cows with silage and fresh grass. The team also visited the TIKO farm, and the farm director confirmed that it was not possible to produce milk at a price of 450 ariary per litre milk. It is not the price of milk alone that is the problem, but the unfavourable relationship between the milk price and the price of input in milk production. The milk price was 380 ariary in 2000, 400 ariary in the period from 2001 to 2004 and 450 in 2005. The price of inputs in dairy production has more than doubled during the last five years. The price per kg of concentrates was 280 ariary in 2000 and 600 ariary in 2005. The fertiliser price was 200 ariary in 2000, 600 ariary in 2004 and 1100 ariary in 2005. The reason for the increase in fertiliser price is the removal of subsidies and devaluation of the Malagasy currency. The farmers claim that the milk price was acceptable until 2003, but since then it has been too low. The low milk price has already affected milk production. In Betafo, the neighbouring area to Antsirabe, the farmers delivered 6,000 litres of milk per day to the dairy in 2003, while the daily delivery is currently 2,000 litres.

TIKO collects between 70 and 80% of the milk produced in the region. The TIKO dairy in Antsirabe produces ultra pasteurised milk, yoghurt, ice cream and cheese. The TIKO dairy is now receiving about 25,000 litres milk daily from the local producers. In addition to TIKO, there are about 100 small milk-processing units in Antsirabe producing yoghurt and some cheese. These often pay a higher price than TIKO, but TIKO is the only stable buyer of milk. TIKO is also using middlemen to collect the milk and these middlemen purchase milk from the farmers at a lower price. The milk price used by TIKO is decided by the headquarters in Antananarivo. According to the TIKO dairy, it is difficult to increase the milk price to farmers because it is difficult to sell dairy products at a higher price. TIKO is also selling farm inputs to the farmers like veterinary medicine and forage seeds based on credit. TIKO can do this because the value of these inputs is deducted from the payment of the milk that the farmer delivers.

The use of milk powder in the TIKO dairy was necessary in the years following the establishment of the dairy because sufficient amounts of locally produced milk were not available in the beginning. However, if there was an interest to stimulate local milk production, use of local milk should gradually replace use of milk powder. This appears not to occur and use of milk powder still remains high in the dairies in Madagascar. One reason for the limited use of locally produced

milk can be the low quality of locally produced milk and convenience of using imported milk powder in yoghurt and ice cream production. The international skimmed milk powder price is about 2,200 US\$ per ton. This gives a milk price based on reconstituting milk from skimmed powder milk of about 430 ariary per litre milk. This price difference does not appear to be large, but in ice cream and yoghurt production milk powder is used. If the TIKO dairy is to use locally produced milk in ice-cream production, it is necessary to produce milk powder from the locally produced milk. This is a costly process making it impossible for the locally produced milk to compete with the imported milk powder. In addition, USA and other donors like the EU have given milk powder as a gift to Madagascar. A recent gift from USAID is now sold on the national market. The income from this sale is used for subsidizing the use of milk in school canteens. It is likely that some of the milk that is given as a gift will end up in TIKO dairies making it more costly to utilise local milk than to use milk powder. The union of milk producers (ROVA) also claims that imported milk powder negatively affects the price of milk to farmers. PRN and ROVA have tried to negotiate a price with the TIKO dairy, but no agreement has been reached. It is also difficult to sell cows in Vakinankaratra because of the low milk price. Many are offering cows on the market at this time. Another reason for the low price of milking cows is the import of Holstein cows that are given to the milk producing cooperatives. Some farmers in the vicinity of Antsirabe are selling milk to small dairy units. When the farmers sell to these units they get a price between 500 and 600 ariary. This price is far more attractive to the farmers. It must be assumed that it is difficult to develop the milk-producing sector further in Madagascar as long as the import of milk powder remains so high. Farmers in general claim that they lose on milk production, but gain on crop production.

55% of the milk used in dairy production in Madagascar is imported as milk powder. Milk and food oil are the only imported agricultural products that are not taxed. For the other agricultural products there is a tax of 18%. It is obvious this tax exemption benefits the TIKO dairy and for the TIKO oil factory. The Norwegian government together with the other donors, FAO, World Bank and IMF, should engage in a dialogue with the government in Madagascar in order to ensure that milk powder and food oil is also taxed. This can contribute to increasing the use of locally produced agricultural products in the food industry in Madagascar. The donors also need to be more conscious about the effect of donation of milk powder on the local milk production.

5. LIVESTOCK ACTIVITIES IN FIFAMANOR AND THE RESULTS OBTAINED

Armor is the livestock farm in FIFAMANOR. Its primary objective is to produce bulls for breeding purposes. Milk production is a secondary objective. In addition, the department of research is using the cows in feeding experiments on different types of fodder species. The research department is also running a fodder laboratory that gives advice to farmers based on the feed material that is available to the farmers. A milk laboratory has recently been established in FIFAMANOR that can do bacteriological tests of the milk. This laboratory is not yet fully operational.

5.1 GENETIC IMPROVEMENT

In 2004 Armor produced and sold 15 breeding bulls. Armor has the capacity to produce between 40 and 60 bulls based on the present number of cows. The reason for the limited sale is that the demand was not higher. FIFAMANOR has been selling castrated bulls last year because diseases were identified in the herd. It therefore appears that the importance of Armor as a breeding centre for bulls is currently rather limited.



Insemination of a cow.

Norad has financed a project that has bought semen from GENO/NORGES VEL. PRN receives this semen at no cost and PRN is selling this semen further, particularly to FIFAMANOR, but also to Tombontsoa (the agricultural school). It is this sale of semen that finances the activities of PRN in Madagascar. NORAD buys this semen twice: first from GENO and thereafter through financing the purchase by FIFAMANOR. Artificial insemination (AI) has become popular in Madagascar and in the period from 2000 to 2005 the number of cows inseminated was about 19,000. FIFA is running 13 artificial insemination stations, 7 in Vakinankaratra and 6 outside Vakinankaratra. The reason why AI has become so popular is because of the high quality of the genetic material, and that the farmers do not need to take the cow to the bull. The costs of keeping bulls are also high. There is also much less risk of transmitting diseases through artificial insemination. The farmer pays 8,000 ariary for an insemination. The price in Norway for a dose of semen is approximately 30,000 ariary. The real cost in Madagascar of insemination is 34,000 ariary taking into consideration the cost of the insemination. Natural mating costs from 3,000 to 14,000 ariary.

In addition to the insemination stations, there are 120 bull stations. The bull stations are mostly privately owned but there are also some bulls kept by associations. The number of privately owned bull stations has increased in recent years. Natural mating is still in use. If the AI is not successful the farmers can also resort to natural mating. Farmers having more than 20 cows often like to keep a bull because the cows show their heat clearer if a bull is present.

It is suggested that the responsibility for AI in the future is transferred from FIFAMANOR to PRN. In order to reduce the cost of insemination in Madagascar, the option of importing the semen quality below the supreme quality should be considered. Such semen is not used in Norway, but under the current level of production in Madagascar there is no need to use the supreme semen quality. The fodder quality for the large majority of the farmers is not good enough to take full advantage of the genetic potential of the cow. AI is also used to inseminate zebu cows. In this type of insemination, use of supreme quality PRN semen seems even more unnecessary. PRN should negotiate with GENO in Norway the use of this lower quality semen. Use of locally produced semen for AI should not be ruled out in the future. In other developing countries semen for AI is also tapped within the country. FIFAMANOR has the equipment to do so, but it requires that FIFAMANOR is able to test if the semen is infected by disease. This has to be done in laboratories in other countries.

Due to this breeding work, the PRN race has been firmly established particularly in Vakinankaratra and the maintenance in this race is now more or less independent of support from Norway. However, the PRN association in Madagascar and the insemination stations are still very much dependent on support from Norway.

For the time being farmers gain in agricultural production, but lose in milk production. It is therefore a tendency that farmers are selling their cows and investing in other activities. Farmers from other regions are currently buying cows from Vakinankaratra. The good thing about this is that the PRN breed is spread to other regions through the crisis in the milk production sector in Vakinankaratra.

5.2 MILK PRODUCTION AT ARMOR

Armor currently has 97 cows with an average daily milk production of 20 litres per cow. This is a very satisfactory level of production, and it appears that the milk production in Armor is managed well. ARMOR is only using 40% concentrate in the fodder; the rest is composed of roughage (silage and fresh grass). The current capacity of Armor is 150 cows and in the new provisory five-year plan it is planned to make full use of this capacity. Despite this good management, Armor is producing milk at a loss. The reason for this loss is the low price of milk and high input costs for fertilizer and other input.

FIFAMANOR should reduce the number of milking cows in Armor. Some years ago it was about 50 cows. FIFAMANOR now plans to use the full capacity of 150 cows. The main reason why this reduction in number of cows is proposed is that there is no longer a need to keep a big herd for the production of bulls. This used to be the major objective for Armor. Another reason for the proposed reduction is that the dairy production in FIFAMANOR is running at a loss. It is also difficult for a public organization like FIFAMANOR to produce milk as cheap as the private farmers since a public institution will have higher labour and administration costs. The experience from Tombontsoa (the nearby agricultural school) over many years is that it is difficult for a public institution to make a profit in milk production in Madagascar. The dairy production in Tombontsoa has only been able to function because Norway has financed the purchase of machinery.

The evaluation team does not recommend building a unit for pasteurisation and packing of milk at FIFAMANOR as proposed by FIFAMANOR. Such a production-oriented activity should rather be given to ROVA or other private enterprises. The primary objective of FIFAMANOR should be to generate knowledge for the development of agriculture in Madagascar and production oriented activities will easily take away the attention from this objective. It will also be difficult for a public institution to run a dairy unit in a profitable way over a long period because a public institution will often get higher labour and administrative costs. The dairy unit can therefore easily increase FIFAMANOR's dependency on external funding.

5.3 FODDER PRODUCTION

The research department in FIFAMANOR has undertaken a lot of valuable research to improve fodder production in Vakinankaratra. Fodder species have been identified for the rainy season, the intermediary season and the dry season. When the team visited dairy farms, many farmers, particularly the bigger ones, had started to use fodder crops. However, there is still not much production of fodder. Many farmers are feeding their cattle with rice straw that has very low digestibility. FIFAMANOR has developed a recipe for urea blocs. This increases the supply of nitrogen in the rumen and this can contribute to increasing the digestibility of roughage like rice straw. FIFAMANOR gives technical advice to ROVA on the production of urea blocs and ROVA is now selling urea blocs. FIFAMANOR has been measuring the effect on the growth of calves and a clear effect on daily weight gain was observed.

In the current situation with a low milk price and high cost of concentrates and other fodder, it is important that FIFAMANOR emphasises low cost fodder production methods. Since fertilizer prices are high, a particular emphasis should be given to identification of leguminous fodder species that can fix nitrogen. Screening trials should be undertaken to identify species for the rainy season, intermediary season and dry season. There is a need to renew the contact with international agricultural research centres like CIAT in Colombia and ILRI in Addis Ababa. Particularly CIAT has worked a lot on identification of fodder crops for acid soils. A formal contact with these institutions on testing fodder species should be developed. Use of fodder trees is another area of research. ICRAF in Kenya has identified many valuable fodder tree species that are suitable for the highland conditions.

5.4 IMPACT, RELEVANCE AND SUSTAINABILITY OF THE LIVESTOCK ACTIVITIES IN FIFAMANOR

Over the years FIFAMANOR has made a valuable contribution to promote milk production in Vakinankaratra. Milk production has also contributed to income diversification and to the development of a private dairy industry in Vakinankaratra. The TIKO dairy industry is the biggest, but there are also many small family based dairies that are transforming milk. Many of the dairy farmers have increased their standard of living. The farmers are not generally using the milk for own consumption, but it is rather sold to generate income.

However, milk production has a limited role in relation to poverty alleviation. It is only the bigger farmers that can invest in milk production since more land is required. Only 10,000 of the 250,000 households in Vakinankaratra has milking cows.

The milk production in Vakinankaratra has become independent of external funding, but the supply of semen from Norway is highly dependent on financial support from Norway. The PRN organization is particularly dependent on donation of semen from Norway and it is this donation that finances the PRN association. The PRN breed is however firmly established in Madagascar. Supply of semen is not an absolute requirement since local PRN bulls can be used. The willingness of the farmers to pay more for insemination is low according to the FIFAMANOR staff because of the low milk price. The bigger milk producers could probably be able to pay more for the insemination.

The future outlook for milk production is highly dependent on the milk price. With the current low milk price, pessimism prevails in the sector.

6. AGRICULTURAL ACTIVITIES IN FIFAMANOR AND THE RESULTS OBTAINED

FIFAMANOR has focused agricultural activities on wheat, potatoes and fodder production. In recent years FIFAMANOR has also initiated research on sweet potatoes and taro (tuber crop). The focus has been on screening varieties and production of healthy plant material.

FIFAMANOR has over the last 30 years been working on identifying varieties of wheat, potatoes and fodder crops. A number of suitable varieties have been identified. FIFAMANOR receives wheat and triticale varieties from the International Research Center for Wheat and Maize in Mexico (CIIMMYT). FIFAMANOR has a very good collaboration with the International Center for Tuber Crops in Peru (CIP). Every year new varieties of potato and sweet potatoes are received. FIFAMANOR is also participating in a regional research network on potato production organized by ASARECA (African research network).

One of the main assets of FIFAMANOR is the in-vitro laboratory and greenhouses for producing health-planting materials. The in-vitro laboratory is particularly working on potatoes, sweet potatoes and taro. In recent time healthy basic plant material of banana has also been produced at FIFAMANOR. This was done on request from the Agricultural Ministry (MAEP). There has been a special request for seed potatoes of the Spunta variety. This potato variety is exported to Mauritius. The potatoes for export are produced based on contracts with dealers from Mauritius. FIFAMANOR has the capacity to produce and store about 300 tons of potatoes per year, but this capacity is not enough to meet the demand. Some of the farmers' cooperatives/associations also have the capacity to store seed potatoes.

Sweet potato is a crop that is promoted by FIFAMANOR. This crop is well suited to soils with low fertility. This crop is propagated by vines. FIFAMANOR has introduced a new sweet potato variety that gives three times as much yield as the local variety and some of them are rich in vitamin A. This vitamin is often deficient in the diet in tropical countries.

FIFAMANOR plans to increase its capacity in the field of plant pathology. Training of a PhD candidate is planned together with Planteforsk in Ås, Norway. This candidate is planning to work

on stem rust in oats. Stem rust in oats is particularly a problem in grain production, less in fodder production. The work on stem rust in oat has also already been initiated at Planteforsk. The proposal to train a PhD candidate in plant pathology is supported. However, it is recommended that this candidate give particular emphasis to soybean rust, but also works on stem rust in oat. Soybean has the potential to be a very important crop for the highlands of Madagascar, but its production is currently seriously limited by the soybean rust.

The research department had a section for cultivation technique. However, this section was not functional. This section should be revitalized and particularly focus on soil fertility management. There is a need to identify fertilizer types that are particularly suitable for the crops and soil types in Madagascar. This can reduce fertilizer costs significantly. There is also a need to identify grain legume crops that can fit into the cropping system. Soybeans seem particularly suitable because of their ability to fix nitrogen. In addition, soybeans can be used in oil production and in production of concentrates for milk production. It is possible that TIKO's oil factory in Antsirabe can make use of locally produced soybeans. FIFAMANOR should approach the TIKO factory in order to examine the possibility for developing a local oil production based on soybean.

In 2004 there were in total 78 variety trials for potatoes and 56 variety trials for sweet potato. There is probably no need to conduct such a high number of variety trials as the same information can be generated from a fewer number of experiments.

6.1 IMPACT OF AGRICULTURAL ACTIVITIES

Through research implemented by the Mimosa centre in FIFAMANOR and its cooperating partners, a number of new varieties of rice, tuber crops and cereals have been developed. These new varieties give considerably higher yields. This makes it possible to exploit the farmland more intensively than before by allowing two or more harvests every year. The more intensive utilization of the farmland by double cropping also requires more labour input from the household members. The rice fields are tilled immediately after the rice harvest to be ready for the next crop. The cultivation of potatoes has become common in households and communities all over the Vakinankaratra region, and the potato production has also improved human nutrition in the region. This development is closely linked to the research and development activities of FIFAMANOR.

7. EXTENSION IN FIFAMANOR

The extension activities in FIFAMANOR have focused on the development of milk, tuber and cereal production. The extension department also gives support to the development of farmers' organisations. The extension department has three sections: agriculture, livestock and social development. Within agriculture, the focus is on promoting new high-yield varieties, dissemination of cultivation techniques, organising and providing assistance to farmers' organisations. The agricultural section is also working on promoting conservation agriculture in collaboration with *Groupement Semis Direct* financed by AFD. The section of animal husbandry focuses on promoting the PRN breed, feed improvement and building the capacity of milk producing organisations.

A particularity of FIFAMANOR is that research and extension are housed in one organisation. This is a rare case, because in many African countries the national extension system in agriculture is separated from the research. The advantage of having research and extension in one department is that the research results can be taken directly to the farmers and the extension agents can give feedback to the researchers on what type of agricultural research is most preferred by the farmers.

The extension department works in six zones in Vakinankaratra; each zone is lead by zone leader. These zones are Ambatolampy, Antanifotsy, Betafo, Faratsiho, Antsirabe and Soanindrariny. The department has 32 development agents. In the past it used to be more than 50 development agents.

In addition to the development agents, there are 13 artificial insemination centres run by the livestock department; seven of them work in the region of Vakinankaratra whereas six are in the Milk Triangle outside Vakinankaratra.

Apart from FIFAMANOR, there as also other strong actors promoting milk production in the area. These are PRN, TIKO, ROVA, Tombotsoa and PSDR.

7.1 IMPACT AND RELEVANCE OF THE WORK OF THE EXTENSION DEPARTMENT

The ROR-report (*Réseau Observatoires Ruraux 2004*) has noted that farmers in Vakinankaratra working with FIFAMANOR have a higher standard of living compared to other farmers in Madagascar. Considering the large efforts of FIFAMANOR to assist these groups, there is little doubt that these farmers have strengthened their incomes, capacities, knowledge and practices.

Farmers' participation in organisation in the villages in Vakinankaratra varies from 23% to 95% (*Réseau Observatoires Ruraux 2004*). Organisations where at least 75% of the members and the president are women constitute 20% of the total amount of farmer organisations working with FIFAMANOR ¹.

There is a slow but gradual increase in productivity in agriculture in the Vakinankaratra region. The potato area has expanded and the yield of potatoes has increased from 7 ton/ha to currently about 15-20 ton/ha during the last 30 years. Daily milk production has in the same period increased from 3 to 6 litres per cow. In total there are 250,000 households in Vakinankaratra and approximately 10,000 household in Vakinankaratra that have milking cows. Each farm household has in average between 2 and 3 dairy cows. In addition, there are crosses between zebu cattle and PRN. Farmers who focus on milk production get a daily production between 10 to 20 litres per cow. There is still a big potential for improving crop yields and milk production.

In 2004 there were about 5,400 direct beneficiaries of the FIFAMANOR extension work. In addition there are about 500 contact farmers that were followed up more closely. These farmers

¹ Anne Mugaas, 2003: FIFAMANOR Gender Strategy.

receive a monthly visit from the FIFAMANOR extension department. These are farmers that are willing to follow the advice from FIFAMANOR and provide data for monitoring.

The activity with the biggest development impact may be FIFAMANOR's sale of seed potatoes. In 2004, 406 tons were sold, but this was still not enough to meet the demand. The production of cereal seed has been below 10 tons per year. In total there were 215 seed producers in 2003.

The introduction of PRN has been important for the development of the dairy industry in Madagascar. There is also an impact of the work of FIFAMANOR on fodder production. Farmers have started to grow Pennisetum and Chloris grass during the rainy and warm season whereas in the dry season some farmers cultivate oat and ryegrass. Some farmers also use white clover that originates from Kenya. Ryegrass gives the highest yield under good management as it can be harvested several times. Oat performs well where there is less access to irrigation in the dry season.

The number of direct beneficiaries of the work of FIFAMANOR should be increased. FIFAMANOR should give more emphasis to extension through associations and give these associations a greater role in spreading the agricultural techniques in the villages. In each village the associations should mobilise farmers around them in order to create effects beyond those who are directly reached by the extension. By adopting this approach, it should be possible to reach a higher number of farmers. Currently there are about 5,000 direct beneficiaries of the work of FIFAMANOR, but it should be possible to substantially increase the number of farmers reached through the extension services of FIFAMANOR. The association should particularly focus on issues that are crucial for further productivity increase. The association should only work on a limited number of problems simultaneously. It is important to mobilise all the farmers in each group in testing and developing new technology. The role of the extension agent in this approach is to facilitate the process and act as a discussion partner. The farmers themselves should, however, lead the association and prioritise the work in each association.

The extension system in FIFAMANOR should be based more on the needs of the farmers. There is currently no formal process that ensures that FIFAMANOR extension department works on the issues that interest the farmer most. This process should be formalized. FIFAMANOR cannot work on all possible types of agriculture problems, but focus its attention in areas where it has particular competence. FIFAMANOR's plan to specialise the extension agents can contribute to improving the quality of its extension services.

8. DEVELOPMENT OF FARMERS' ORGANISATIONS

In the light of the new political agenda in Madagascar based on liberalisation and privatisation, where the state plays a normative and regulating role, it is not obvious that FIFAMANOR should continue to work on all the existing activities.

The establishment of farmers' organisations in Vakinankaratra has already taken place with the support of FIFAMANOR. Some of them, like PRN and ROVA, have been economically supported by external funds. This has given them the opportunity to improve the infrastructure

and to run independent activities. There are now 280 organisations for livestock owners in Vakinankaratra.

Experiences elsewhere have shown that it is desirable to avoid mixing different sectors of activities in the same organisation. In the context of the rural area of Vakinankaratra, the following organisations are related to FIFAMANOR: PRN, ROVA, and VMMV. This organisation should concentrate on their core activities. This will imply that FIFAMANOR concentrates on research and extension services, PRN specialises on genetic improvement of the PRN race, ROVA on the collection and transformation of milk.

PRN association: The PRN association was founded in 1993 by milk producers who had acquired pure-bred or crossbred PRN cows and were interested to work for the conservation and expansion of the Norwegian Red Cattle in Madagascar and to solve common problems for its members. The objective of the association is to conserve, protect and improve the PRN cattle in Madagascar. Technically the association is collaborating directly with the Norwegian breeding association GENO. The strategy for genetic improvement is based on natural mating and import of semen from Norway, an exclusive right that GENO has given to the PRN association. In October 2005 the number of members had reached 650.

The PRN association works to reach its objectives by improving the genetic and health situation of dairy cows, training of administrative staff, inseminators and members, and organising travels, farm visits and meetings in collaboration with other organisations. The PRN association has a small administrative unit, of only two persons (the former director has left for the director job in FIFAMANOR recently), and seems to be working efficiently.

Until now, FIFAMANOR has maintained their stations for artificial insemination. However, it is the PRN staff that has trained the agents of FIFAMANOR in artificial insemination. In the future, a transfer of responsibilities from FIFAMANOR to PRN should imply an increased budget for the PRN association. Since PRN is new as operator, it would be recommendable that the stations for insemination are gradually transferred to PRN. However, this means that PRN should be strengthened financially.

ROVA: As a result of assistance by the extension service of FIFAMANOR, and in response to demands from farmers, several farm organisations have been founded in the Vakinankaratra region. When the extension workers could no longer continue selling fertilisers etc. to the farmers, an organisation responsible for supplying farm input material to its members was founded in 1987 and given the name ROVA (Rononon'i Vakinankaratra). ROVA was created by milk producers who were beneficiaries of the extension service of FIFAMANOR with the objective of supplying farm inputs, especially fertilisers, veterinary medicine, seeds, small tools etc. to the members on the one hand and buying and commercialising certain crops on the other hand. ROVA runs a concentrated factory outside Antsirabe. ROVA is, since 2002, a cooperative union and also aims at improving the standard of living of the farmers. In total, 329 associations have been organised in 2004, 41 unions and 4 federations with a total of 3,447 members. There are 32% women in the boards of these associations. ROVA has 7-8 "*cooperatives de base*", which are organised related to a milk tank. Their objective is to collect milk from the producers and to sell it on the market.

Still another organisation, that was given the name VMMV, was founded by seed producers. Because of the PSDR initiative many groups asked for help to get organised.

Establishment of cereal banks is an important activity in the region. There are now 148 cereal banks that are supervised by FIFAMANOR and cereals are equivalent to 980 tons stored in these magazines. The reason why this is an interesting option is that the rice price varies during the season. At harvest last year the price was 300 ariary per kg whereas the price by the end of the dry season is 800 ariary. When farmers get a credit at the time of harvest, they do not need to sell their rice immediately, but can wait to sell until the price becomes more favourable. The credit that the farmers get at the time of rice harvest is also used to finance the growing of crops in the dry season. The NGO Haingonala (funded by FID) has been giving credit for the establishment of cereal magazines. Each household gets between 50,000 to 100,000 ariary in credit depending on how much rice they put in the magazine.

FIFAMANOR has also facilitated the contact between the farmers and Centre d'Epargne Credit Agricole Mutuel (CECAM). This organisation provides credit to farmers for the purchase of fertilizer and other agricultural input. The interest per month is 1.5 %. Farmers take this credit to buy fertilizer and they pay back after harvest. There are sanctions for those farmers who do not pay back their credit.

9. GENDER IN FIFAMANOR

The creation of women and men's associations has been an important part of FIFAMANOR's work. These associations have greatly promoted development in the region. Among all the "associations de base" in the region, 57% of the members are men and 43% are women (June 2005). The objective of the men and women associations is to improve the household's living standard. The members commit each other to increase productivity by adopting new varieties and techniques such as seed production, milk production and building of storage-houses. A strategic objective for the section of social development has been to arrange training courses for women to ensure equal participation of women and men farmers. The training has focused on motivation, support and reinforcement of the technical and organisational knowledge and experience of women. The main issues in the training sessions have been gender awareness and gender relations, women's rights, HIV/AIDS, administrative and organisational training. A visible impact of the training courses organised by FIFAMANOR has been a development of women's self-confidence through the gender approach.

Gender roles and gender relations are among the many important aspects that must be considered when working with extension activities. An analysis of the gender specific components on integration of women into production activities should therefore include both men and women and the relationship between them.

There has been a tendency in studies on women in development to treat women as a homogenous category and thereby overlook the class dimension. We should not forget that women as well as men are members of social classes, and that their class affiliation to a large extent determines the impact of processes of social transformation.

It has often been argued that women in Madagascar have a relatively high status compared with women in other countries in Africa. Their high status has often been associated with their active role in the household, in agriculture and in the economy. According to the tradition, women contribute decisively to the economy of the household. In addition to their domestic responsibilities, they control the storing, processing and distribution of certain products, such as harvested rice and the incomes they gain from market sales. They also make decisions on how to use the income. This grants them considerable influence in the decision-making on the farm.

The household is the organizational basis for the gender specific division of labour, and it is the arena where women and men cooperate to cope with their daily tasks. However, it is important to note that the gender-specific division of labour is not a rigid norm. The lack of hands, whether feminine or masculine, will often compel husband and wife to cooperate in the different tasks whether they are defined as men's or women's work. Households with small economic resources cannot hire labour. In such cases, the different tasks are often carried out by the household members, almost irrespective of gender.

Table. Gender related activities as of October 2005.

| | Results and activities | Unity | Objectives 2005 | Realisations until October |
|------------------|---|---------------------------------|-----------------------------------|--------------------------------------|
| Results: | Percentage of women who benefit of the activities of FIFAMANOR | % | 43 | 42,3 |
| ANIMAL HUSBANDRY | <u>Results:</u> Reinforcement of the participation of women in the agricultural production: <ul style="list-style-type: none"> • Women administrators of the farms • Women who benefit from training courses <u>Activities:</u> <ul style="list-style-type: none"> • Training assigned to women | Number Number Number | 850 1600 ND* | 917 1391 83 |
| AGRICULTURE | <u>Activities:</u> Integrating gender approach in the activities: <ul style="list-style-type: none"> • Common storehouse • Seeds handed over to women • Experiment sites • Demonstration sites • Surface of seeds production | Tonnes Tonnes % % % | 400 ND 37,5 35,5 35,5 | 374,6 7,035 68,5 70 48,6 |

* Some of the activities in 2005 were not determined. ND = Not Determined

Women and men's lives in Vakinankaratra are determined by the economic position of the household and their position within the household. A household's access to land, means of production, and incomes are factors that strongly influence women's and men's working and living conditions. The husband is considered the head of the household's external relations, and represents the household externally. The wife is the head internally, and is responsible for the day to day running of the household and for the organization of domestic work. Some of the farmers - women and men - working with FIFAMANOR tend to organize their division of labour according to tradition, the husband attend training courses and meetings with FIFAMANOR, while the wife stays at home to take care of the activities near by the household. However, special emphasis is made by the Section of Social Development on motivating women to join and to participate actively in the activities and training courses, and with increasingly good results.

Due to their important domestic roles, women are always influential, but to a varying degree depending on the size and composition by age and sex of the household and its economic conditions. Studies in the Vakinankaratra region ², and confirmed by the Evaluation Team in 2005, shows that in households with large flexibility and large economic resources, husband and wife seem to participate on an equal basis concerning decision related to the household and its activities. On the contrary, in vulnerable households men play a more dominant role in the decision processes. FIFAMANOR has had a positive impact on women's social and economic position in households.

The general objective of the Gender Strategy of FIFAMANOR (2003) is formulated "to reinforce women's participation in FIFAMANOR's activities to create a more equal participation between the genders".

FIFAMANOR has earlier included women in activities by training women in household chores (nutrition, family planning, etc.). Later, some agricultural activities were introduced – which traditionally are both men's and women's responsibilities.

Support to men and women farmers has in recent years been given only in the main areas of FIFAMANOR's work – production of potatoes, sweet potatoes and taro, cereals and other food productions as well as technical and institutional support for milk production. So far FIFAMANOR has attained a relatively high proportion of women in their main activities and the gender strategy is aiming to further reinforce and balance women's and men's active participation in all extension activities through a focus on gender in addition to women. FIFAMANOR targets women both by aiming at integrating women's interests and gender equality into their activities – gender mainstreaming - and through measures specially oriented towards women. Gender mainstreaming means consciously aiming at the participation of men and women in all areas of work. This seems to be demonstrated in the practice of the Department of Extension Work, where the gender perspective is sought to be integrated in the extension work. Specific activities that have given good results are reinforcement of men's and women's capacities - through training and practice – in organisational and economic steering, planning, decision-making, human relations and by sensitising men and women on the division of labour in a gender perspective. Women are also approached specifically through FIFAMANOR's motivating of women's

² Marianne Skjortnes, 1990: *Kvinner og utvikling. Kvinners rolle i FIFAMANOR-prosjektet på Madagaskar*. Rogalandsforskning.

participation in associations, a focus on an active promotion by leaders, priority in recruitment of staff when equally qualified candidates apply, and by arranging training courses for women on human rights. Both men and women perform extension activities, among 32 extension workers 9 are women.

Many of the FIFAMANOR-staff demonstrate motivation when it comes to integration of women into the activities of the programme. However, capacity building and training of FIFAMANOR-staff in gender perspectives should continue.

10. MANAGEMENT OF FIFAMANOR

FIFAMANOR is governed by an external board that has the overall responsibility for the project. The board consists of three representatives from the Ministry of Agriculture, two representatives from the Ministry of Finance and Budget, two producers' representatives and the director general of FOFIFA. The donors may attend the meetings without voting rights, but may have their remarks recorded in the minutes of the meetings. The Director is in charge of the execution of FIFAMANOR's programme and of managing its various operations. The Administrative and Financial department, together with the Director, is in charge of coordinating, supervising and running FIFAMANOR. In addition there is a Monitoring & Evaluation department consisting of one person.

The board of FIFAMANOR deals with examining and approving the implementation plan, annual budget, examining and approving annual technical and financial reports. As for financial reporting, the committee is assisted by an auditor and an audit firm. From 2000 to 2004, all these requirements were met within the planned schedule. Some members of the board are also present when FIFAMANOR organises bids when new items/goods are to be purchased.

The administrative unit deals with providing support to various departments, including running the workshop, managing and providing services to the personnel. With regard to accounting and financing, FIFAMANOR publishes a balance sheet, income statement and statement of funds in time and in compliance with rules and regulations. Those accounts are audited by Delta Audit firm, a member of Deloitte Touche Tohmatsu network. FIFAMANOR accounts are approved without any reserves for the years 2000 to 2004.

The auditor also reviews whether the internal control system is in accordance with the newly revised Manual of Administrative and Accounting Procedures. FIFAMANOR has engaged a consultancy firm for 20 months in order to introduce the new software, but this failed. This task has now been taken over by another consultancy firm that is now overhauling and redesigning the Integrated Management Information System (French abbrev. SIGI). Installing the SIGI started by the end of 2004 and is by now, mid-October 2005, completed. The training of the personnel by the consultancy firm is underway.

The administration of FIFAMANOR is in general functioning in a satisfactory way. However, FIFAMANOR has not been able to utilise all the funds that were budgeted for during the project period from 2000 to 2005. The reason for this delay is partly related to the changes in the

exchange rate between Norwegian kroner and the Malagash currency. The project was also not able to use the allocated funds in 2002 due to political problems in Madagascar in this year. The extension agents were not able to do much outreach activities and the activities were in general in slow gear. This is also seen in the results produced in 2002. FIFAMANOR cannot be blamed for the limited use of funds in 2002, since this is clearly related to external factors. The use of funds for competence building has also been behind schedule. In 2004, FIFAMANOR also used less than the budget. Under the director starting in 2003, there were delays in the purchase of new agricultural machinery. All these factors contribute to explaining why FIFAMANOR has not been able to use all the funds for the five-year period from 2000 to 2005 and explains why there are funds remaining for the running of FIFAMANOR in 2006.

The technical reporting from FIFAMANOR is generally good except with regard to reporting on the impact (see next paragraph). The annual report gives a very good overview of the activities of FIFAMANOR and the same indicators are measured over several years. This gives a good overview of the development of the project and the results obtained. This report has been delivered in time.

There are clear weaknesses related to the monitoring and evaluation system developed for FIFAMANOR. The monitoring and evaluation system gives a good overview of the outputs of the project, but does not provide sufficient information to assess the impact of the project in terms of the effect on the living conditions for the project beneficiaries. FIFAMANOR needs to develop a new set of indicators to assess the impact. This will enable the organisation to assess if the project contributes to improving the living conditions for the project beneficiaries. The external factors that influence the performance of the project will also need to be systematically monitored. This relates to prices of inputs and outputs, new laws and regulations and external physical events such as rainfall etc. The lack of use of impact indicators makes it difficult for the team to assess the project on the living conditions of the population. The officer in charge of evaluation and monitoring is currently also handling administrative issues and external contact. These combined tasks are overwhelming and it is the view of the team that the responsibility for monitoring and evaluation should be handed over to the head of extension. The officer now in charge of monitoring and evaluation should focus on administrative and external issues.

During the past two years there have been frequent changes in the leadership. Rakotodramanana was replaced in 2003, after many years of service in FIFAMANOR, by a director who only served 18 months. This person was removed from the service by the President of Madagascar in March 2005 and the current director Rasamizafimanantsoa (Sami) was nominated. During the time of the previous director it was felt among FIFAMANOR's personnel that the director did not give sufficient attention to the running of FIFAMANOR. BIANCO (anti-corruption office) has been investigating FIFAMANOR without giving any remarks. There is no evidence of any criminal activity, but it appears that some machinery that was to be renewed was sold at a low price. Norges Vel had also some problems communicating with the previous director and this was reported to the chairman of the board of FIFAMANOR.

Norges Vel has administered the funds from Norad and has channelled these to FIFAMANOR. Annual meetings between Norges Vel and FIFAMANOR have been held to discuss the budget and annual plans. It is clear that Norges Vel has mainly seen its role as an administrator. It is stated in the contract between Norad and Norges Vel that Norges Vel shall make sure that the project is

implemented according to the project plan and budget. However, the role of Norges Vel as a technical advisor is described in a rather passive way. It is stated that Norges Vel shall make available technical expertise upon request from FIFAMANOR. Norges Vel shall furthermore assist FIFAMANOR in identifying partners in Norway. It appears that Norges Vel has assumed that role and has only to a limited degree played a pro-active role as a technical advisor. Norges Vel has used Einar Høystad as a consultant related to technical issues. He has made a valuable contribution particularly in relation to the functioning of ARMOR. The mid-term evaluation that he conducted together with Ramalanjaona Vololoniaina gives a valuable contribution to the future development at FIFAMANOR. Norges Vel has also facilitated the contact between Planteforsk and FIFAMANOR. However, it can be questioned if Norges Vel is the best partner for FIFAMANOR in Norway. FIFAMANOR is a research and development organisation and Norges Vel has no particular research experience in the fields FIFAMANOR is working. The Norwegian University of Life Science (UMB) and BIOFORSK (Planteforsk and Jordforsk) are better Norwegian scientific partners for FIFAMANOR. FIFAMANOR would benefit from direct collaboration with these institutions.

It appears that this administrative set-up has functioned satisfactorily except in 2005 where there was a delay in the transfer of funds to FIFAMANOR. FIFAMANOR requested a transfer of funds in May, but the funds were received in the beginning of October. It appears that the funds were not released in time. Norges Vel presented to the evaluation group a list of contacts made with NORAD and the embassy in order to release the funds. At this time the responsibility for financing the project had been transferred from NORAD to the embassy and the confusion this created may explain the delay in the transfer.

The contract between Norges Vel and NORAD can not continue based on the existing contract because the funds to Madagascar are now to be channelled through the Norwegian embassy in Madagascar. The embassy will need to establish an agreement with the Ministry of Agriculture in Madagascar. This will imply that Norges Vel will lose its role as an administrator of the programme. However, it is still important for FIFAMANOR to maintain the collaboration with the Norwegian research and development community. FIFAMANOR can probably benefit from more direct collaboration with Norwegian research institutions. The Norwegian research institutions that are in the forefront in the fields of agricultural research are the Norwegian University of Life Sciences in Ås and BIOFORSK. Norges Vel may have a role in relation to the development of farmers' cooperatives and commercialisation of the seed production sector. Funds should be established for ensuring the collaboration with the Norwegian institutions. These funds should be used to finance the use of Norwegian competence in areas where FIFAMANOR has a particular need. These areas should be defined in a joint meeting between FIFAMANOR, UMB, BIOFORSK and Norges Vel at the beginning of the new phase. The year 2006 should be considered as a bridging year. Norges Vel may well administrate the funds in 2006 if the embassy has not yet developed the capacity to handle the project administratively.

11. OVERALL EFFICIENCY, EFFECTIVENESS, IMPACT, RELEVANCE AND SUSTAINABILITY OF FIFAMANOR

The strategy of FIFAMANOR during the last five years has been to increase competence of the staff on station and in the field, integration of research and extension, support to the farmers' organisation, establish a network of highly qualified extension agents, supply breeding bulls and maintenance of breeding of stations, supply seed and cooperate with other institutions working in the same or related fields. The team has observed that in general FIFAMANOR has been able to fulfill the strategy and delivery according to the initial plans. The staff of FIFAMANOR has a good competence. However, FIFAMANOR do need to continue strengthening the competency of the staff. Integration of research and extension are a strength of FIFAMANOR and it was observed that the major results produced in the research department were in use by the extension department. FIFAMANOR has established a network of extension agents in Vakinakaratra. The livestock sector has also been deliving according to the above plans. The milk production in Armor has been as planned. The number of pure PRN cows, the number of inseminated cows and production per cow (among farmers) has been above the planned results. The number of bulls sold from Armor has been 62% below target. There has been a low demand for bulls in the period, probably due to the increasing interest in artificial insemination. The area with fodder crops in Vakinakaratra is 10% below the target level. There is actually 2,700 ha sown with fodder crops in 2004. This is probably due to the low price of milk and the high cost of purchasing the input for fodder production. In total there were 3,400 milk producers who received training in 2004. This is 5% below the target. In agriculture, more seed potato production, more ryegrass seed production, more in-vitro plants produced, more variety tests, more virus tests (in tuber crops) have been realised than the target in the plan. However, there has been less seed production of rice, soybeans, maize, oats and setaria than planned, but these are minor crops in Vakinankaratra and the demand has not been high. With regard to the farmers' organisation, FIFAMANOR has also performed well. In total 148 grain banks have been established; 25% higher than the target level. The grain banks have been established in collaboration with other organisations. In 2004, there are 2,549 milk producers that are member of farmers' organisations. This is, however, lower than the target level. A number of seed producing organisations have been established. With regard to gender, FIFAMANOR has in general assisted women according to the plans established. The internal management at FIFAMANOR should be improved in order to ensure a better coordination between the departments. It is questionable if it is a good approach to run Mimosa and Armor as separate units.

Norwegian assistance to FIFAMANOR has been of a long-term nature. This is perhaps one of the reasons why there are now clear visible effects of the work of FIFAMANOR. Both milk and tuber production can be considered as success-stories. Equally important is the strengthening of farmers' organisations. Many of these organisations are now running without the support from FIFAMANOR.

Financial sustainability is difficult for a research and development organisation like FIFAMANOR. It is quite unlikely that FIFAMANOR will generate enough income to be able to sustain its activities. Its long-term viability will first and foremost depend on the government of Madagascar's willingness to prioritise FIFAMANOR. If such willingness is not there, it is not likely that an international donor like Norway will continue to support FIFAMANOR. The best

approach for FIFAMANOR to be able to financially sustain their activities is to maintain the quality of their work in research and extension. Several of the activities of FIFAMANOR are already financed by other institutions like the work on zero tillage financed by AFD and the Taro project financed by PSDR (World Bank). The NGO Haingonala is financing the establishment of cereal magazines and CECAM (credit institution financed by the EU) is financing the purchase of input to the farmers' organisation. FIFAMANOR has been able to draw the farmers' organisations into these wider networks and has therefore been able to outsource some its activities. ROVA, the milk cooperative, has also taken over some of FIFAMANOR's role related to organising milk producers and providing input to farmers. A union of cooperative for seed potato producers is under development and this organisation can probably in the future assume the same responsibility as ROVA in the milk production sector. FIFAMANOR should in the future give more emphasis to development of new projects with other donors and research institutes. FIFAMANOR has not yet been very active in this field, but FIFAMANOR should aim at becoming less financially dependent on Norwegian support. FIFAMANOR should also extend the activities outside Vakinankaratra. The organisation needs to show that it is dynamic and willing to initiate new activities. FIFAMANOR has a lot to offer to other regions. A gradual regionalisation of FIFAMANOR can be one approach. This regionalisation can be done in partnership with other Malagasy organisations and NGOs. One approach is to make use of the research facilities of FOFIFA. FIFAMANOR is not competing with FOFIFA since FIFAMANOR and FOFIFA work in different areas. FOFIFA also has no extension department.

The core activities in future of FIFAMANOR should be research, production of basic and plant material and extension. Commercial activities like sale of seeds should be gradually transferred to farmers' organisations or private actors. The responsibility for artificial insemination should gradually be transferred to PRN, but this requires a strengthening of PRN.

The biggest asset of FIFAMANOR is its staff. It is therefore important that the competence of the staff is further strengthened. This was a weak point in the previous five years period. It is important that the core staff of FIFAMANOR get an opportunity to visit international research centre like ILRI in Addis Ababa, CIAT in Colombia and ICRAF in Nairobi. There is a special need to strengthen the competence of the staff of FIFAMANOR in the fields of soil fertility management and plant protection. If FIFAMANOR decides to develop fruit and vegetable production, FIFAMANOR should also establish contact with the International Vegetable Center that has its African headquarters in Arusha, Tanzania.

FIFAMANOR should strengthen its marketing ability in order to be able to attract new funding. One of the best ways to do so is probably to establish a well-designed homepage for presenting major results and the competence of the staff. FIFAMANOR should continue to produce leaflets with farmers as the primary target group.

FIFAMANOR has worked for a long time on the organisation of seed growers and an association for seed growers was created (VMMV). Several of the associations have now developed into cooperatives. Cooperatives as compared to associations can generate income and share the income among the members of the cooperatives. In November 2005 FIFAMANOR will assist in the creation of a union of cooperatives. This organisation can later assume the responsibility for sale of seeds all over the country.

12. CONCLUSIONS AND LESSONS LEARNED

The team has found that FIFAMANOR is an institution worthy of support. The institution has good contact with the farmers and there are clear effects of FIFAMANOR's support in the rural community in Vakinankaratra. Spread of potato production is a success story of FIFAMANOR and there is still a strong demand for seed potatoes. FIFAMANOR has been important for the development of the milk sector in Vakinankaratra.

The team has observed that in general FIFAMANOR has fulfilled the strategy and delivery according to the initial plans. The project objectives and intended strategies are in general relevant to needs, to the development and agricultural policies of the country, as well as to Norwegian policies and priorities for development cooperation. FIFAMANOR, as an agricultural programme, has therefore produced considerable impacts in the region.

It should be noted that the staff of FIFAMANOR has good competence. FIFAMANOR and its staff have also created an attitude of trust with the communities in the Vakinankaratra region. The commitment of the staff working in the project should be acknowledged.

FIFAMANOR has contributed to building farmers' organisations in the field of milk production and seed production. The organisation for milk producers ROVA is now running independent of support from FIFAMANOR. However, there is still collaboration with ROVA on recommendation for feeding of cows.

The PRN cow has been spread through work of FIFAMANOR and the PRN organisation. FIFAMANOR is running 13 insemination stations. Milk production is currently in crisis due to the low price of milk. It was found that milk powder constitutes 55% of the milk used in the dairies in Madagascar. A tax exemption on milk powder makes it less costly to use milk powder for the dairies than to use locally produced milk.

The research and development activities that FIFAMANOR is running are still highly relevant for the development of agriculture in Madagascar. However, after 30 years of existence work it is also time to enlarge the activities in order to reach more people and take up new activities that are pertinent to the development of agriculture in Madagascar. The team therefore proposes that FIFAMANOR intensifies its research and development activities outside Vakinankaratra and that FIFAMANOR initiates work on soil fertility management and strengthens its research on plant pathology.

The project is well in line with the policies of the government of Madagascar to improve access to credit, promote research in agriculture and livestock development, increasing food production to improve food security and promote sustainable management of natural resources. A special emphasis is also given to promote milk production in the policies of the government. However, the policy of the government is contradictory in this field. On the one hand, there is import of Holstein cows to promote milk production, but on the other hand there is no tax on the import of milk powder. This contributes to keeping the milk price low and demotivates the farmers from investing in milk production.

FIFAMANOR is an important organisation for promoting agricultural development in Madagascar. If Norway decides to give increased emphasis to agricultural development, FIFAMANOR could become an even more important partner for promoting agricultural development than it is today. However, it is important that FIFAMANOR is able to attract funding from other donor and financing institutions. FIFAMANOR should increase marketing efforts in order to present the competence of its staff. It appears that the Ministry of Agriculture in Madagascar recognises FIFAMANOR as a very important institution for the development of agriculture, and there appears to be a will to continue the financial support to FIFAMANOR in the government in Madagascar. It therefore appears that the conditions are there for developing a new five-year project with FIFAMANOR.

One important lesson from this project is that a long-term commitment to agricultural research and development pays off. It would not be possible to achieve such results only within a short time period. Another lesson from the project is that if the organisation is run as well as FIFAMANOR, it is possible to get new project partners and thereby reduce its dependency on one donor. It is clear that there are several advantages of having research and extension in one department. This has made it possible to take research results directly to the farmers.

13. RECOMMENDATIONS

1. The team recommends that Norwegian support to FIFAMANOR should continue and that an increase in the budget support to FIFAMANOR should be considered.
2. Norway together with other donors should discuss the issue of tax exemption for milk powder with the government in Madagascar. Also, for the development of other agricultural production sectors, import of agricultural products causes a problem. Mainly all the table oil in Madagascar is imported even though there are excellent conditions for growing soybeans. Import of wheat flour is also high. The general policies in Madagascar are therefore not conducive for development of local production.
3. FIFAMANOR should remain a centre for research and development. FIFAMANOR should not be developing commercial activities further, but leave this to the private sector. However, FIFAMANOR should give technical support to farmers' organisations that aim at commercialisation of their production.
4. Some of the activities that FIFAMANOR is currently undertaking should be gradually privatised or developed into cooperatives. One activity that should be privatised is artificial insemination. This activity should be gradually taken over by PRN. Supply of certified seed potatoes is another activity that should be privatised. However, this transfer of responsibility should be done in such a way that these activities do not collapse. FIFAMANOR will in November 2005 assist in creating a union of cooperatives for seed production. This union can gradually take the responsibility for commercialisation of seed production. In the privatisation process it is important that partnerships are developed with other actors like FAO. The commercialisation of the seed sector cannot be done by

FIFAMANOR alone, but only in collaboration with other organizations. This transfer of responsibilities should be done during the next five years.

5. FIFAMANOR should increase its activity outside Vakinankaratra. FIFAMANOR has for the last 33 years mainly worked in Vakinankaratra, but it is believed that a regionalisation of FIFAMANOR should increase the importance of the organisation further. This rationalization process should be done in close collaboration with other partners in development. FIFAMANOR should consider having a representation in regions outside Vakinankaratra. The regionalisation of FIFAMANOR is relevant for research and extension.
6. FIFAMANOR should better market its competence in order to attract new funding and become more financially sustainable. The centre should become less dependent on funds from Norway through developing projects with other donors and project partners. FIFAMANOR should develop a web page on Internet in order to present its competence and major results. It is also important that FIFAMANOR more actively markets its competency through inviting interested project partners and participating in national fora.
7. FIFAMANOR is the main supplier of seed potatoes in Madagascar, but FIFAMANOR also supplies healthy plant material of sweet potatoes and taro. FIFAMANOR cannot meet the demand for producing seed potatoes due to limited capacity for producing basic seeds. It is therefore suggested that FIFAMANOR increase its capacity to produce seeds of tuber crops. New facilities will be needed for that purpose.
8. Research on soil fertility management should be given increased attention in FIFAMANOR. It is recommended to establish a section for soil fertility management in the research department. The research in this section should focus on developing appropriate fertiliser recommendations for different crops and soils. The current blanket recommendation is the same regardless of crops and soil type. This can easily double fertilizer costs. Due to the high fertilizer prices more emphasis should also be given to identifying grain legumes and leguminous fodder crops including tree fodder crops. The extension department should initiate work together with farmers on soil fertility management.
9. Research on plant pathology should be given increased attention. Particularly there is a need to initiate research on soybean rust. The proposal to train a PhD candidate in plant pathology is supported. It is recommended that this candidate gives attention to soybean rust, but also works on stem rust in oat.
10. FIFAMANOR should get in touch with the TIKO factory in order to examine the possibility for developing a local oil production based on soybean.
11. Fruit is an important production in Vakinankaratra. A wide variety of temperate fruits are grown in the region. Fruit production has also been defined as a priority area for the region. FIFAMANOR should undertake a feasibility study to assess whether it is of interest to initiate research and development activities in this field.

12. The objective of the Armor farm was originally to produce bulls for breeding purposes. During the last five years, Armor has in average produced between 15 to 20 bulls annually. The number of cows in the Armor farm has increased during the last five years from about 50 to 97 cows. FIFAMANOR plans to increase the number of cows. However, FIFAMANOR is now producing milk at an economic loss. The team proposes FIFAMANOR to return to the previous objective to produce breeding bulls. In addition there is a need for cows in feeding experiments. It is therefore suggested that FIFAMANOR gradually reduce the number cows to suit the primary objective and the need to keep animals for experimental feeding purposes.
13. NORGES VEL has been the Norwegian counterpart for FIFAMANOR. NORGES VEL has, on the other hand, an agreement with NORAD that has been financing the project. The Norwegian Embassy in Madagascar is now handling the development assistance to Madagascar and the new phase of the project can therefore not continue based on the existing contract between NORAD and NORGES VEL. It is therefore suggested that the Norwegian Embassy in Madagascar will administratively handle the FIFAMANOR project in the new phase. However, FIFAMANOR is still interested in continuing the collaboration with Norwegian institutions and it is therefore suggested that a fund is established that is reserved for financing Norwegian collaboration with FIFAMANOR. FIFAMANOR should define in which fields collaboration with Norwegian institutions is desired and joint projects with the Norwegian partners should be developed. However, collaboration with international research institutions particularly with CGIAR institutes is still very important.
14. FIFAMANOR should strengthen its gender related work. Work on gender is not only of interest for the section of social development, but it is important that all FIFAMANOR personnel understand the importance of gender and learn how to make use of this knowledge in their daily work. Workshops on gender should be considered organised to strengthen the gender awareness among farmers - men and women - as well as further strengthen the competence of the staff of FIFAMANOR in this field. The gender related activities should be better reflected in the annual reports.
15. FIFAMANOR should revise the extension department. FIFAMANOR should focus less on giving advice to individual farmers, but rather focus on advising through farmers' associations. It then becomes possible to reach a larger number of farmers. This will imply that the extension work will be similar to the farmers' field school approach. These associations could take the responsibility for extension within their own village and possibly also in neighbouring villages. The extension system in FIFAMANOR should be based more on the needs of the farmers. There is currently no formal process that ensures that the FIFAMANOR extension department works on the issues that interest the farmers most. This process should be formalized. FIFAMANOR cannot work on all possible types of agriculture problems, but focus its attention in areas where FIFAMANOR has a particular competence. FIFAMANOR plans to specialise the extension agents can contribute to improve the quality of their extension services.
16. The department for monitoring and evaluation should be closed down. The responsibility for monitoring and evaluation should be transferred to the head of the extension

department. A new monitoring and evaluation system should be developed that focuses more on the impact of the project and less on direct outputs. As the extension department is the department that has most contact with the farmers, it is natural that this department has the overall responsibility for documenting the impact of the project. The heads of the other departments should communicate key output figures to the head of extension. This will also ensure a better coordination between the departments. A strengthening of the competence within monitoring and evaluation is probably needed for key FIFAMANOR staff.

Appendix 1 - Terms of Reference

Review of Norwegian support to FIFAMANOR

1. Background for the programme

The agricultural sector is the dominating economic sector in Madagascar, providing about 80% of the total employment and 80 % of the export earnings. Productivity is generally low and food insecurity affects a high share of the population. The Malagasy PRSP points out agriculture and agricultural related industries as a prime focus in poverty reduction efforts.

FIFAMANOR is a national centre for research and extension related to agriculture and animal husbandry in Madagascar. The institution has received support from Norway since 1972. Milk production and the dairy sector have been key elements in the programmes. Extension services, support to production of fodder and other crops and research on pest resistance are also important elements. The programmes were in the early phases based on regular bilateral agreements between the two governments. From 1992 onwards, support was channelled through NGOs and the UN system. The current phase of support to FIFAMANOR from 2000 to 2005 was implemented under the auspices of an agreement between FIFAMANOR and the Royal Society of Rural Development (Selskapet for Norges Vel -hereinafter abbreviated NORGES VEL). NORGES VEL has received and administered the funding based on a contract with NORAD.

The total budget for the current programme is NOK 56.5 millions. Half of this amount is counterpart contribution deriving from previous fertiliser support funded from Norway, and 28,2 mill represents fresh funding provided by NORAD. NORGES VEL has the overall financial and reporting responsibility to NORAD for the programme.

The main objective of the programme has been to improve the standard of living for farmers, both men and women, in the Vakinankaratra region of the High Plateau of Madagascar. For milk production the geographic focus is on the Milk Triangle and for the tuber crops the programme is national. The Strategy of FIFAMANOR has been described as follows:

- Competence building of staff on station and in the field
- Integration of research and extension activities
- Support farmers organisations; milk producers' and seed producers' cooperatives
- Establish a network of highly qualified extension agents living in the villages
- Supply breeding bulls and maintain breeding stations
- Supply seed material of potatoes, wheat and tritacle
- Cooperate with other institutions and organisations working in the same or related fields

The main focus of the programme is on the promotion of

- 1) grain production (wheat and tritacle);
- 2) potatoes, sweet potatoes and other tubers;
- 3) milk production, fodder production and genetic improvement of the livestock;
- 4) a social programme for integration of women into production activities;
- 5) a competence centre for research related to the above;
- 6) support to farmers' organisations;

- 7) effective use of scientific and technical knowledge
- 8) a training centre for farmers and extension workers.

2. Background and focus for the review

The review will primarily assess the outcomes of the FIFAMANOR programme in relation to the programme matrix, but with a view to previous achievements and challenges of the work with FIFAMANOR, and with a view to related programmes implemented by the Malagasy authorities and programmes supported by Norway and other donors. The review will also assess the possible need for continuation of specific elements of the programme and the prospects of handing over other elements to public or private institutions in Madagascar.

The review was provided for in the contracts for the ongoing programme. A review of this kind is an important element of the programme cycle and will form the basis for formal termination procedures and for approving the expenditures of the programme. The findings will be used as a basis for learning within FIFAMANOR itself, within NORAD and the main Norwegian partner NORGES VEL, and within other relevant authorities in Madagascar and Norway. The findings will also be used as a basis for assessing a possible new programme in support of FIFAMANOR or other parts of the agricultural sector in Madagascar.

3. Methodology

The review will be based on study of the programme documentation and previous programme reports, and a study of relevant policies and development plans in Madagascar, as well as Norwegian policies. Field visits will be conducted to key sites for programme implementation. Interviews with FIFAMANOR staff, project beneficiaries (including community and household level) and other key stakeholders in Madagascar as well as interviews with NORGES VEL will be an important part of the data collection. The review will focus on the activities organised under the NORAD funded programme, but since these are integrated in the overall FIFAMANOR programme, the review will also to some extent reflect the situation for the institution as such.

4. Issues to be covered

The review is expected to cover the following issues:

A) Efficiency

- Assessment of efficiency: the programme implementation arrangements and the institutional performance of FIFAMANOR in relation to agreed responsibilities (financial management and internal audit procedures, use of counterpart contribution, technical services, administrative services, suitability of institutional structures etc.)
- The quality of administrative and technical support from NORGES VEL for the implementation of the programme
- Assessment of the reporting procedures, as well as reasons for and effects of periodic complications/delays in the reporting
- Assessment of the follow up of recommendations from previous reviews

B) Effectiveness

- The delivery of programme outputs and the degree of fulfilment of objectives
- The effect of external factors on the programme performance

- Assess the effectiveness of FIFAMANOR's collaboration with external public and private partners, its role in development of producers' organisations, and the process of transfer of certain tasks to partner organisations (e.g. to PRN)
- Assess the process of developing FIFAMANOR as a national competence centre for specific topics and the handing over of specific tasks including uptake promotion to other institutions
- Assess the extension methodology used by FIFAMANOR under the programme, and identify potential improvement opportunities, including increased integration with other extension services

C) Relevance and impact

- The relevance of the programme in relation to the overall developmental challenges in Madagascar, challenges in relation to agricultural development, the policy environment in Madagascar and Norway and the needs of the beneficiaries (mainly FIFAMANOR and the end users)
- Assess the outcomes of the gender specific components on integration of women into production activities
- Assessing the role of FIFAMANOR in the national research and extension setting and possible links to the national agricultural research organisation FOFIFA and the regional agricultural research organisation ASARECA.
- Assessment of programme impact. In this regard, effects of the long-term support to FIFAMANOR is relevant. The discussions should include effects on
 - Household and community level,
 - Institutional and policy level.

The assessment should also reflect possible effects on gender relations, health and nutrition and capacity/qualifications of staff including extension workers

D) Sustainability

- Assessment of sustainability related to the following parameters; *financial and economic, institutional, socio-cultural and environmental*.
- Review of long term funding options and exit strategies for the donor; opportunities for handing over elements of programme activities to the established producers organisations and related companies, opportunities for linking up with regular national extension services for agriculture etc.

E) Lessons learned, conclusions and recommendations

- The report should include a summary of lessons learned, conclusions and recommendations based on the above assessments
- Based on the findings of the review, identify potential remaining or new activities that may need further donor support, and suggest exist strategies for various components of the programme, with a view to identify pathways for making components sustainable within a reasonable timeframe.

5. The evaluation team

The team should include two international and one national expert, with extensive experience in agriculture and rural development in sub-Saharan Africa. The expertise should include the

following fields: agriculture including milk production, development policies and institutional development issues, extension systems, Madagascar country knowledge, evaluation methodology, social science, gender issues, development economics, financial management and research administration. The team should cover the following languages: French, English, Norwegian and Malagasy.

6. Timetable and budget

The review should take place in September-October 2005. The time allocated will be about 3 weeks in the field and 2 weeks for preparation and report writing. The tentative budget is NOK 530 000 which includes honorarium, travel and subsistence costs and miscellaneous costs.

7. Reporting

The team will have a briefing with the embassy at the start of the fieldwork, and will deliver a summary of findings and recommendations to the embassy at the end of the fieldwork. The team will submit a draft report within 2 weeks after completing the fieldwork. Stakeholders in Norway and Madagascar will be given 10 days to comment, and the team will submit the final report 1 week after receiving these inputs.

The report should not exceed 30 pages plus relevant annexes. The report should be written in English, with an extended summary in French. The report will be delivered to NORAD and to the Embassy in 4 and 6 copies respectively.

Antananarivo July 1st 2005

Ambassador

Appendix 2 - Background material

Background material that will be of importance for the review (the list is not exhaustive)

- **Plan Quinquennal et Budget 5 ans – project document- French**
- **Contract NORAD – NORGES VEL 10/8/2000 - Norwegian**
- **Contract of cooperation NORGES VEL – Fifamanor av 12/9/2000 –Norwegian/French**
- **Referater fra Årlige møter Norges Vel/Fifamanors styre –French**
- **Annual "Rapport d'Activités" from Fifamanor (2000-2004) - French**
- **Annual "Plan d'Opérations" from Fifamanor (2001-2005) - French**
- **Annual reports from NORGES VEL to NORAD (2000 – 2004) - Norwegian**
- **Report from mid-term evaluation of Fifamanor aug.2003 – French**
- **Gender Strategy" December 2003 – English/French**
- **Annual accounts and audit reports for Fifamanor (2000-2004) – French**
- **MOU Norway – Madagascar 2004 – Norwegian /French**
- **Review of Norwegian cooper**
- **Décret N°92/853 portant création et organisation de la FIFAMANOR – French**
- **Programme de Développement Régional du Vakinankaratra – 2005 - French**
- **Plan Directeur quinquennal pour le Développement Rural – 2004 - French**
- **Les Principaux résultats de l'Observatoire Rural d'Antsirabe – 2004- French**

Appendix 3 - Programme de l'Equipe d'Evaluation

Programme de l'Equipe d'Evaluation de FIFAMANOR du 09 octobre au 26 octobre 2005

| Journée / Date | Activités |
|--|---|
| Dimanche 09 octobre | Arrivée à Antananarivo à 21h55 Coucher à Antananarivo |
| Lundi 10 octobre | - Rencontre avec l'Ambassade du Royaume de Norvège à Antananarivo - Rencontre et visite de courtoisie avec le Secrétaire Général (SG) de l'Agriculture de l'Elevage et de la Pêche - Départ pour Antsirabe - Coucher à Antsirabe |
| Mardi 11 Octobre | - FIFAMANOR : rencontre avec le Directeur et tous les Chefs de Département, pour la mise au point et détails de programme - Visite du ferme TIKO |
| Mercredi 12 et Jeudi 13 octobre | Rencontre et visite de courtoisie auprès du Chef de Région du Vakinankaratra Entretiens avec les Départements et les Chefs de section , par Département - Département Elevage - Département Vulgarisation et développement social - Département Recherche - Cellule Semences - Département Administratif et Financier - Cellule Pistes Rurales - Suivi Evaluation |
| Vendredi 14 octobre | Rencontre avec partenaires, producteurs, Organisations paysannes - Visite d'une grande ferme laitière: HOAREAU - Visite d'une ferme moyenne à Ambohibary |
| Samedi 15 octobre | - Visite de fermes laitières |
| Lundi 17 octobre | - Visite de laiterie TIKO Antsirabe at les responsables pour la vulgarisation TIKO - Visite de ROVA - Visite de l'ONG PRN |
| Mardi 18 octobre | - Visite des OP – GPS Multiplicateurs de semences - Visite des OP féminines |
| Mercredi 19 octobre | - Parcours d'un axe de pistes rurales réhabilitées (ex: Soanindrarinny) - Visite Centre de collecte - Laiterie local |
| Jeudi 20 octobre | - Visite poste IA - Visite des paysans partenaires dans la zone de Betafo |
| Vendredi 21 octobre | - Visit de producteurs du semence |
| Samedi 22 octobre | Rencontre avec le Représentant de la FAO. Martin Smith , Antsirabe |
| Dimanche 23 octobre | Rédaction du rapport minute |
| Lundi 24 octobre | Restitution minute auprès de FIFAMANOR, Voyage à Antananarivo Rencontre avec Mr. RAKOTONDRAMANANA Rencontre avec Patrice Harou, Banque Mondial |
| Mardi 25 octobre | Restitution auprès du SG MAEP Restitution auprès de l'Ambassade du Royaume de Norvège |
| Mecredi 26 Ocotbre | Visite Centre Technique Horticole d'Antananarivo Rencontre avec le Directeur Général de FOFIFA: RASOLO François Départ pour OSLO |

Appendix 4 - Abbreviations

| | |
|-------------------|---|
| AFD | Agence Française pour le Développement |
| CECAM | Caisse d'Épargne et de Crédit Agricole mutuelle (Credit organisation) |
| FIFAMANOR | <i>Fiompiana Fambolena Malagasy Norvéziana</i> (Centre de Développement rural et de recherche appliquée issu d'un projet de coopération bilatérale entre la Norvège et Madagascar) |
| FOFIFA | <i>Foibem-pirenena momba ny Fikarohana ampiharina amin'ny Fampanandrosoana ny Ambanivohitra</i> (Centre de Recherche Appliquée au développement rural) (Applied agricultural research and development Center) |
| GCV | Grenier Commun Villageois |
| GSDM | Groupe Semis Direct à Madagascar |
| KOBAMA | Minoterie " <i>Koba Malagasy</i> " (mill) |
| PRAPACE | Programme Régional d'Appui à l'amélioration de la Pomme de terre et de la Patate douce en Afrique Centrale et Orientale |
| PRN | Pie Rouge Norvégienne |
| PSDR | Programme de Soutien pour le Développement Rural (World Bank programme) |
| ROVA | <i>Rononon'i Vakinankaratra</i> , Fédération des producteurs laitiers du Vakinankaratra. |
| NORGES VEL | <i>Selskap for Norges Vel</i> (Société royale Norvégienne de Développement) |
| VMMV | <i>Tany sy Fampanandrosoana</i> (Terre et Développement, dénomination d'un ONG) <i>Vondron'ny Mpamokatra Masombolin'ny Vakinankaratra</i> (Fédération des producteurs de semences du Vakin/tra) |
| GENO | |
| CIAT | Centro de Investigación Agrícola Tropical |
| ILRI | International Livestock Research Institute |
| ICRAF | World Agroforestry Centre |

Appendix 5 -- List of persons met

Marius RATOLOJANAHARY - Secrétaire Général du Ministère de l'Agriculture, de l'Elevage et de la Pêche

Lanto RABENATOANDRO - Chef de la Région du Vakinankaratra

Hans Fredrik LEHNE - Ambassadeur du Royaume de Norvège à Madagascar

Lillian WIKSTROM - Conseillère - Ambassade royale de Norvège à Madagascar

Martin SMITH - Représentant de la FAO à Madagascar, Comores, Seychelles, Maurice

François RASOLO - Directeur de la FOFIFA

RAKOTONDRAMANANA - Directeur Exécutif du Groupement Semis Direct Madagascar

Baholy RAMAROSON - Présidente du Comité de Direction de FIFAMANOR

Personnel de FIFAMANOR

Dr Herman RASAMIZAFIMANANTSOA - Directeur

Vololoniaina RAMALANJAONA - Responsable du Suivi Evaluation

Marie Thérèse RAZAFINDRAVAO - Directeur Administratif et Financier

Jean Marie RANDRIANAIVOARIVARY (et son équipe) - Chef du Département Recherche

Jaona RAKOTONIAINA (et son équipe) - Chef du Département Vulgarisation

Njara RAVELOSON (et son équipe) - Chef du Département Elevage

Samoela RAHARISON - Cellule Semences

Toky RAMAHARINATREHANA - Cellule Pistes Rurales

Jovain RAKOTONIAINA - Ambre Associates

Alexandre RANDRIAMAHALEO - Directeur Rononon'i Vakinankaratra (ROVA)

Haja RAKONTONDRAVELO - Responsable Production ROVA

Dr Mamisoa RAZANAJATOVO - Directeur de PRN

RALAIVAO - Directeur Laiterie TIKO

ROLAND - Directeur Collecte Lait TIKO

Douglas ANDREWS - Responsable Ferme d'élevage TIKO

RABARY - Responsable Vulgarisation TIKO

Centre Technique Horticole d'Antananarivo (CTHA)

- | | |
|--|--|
| - Hoarau Gilbert (ferme laitière) | Mahandraza/Andranomanelatra |
| - Raharitiana Jacquot Louis (Ferme laitière) | Ambohibary |
| - Rasamimanana (ferme laitière) | Atsimombary/Ambohibary (Antsirabe II) |
| - Ranaivo Jules (ferme laitière) | Antanivao/Tsaravavaka-Andra/tra (Antsirabe II) |
| - Rakotondranaivo Edizai (ferme laitière) | - « - |
| - Association Andry FTM (Production de lait) | Manazary/Tsaravavaka Andran/tra (Antsirabe II) |
| - Rasolonjatovo Gérôme (ferme laitière) | Ambatomena Verezambola (Antsirabe I) |
| - Rabekoriana Olivier (ferme laitière) | Mahafaly (Antsirabe I) |
| - Association Féminine Fiaretantsoa (GCV et activités agricoles) | Ambokovoko/Manampisoa/Ambano (Antsirabe II) |
| - Association Féminine SALOHY (GCV et activités agricoles) | Ambohijanaka - “ - |
| - Coopérative Meva (Product° de semences) | Androkavato/Ambano (Antsirabe II) |
| - Association Féminine SAFIDY (Ferme | Befaritra (Antsirabe I) |

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|---|--|
| Laitière) | Befaritra (Antsirabe I) |
| - Coopérative Mahavatsy ROVA (Centre de Collecte de lait et Ventes intrants) | Mandriankeniheny (Antsirabe I) |
| - Association Féminine (Production œuf, Production légume) | Mandriankeniheny (Antsirabe I) |
| - Association Féminine Fivoarana (ferme Laitière) | Sahanivotry Est/Tsar. Sahanivotry (Antsirabe II) |
| - Société Saveur TSARASAHA (Fromagerie) | Tsarahonenana Sahanivotry (Antsirabe II) |
| - Associat°. Féminine FITAVEMA (Ferme laitière) | - “ – |
| - Andriatsitohaina Jean Aimé (Fromagerie) | Soanindrariny/Ambatomena/Ambohidranandriana/ Ambohimiarivo/Antanambao/Tsarahonenana Sahanivotry (Antsirabe II) |
| - Commune Soanindrariny (Association des Usagers de Pistes) | Alakamisy Anativato (Betafo) |
| - M Justin R (Production du blé) | Ambohijatovo (Betafo) |
| - Rasolofonomenjanahary Jeannot | -“- |
| - Rakotondravony Jeanson | -“- |
| - Rakotondrina Nicolas Arsène | Merimandroso (Betafo) |
| - Razafindrakoto William J. José (ferme laitière) | Merimandroso (Betafo) |
| - Ranoarivony (ferme laitière) | Villa Sahy, Ouest Tatamarina (Betafo) |
| - Rabeholimanana C. (ferme laitière) | Andrefatsena (Betafo) |
| - Razazaroanabavy Germaine (ferme laitière) | Antsongombato/Andrimasoandro (Betafo) |
| - Rakotondrabe Justin (ferme laitière) | Ambohimahatsinjo/ - ” – |
| - Randrianaivo Jules (ferme laitière) | - ” – |
| - Randrianantenaina Clovis (ferme laitière) | Miandrarivo/Ambohiambo (Betafo) |
| - Ramorasata (ferme laitière) | Fenomanana (Feromanarintsoa/Vinaninony Nord (Faratsiho) |
| - Association Féminine FANAZAVA (Production Agricole et production de lait, stockage de pomme de terre) | Faravohitra/Vinaninony Nord (Faratsiho) |
| - Coopérative MEVA | Mahafaly (Antsirabe I) |
| - Coopérative ROVA | Tsarasaotra (Antsirabe I) |
| - ONG PRN | NMS |
| - Jakob Vea | |

