FONDS D'INTERVENTION POUR LE DEVELOPPEMENT

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MID-TERM EVALUATION RESULTS THE FIAVOTA PROGRAM

MAIN REPORT

December 2018

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Abbreviations and acronyms

AGEE	Registration and Technical Supervision Agency
AIR	American Institutes for Research
AM	Acute Malnutrition
CAETIC-Development	Centre d'Appui à l'Exploitation des Technologies de l'Information et de la Communication et au Développement
CHW	Community Health Worker
CISCO	School District
CNW	Community Nutrition Worker
CPES	Certificate of Primary Elementary Studies
EBE	Spaces of well-being
EFP	Essential Family Practices
FAO	Food and Agricultural Organization
FCS	Food Consumption Score
FDS	Food Diversity Score
FID	Intervention Fund for Development
FPU	Family Production Unit
GER	Gross Enrollment Rate
HDCT	Human Development Cash Transfer
HFIAS	Household Food Insecurity Access Scale
HH	Head of Household
INSTAT	National Institute of Statistics
JIRAMA	Jiro sy Rano Malagasy (Madagascar Water and Electricity)
MAM	Moderate Acute Malnutrition
MAS	Severe Acute Malnutrition
MGA	Ariary (USD 1 equals MGA 3400)
ML	Mother Leader
MPPSPF	Ministry of Population, Social Protection and Promotion of Women
NER	Net Enrollment Rate
NGO	Non-Governmental Organization
ONN	National Office of Nutrition
PSM	Propensity Score Matching
SPC	Social Protection Committee
SSI	Survival Strategy Index
SSN	Social Safety Net
UCT	Unconditional Cash Transfer
UNICEF	United Nations Children's Fund
UPNNC	National Community Nutrition Program
WFP	World Food Program
WHO	World Health Organization


MPTSPF
ONN
FIAVOTA
Hagnamaivàgnaty fanasahiragnagne
ama ty fialgnagne. Tetik' asa aroso i
Fanjakagne Malagasy
LA BANQUE MONDIALE
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Aknowledgements

This report was prepared by Faly Rakotomanana (Lead Investigator, Consultant, World Bank), Zo Tahiana Randrianatoandro (Consultant, World Bank) and Julia Rachel Ravelosoa (Senior Social Protection Economist, World Bank) and is the result of an analytical work using data from the baseline survey (2016/2017) and the mid-term survey (2018) of the FIAVOTA program, an adaptive social safety net program for vulnerable households in southern Madagascar.

The entire process, including preparation of the evaluation methodology, supervision of data collection, data quality assurance, report writing, validation workshops and report finalization - was carried out over the period from October 2017 to December 2018. It was conducted under the supervision of an assesment committee led by the Ministry of Population, Social Protection and Promotion of Women (MPPSPF) and composed of the Intervention Fund for Development (FID), the National Nutrition Office/National Nutrition Community Program Unit (ONN/UPNNC), the World Bank, and UNICEF.

Technical guidance of the process was jointly ensured by Julia Rachel Ravelosoa (Senior Social Protection Economist, World Bank) and Ndriakita Solonionjanirina (Research and Evaluation Specialist, UNICEF) with the contribution of Andrea Vermehren (World Bank), Ana Gabriela Guerrero (UNICEF) and Laura Rawlings (World Bank). The data collection and analysis methodologies were entrusted to Faly Rakotomanana (Lead Investigator, Consultant, World Bank) and Mitchell Morey (Firm AIR, Consultant to UNICEF). Data collection was carried out by the firm CAETIC-Développement.

Several discussion sessions were held with the assessment committee from the design of the methodology to the finalization of this report. In particular, a first version of the results was presented and discussed intensively during two workshops organized in June and September 2018, respectively. The assessment committee is grateful to participants to the workshops and various technical validation meetings for their active participation in the discussions and their valuable inputs on the evaluation methodology and analyzes.

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The report has twelve chapters. The first three chapters provide a description of the FIAVOTA program (Chapter 1), the methodology of the impact evaluation (Chapter 2) and the profiles of program beneficiaries (Chapter 3). The other nine chapters successively analyze the different evaluation topics, namely poverty and household well-being (Chapter 4), consumption and food security (Chapter 5), employment and the labor market (Chapter 6), agriculture and livestock (Chapter 7), health and nutrition (Chapter 8), education (Chapter 9), support measures (Chapter 10), the place of women and violence (Chapter 11) and the time use of female beneficiaries (Chapter 12). The assessment committee hopes that the results of this study will provide inputs for political and operational decision-making to public authorities as well as to the various partners with a view to improving social protection programs in the South and, more generally, to strengthening investments in fighting chronic poverty in the Great South.

Executive summary

Southern Madagascar, a region affected by the El Niño phenomenon with reduced rainfall

Southern Madagascar is one of the least developed areas of the country. As a result, levels of nutritional, agricultural and educational development were already low even before the 2016 drought. In addition, climate in the South is usually arid. As a result, any reduction in rainfall can be disastrous for farmers, who make up the vast majority of the population. During the 2015-2016 rainy season, due in particular to the El Niño phenomenon, rainfall dropped sharply, reaching only 50 to 80 percent of normal levels (Di Liberto, 2016). Crop yields in 2016 were 90 percent below normal.

FIAVOTA program: from an emergency response mechanism to resilience-building

To provide solutions to the 2016 drought situation, chronic poverty and food insecurity in the South of the country, the Government of Madagascar declared the state of emergency in Southern Madagascar in September 2016 and developed a social protection and nutrition program called "FIAVOTA" (meaning "rescue" in the local dialect of southern Madagascar), targeting households in the most affected districts as part of the National Policy for Social Protection. The objective of the program is to improve the well-being of poor households in the short term by improving their consumption; to strengthen their resilience and revive economic activities; and to encourage families to invest more in human development through the education, health and nutrition of their children. The FIAVOTA program is coordinated by the Ministry of Population, Social Protection and Promotion of Women and is implemented by the "Intervention Fund for Development" (FID), the Malagasy development agency. The World Bank and the United Nations Children's Fund (UNICEF) provided technical and financial support to the Government of Madagascar to implement this program. The program started in December 2016 for an initial period of three years. During the first phase, FIAVOTA aimed to meet the immediate basic needs of households and support their economic activities. During this phase, between December 2016 and March 2018, cash transfers were paid to over 55,000 households meeting the following criteria: (i) have at least one child under 5 and (ii) be enrolled in a community nutrition site. Cash transfers under the FIAVOTA program took place in the five southern districts with the highest malnutrition rates in the province of Toliara. During this period, transfers under the program combined unconditional cash transfers (UCT) amounting to MGA 30,000 per month with transfers called "livelihood recovery" amounting to MGA 180,000 for the entire period, and support measures. During the program's second and third years (2018-2020), the transfers would take the form of human development cash transfers (HDCT) and would focus on strengthening household resilience. The program reached about 15,000 households, most of whom have at least one child aged 6 to 12 years.

A series of joint World Bank-UNICEF reviews of mid-term impacts of FIAVOTA

A monitoring and evaluation system consisting of a series of surveys (baseline, midline and endline) has been put in place since the beginning of the FIAVOTA program. In 2018, as FIAVOTA was reaching its mid-term, a series of analyses relating to mid-term impact assessment was conducted jointly by the World Bank and UNICEF in collaboration with the Government, FID and the ONN/UPNNC. For 2018, the results of the impact analysis conducted by the World Bank[1] using dynamic indicator review and the propensity score matching (PSM) method highlighted the immediate or short-term effects of the FIAVOTA program on beneficiary households. At the same time, UNICEF carried out a study to understand the effects of transfers in the humanitarian context [2]

This report presents the results of the dynamic analysis of key indicators and the assessment using quasi-experimental cross-sectional methods to estimate the net impact of the FIAVOTA program on beneficiaries during the first phase. This assessment used propensity score matching (PSM) techniques to create treatment and comparison groups that are similar. The study reviews the impacts of the program both at the household level and at the level of individual members of beneficiary households. The two analyzes agree that, overall, the FIAVOTA program has had positive and significant impacts on the various indicators chosen.

[1] Impact Evaluation of FIAVOTA Phase 1 Emergency and Recovery Cash Transfer in Madagascar: Midline Report, November 2018, Morey M. - Seidenfield D., American Institutes for Research, Ministère de la Population, de la Protection Sociale et de la Promotion de la Femme - UNICEF - The World Bank, novembre 2018

[2] Résultats de l'évaluation à mi-parcours du Programme FIAVOTA-Rapport principal : The World Bank, Ministère de la Population, de la Protection Sociale et de la Promotion de la Femme - The World Bank - UNICEF, Janvier 2019

The FIAVOTA program has a positive impact on households' living conditions.

... Reduction of food poverty

The FIAVOTA program has a clear positive impact on the well-being of beneficiary households. While most of the households remained classified as being in extreme poverty (below the food poverty line), **the FIAVOTA program has significantly reduced the food poverty ratio and the subjective poverty ratio among the beneficiaries** compared to the control group, by 5 points and 1 percentage point, respectively. In terms of intensity of monetary poverty, the gap in current food consumption relative to the food poverty line is 14 percentage points lower for poor beneficiary households than for the control group.

... Overall improvement in consumption

The impact of the FIAVOTA program on food consumption and food security is also positive and significant. The results of the review show that the situation is significantly better for beneficiary households compared to control group households, not only in terms of amounts consumed, but also in terms of quality of the diet. In terms of amounts of food consumed, a beneficiary household consumes much more than a household in the control group. Over the last 12 months preceding the interview, a beneficiary household spent on food an average MGA 220,100 (or USD 65) more than a household in the control group. As for the value of consumption (including expenditure, self-consumption and donations/transfers), the difference is also statistically significant and is estimated at MGA 238,000 (or USD 70) at the benefit of beneficiary households. With the difference observed in terms of monetary expenditure (purchases) on food, it can be estimated that at the current level of cash transfers, MGA 100 transferred leads to an increase of MGA 62 in food expenditure, meaning that there are MGA 220,000 (or USD 65) of additional purchases after MGA 360,000 (or USD 106) were granted. These results are consistent with results from international studies. However, **female-headed households are highly dependent on the FIAVOTA cash transfers to meet their daily food needs**. For this category of households, the difference in consumption is no longer significant, while it is clearly positive and significant in terms of food expenditure or purchases.

... Noticeable progress in diet diversity

The FIAVOTA program also has a marked positive impact on diet (quality, accessibility, use). The differences between beneficiary households and control group households, whether for the Food Diversity Score (FDS), the Food Consumption Score (FCS) or the Survival Strategy Index (SSI) are all statistically significant to the benefit of beneficiary households: 0.8 points for FDS, 10 points for FCS and - 1.4 points for SSI1. The differences between the two groups of households are 6 points, whether for the proportion of households with "Little varied" diet (according to the FDS) or the proportion of households that are "severely insecure" (according to the HFIAS).

The diversity of beneficiary households' diet improved between 2016 and 2018 and is significantly higher than that of control group households. The program has enhanced beneficiary households' diet diversity and has increased their consumption of essential staple such as vegetables, fruits, fats and proteins (legumes, meat, poultry and fish). The improvement of beneficiary households' diet is confirmed by the analysis of the changes in the FCS. On the one hand, in 2018, households with poor food consumption (with an FCS less than 21) now represent less than 16 percent of households, compared to more than 54 percent in 2016. On the other hand, more than 58 percent of households have "Acceptable" consumption (against 1 percent in 2016).

In addition, **the impacts on current non-food consumption are also consistent with those of other studies of cash transfers. The program has led to increases in the consumption of soap and personal care products.** This result could improve health outcomes in the medium and long terms, as handwashing is part of the messages conveyed under FIAVOTA's support measures, and can significantly reduce the spread of viral and bacterial infections associated with common childhood diseases.

The FIAVOTA program improves households' resilience and economic activities.

... Increases in household income

FIAVOTA cash transfers make a large contribution to the income of beneficiary households. For a given level of income reported, beneficiaries earn MGA 21,500 (or USD 7) per month more than those in the control group. While in 2016, more than eight out of ten beneficiary households earned less than MGA 50,000 (or USD 15) per month, they represent only 46 percent of households in 2018. Currently, more than 35 percent of beneficiaries earn between MGA 50,000 and MGA 100,000 (or USD 15 - USD 29) per month and 14 percent between MGA 100,000 and MGA 200,000 (or USD 29 - USD 59) per month.

... Rebuilding households' home and productive assets

More and more beneficiary households have been able to acquire equipment or durable goods again. This concerns both home equipment and productive equipment. The proportion of households who purchased kitchen equipment in the last 12 months is 21 points higher among beneficiaries than in the control group. With regard to productive equipment, the rate of ownership has slightly increased at more than 4 points for carts and 3 points for plows. The proportions of beneficiary households that purchased these goods are consistently higher among beneficiary households than among control group households. On the other hand, the rate remains practically stable with regard to ownership of land. The contribution of FIAVOTA cash transfers has not yet enabled households to make large investments.

... Strengthening economic activities

Overall, the FIAVOTA program has had a positive impact on employment and economic activities. The cash transfers granted mainly favored the creation of family production units among beneficiary households. The proportion of adults who started a family production unit in the last 12 months is 12 percent higher compared to household members in the control group. This is the direct effect of the livelihood recovery (Renivola Fiharia) granted to beneficiary households in order to help revive or recapitalize income-generating activities. Beneficiary households are creating more and more family production units. In 2018, nearly 38 percent of the households had more than one production unit: 33 percent owned two production units and 4 percent more than two production units. In 2016, less than 15 percent of households had more than one production unit. Newly created production units are often run by women who previously worked as simple caregivers. This situation is the direct result of the program's procedure of choosing only women who care for children under 5 as direct beneficiaries of the funds allocated.

The impact of the FIAVOTA program on labor market integration is mixed as regards certain categories of individuals, particularly among young people and secondary members of the household. For all individuals aged 18 and over, the participation rate is 5 points lower among beneficiary households compared to the control group. However, it should be noted that this negative impact is only significant for individuals aged between 18 and 29 years. On the other hand, for age groups 30 and over, the decrease in the activity rate are statistically insignificant. For some categories of individuals, the decrease in the participation rate among beneficiary households is fairly low (around one point) even if they are statistically significant, as is the case for women

and heads of households. This situation could result from the lack of job opportunities in the intervention zones and from the redistribution of tasks within the household following the improvement of the monetary situation of the household.

Between 2016 and 2018, the multi-activity rate has sharply increased among active adults. It increased from 29 percent to 33 percent for those aged 30 to 49 and from 25 percent to 29 percent for those aged 50 and over. On the one hand, carrying out several activities is one of the possible strategies for minimizing risks and mitigating the effects of economic shocks on households' living conditions. On the other hand, as one of the effects of cash transfers, the improvement of cash flow and disposable income allows beneficiary households to create new production units.

... Strong growth in sheep and goat farming, but low impact on agriculture

The impact of the program is more tangible when it comes to sheep and goat farming among beneficiary households. The proportion of households breeding these animals is more than 44 percentage points higher than in the control group. The dynamics are quite extraordinary especially for sheep and goat farming. In fact, the difference in the proportions of households breeding these animals between the beneficiaries and the control group is 66 percentage points. For this type of farming, the program has led to an increase of net investment by MGA 172,000 (or USD 51), which is practically the entire amount of working capital allocated to households (MGA 180,000 or USD 53).

On the other hand, the impact of the FIAVOTA program on agriculture is rather mixed. Though the proportion of farming households in beneficiary households has dropped by 5 points compared to control group households, the proportion of households combining both agriculture and livestock has increased by 22 percent. **The program has positive but relatively weak impacts on a few indicators such as surface area farmed and crop yield for some crops such as maize.** The total farmed area increases by 0.44 acre per beneficiary household. In terms of productivity or agricultural yield, a slight increase of about 0.4 ton/ha has been recorded for maize. Beneficiary households do not make special efforts to revive agricultural activities. Agricultural activities developed mainly in households whose heads are not farmers. Regardless of the business sector of the head of household, the proportion of households practicing agricultural activities increases significantly. On the other hand, among households whose head considers him/herself as a "farmer", the proportion is sharply decreasing. This situation may find an explanation in the fact that agricultural activities in this region

are very low in profitability and highly vulnerable to several hazards (especially climatic hazards) and require from those involved in them to have other activities or sources of income to support them. In this sense, agricultural activities are performed as "secondary" activities by households.

The FIAVOTA program contributes to human development and women's empowerment.

... Improved health and malnutrition status

On the social side, the FIAVOTA program has a clear positive impact on the health and nutrition of children in beneficiary households. Resilience to diseases has improved. The incidence rate of illness among beneficiaries is 8 percentage points lower than in the control group. In 2018, less than 17 percent of the beneficiary population was ill, down from 25 percent in 2016. The health facility attendance rate is 22 percentage points higher among beneficiary households: the difference is much larger among female-headed households (31 percentage points). This improvement in health status is felt at the household level: the proportion of households reporting good health has increased by more than 4 points over the same period.

The impact of the FIAVOTA program on the nutritional status of children is generally positive. The rate of severe acute malnutrition (SAM) among children aged 6-59 months in beneficiary households is 1.8 percentage points lower than in the control group. The difference is larger for female-headed households at 2.4 percentage points. Over the 2016-2018 period, the SAM rate fell sharply among beneficiary households from 9 percent in 2016 to 4 percent in 2018. Exclusive breastfeeding until the age of 6 months is practiced for more than 52 percent of children in 2018 against only 40 percent in 2016. These results have led to advocating for "cash-plus" approaches that exploit synergies between cash transfers and complementary services (Roelen et al., 2018). Beneficiary households also spend about 30 percent more money on health care for their children than comparison households. Nevertheless, when comparing with the situation of control group households, the effects of the FIAVOTA program are not tangible in some cases, such as child feeding (children aged from 6 to 23 months) and family planning.

... Progress in the children's education

As regards children's education, the effects of the FIAVOTA program are largely positive. The net primary enrollment rate is 12 percentage points higher among beneficiary households compared to control households, and the positive difference was 10 percentage points in terms of gross enrollment rate. The impact is fairly large among male-headed households. Between 2016 and 2018, the net enrollment rate of children in primary school has increased by more than 7 percentage points among

beneficiary households. Absences from school are becoming less and less frequent. Moreover, in case of dropping out of school, the lack of financial means is less and less mentioned as being the cause at 60 percent of cases in 2018 against 75 percent of cases in 2016. These improvements are well perceived by FIAVOTA beneficiary households themselves.

... Reduction of child labor

The FIAVOTA program has another positive impact in that it reduces early entry of children aged 5 to 17 into the labor market. This would have medium and long-term impacts on human capital, the development of the labor market and remuneration. The incidence of child labor among beneficiary households is 8 percent lower compared to that observed in control group households. The incidence of child labor has dropped sharply among beneficiary households. In 2018, less than 10 percent of children aged 5 to 17 are engaged in an economic activity while this proportion exceeded 27 percent in 2016.

... Strengthening women's position in the household

The FIAVOTA program strengthens women's position in the household. In 2018, women's involvement in economic activities is better appreciated in the household: 94 percent of heads of household accept their involvement against 77 percent in 2016. **The involvement of women from beneficiary households in economic activities has partly strengthened their position in the household through greater involvement in the decision-making process in 2018 compared to 2016**. With regard to activities conducted by households, 54 percent of women were involved in household decisions in 2018 compared to 38 percent in 2016. As for decisions on capital expenditure, 45 percent of them were involved in 2018 against 30 percent in 2016.

Domestic violence against women in beneficiary households remained more or less stable on average compared to control households. However, the results suggest that reputation earned by women through their status as mother-leaders reduces the risk of spousal violence against them. Indeed, many more cases of domestic violence were reported among households without a mother-leader compared to those with one.

And other achievements in terms of social cohesion and perception of well-being

... Consolidation of social capital and social cohesion

The positive impact of the FIAVOTA program on household well-being and self-esteem is reflected in the willingness of beneficiary households to join various associations. Results show that the social capital of beneficiary households has widened over the 2016-2018 period. However, the type of associations households joined is limited

to parents' associations at schools, religious associations, neighborhood associations and professional associations. The membership rates are consistently higher among beneficiary households compared to the control group and the differences are all significant except for the case of the family association. This result is predictable to the extent that membership in this type of association is rather conditioned by the existence of natural links between members independently of other exogenous characteristics. **It should be noted that no major changes have been observed as regards the feeling of being marginalized between 2016 and 2018. The rate remains very low (around 7 percent of households) and there is no significant difference between beneficiary households and the control group.** This result stems from the fact that cohesion or Fihavanana is one of the social values still highly upheld in the Malagasy society in general and in the Southern Region in particular, and does not depend on the population's standard of living or the region's level of development.

... Less and less recourse to coping strategies

FIAVOTA has improved the resilience of beneficiaries. Most of this impact is attributed to improving their food security and reducing the number of households turning to negative coping strategies. Recipient households are less likely to reduce the amount of food consumed per meal, reduce the number of meals they eat to cope with shocks, collect wild food for meals, sell household items or send household members to another home to get food. Together, these effects mean that beneficiary households are more stable and can look for positive coping mechanisms to face shocks rather than negative mechanisms that push them further into poverty and create other problems.

A better perception of well-being by the beneficiaries of the FIAVOTA program

These positive results identified through an objective approach are well perceived by the households themselves. The subjective perception of economic well-being and monetary situation has significantly improved among households benefiting from the FIAVOTA program. While at the beginning of the intervention, the households targeted by the FIAVOTA program were deeply depressed, the situation has improved a lot in 2018. The proportion of beneficiary households reporting "living in difficulty" is 29 points lower compared to control group households. Similarly, the proportion of households resorting to indebtedness is lower by 4 percentage points among beneficiaries compared to the control group. The proportion of households that are dissatisfied with their financial situation has also fallen sharply1. In 2018, less than 57 percent of the population reported "living in difficulty", against 92 percent in 2016. Less than two-thirds of households used external mechanisms to meet their basic needs. In 2018, less than one household in four had to go into debt while this proportion exceeded 64 percent in 2016.

While they are still at fairly high levels, non-satisfaction in the different non-economic areas of household life such as food, housing, health and especially access to drinking water has decreased by more than 10 points over the 2016-2018 period. The proportions of households who are not satisfied in non-economic areas of life such as food, clothing, housing, health, and children's education are consistently lower among beneficiary households compared to the control group. The largest difference is in the area of household members' health, and is the smallest in the area of children's education. Nevertheless, with regard to access to drinking water, the difference is not statistically significant between the beneficiary group and the control group. This result stems from the fact that the issue of access to drinking water is more related to constraints concerning supply and availability of distribution networks at the community level than to constraints at the individual level of households.

Taking all into consideration, the happiness level of the heads of household targeted by the FIAVOTA program has increased slightly by 1 point since 2016 to reach 3 on a scale of 7 in 2018. By way of comparison, this is the level reached in 2012 for all households in the Anosy and Androy regions. The happiness level of the beneficiary households is 0.6 percentage point higher than that of control group households.

The population has a positive view of the effectiveness of program implementation

Overall, people are familiar with the FIAVOTA program and know where to access information. Nevertheless, there are some misunderstandings about eligibility, frequency of payment and origin of funds. Nearly half of the beneficiaries say they do not know when they will receive their next transfer. Understanding the regular frequency of transfers

could help households plan their future and manage their finances. **In general, beneficiaries have a positive experience in terms of receiving transfers within reasonable travel times and accessing low-cost payments. What is perhaps most telling is that 94 percent of respondents say they receive transfers with "no problem".** A beneficiary travels 35 minutes on average to receive transfers, although about 25 percent of the beneficiaries have to travel more than one hour. Reducing the travel time of those who have to travel more than one hour and especially those who have to travel more than two hours, could be a way to improve the program and thus increase its potential impact.

Recommendations to further optimize the impacts of the FIAVOTA program

Overall, the FIAVOTA program generates positive impacts in many important areas. This shows that the program is implemented fairly well in a difficult environment and that beneficiaries use transfers in a meaningful and successful manner. The recommendations would be mainly to: (i) continue cash transfers according to the plan; (ii) maintain the program's "livelihood recovery" component for future beneficiaries upon initial enrollment in the program, to provide a good start for building resilience; (ii) consolidate the various support measures and link the program to other services or interventions aimed at improving children's health and nutrition in order to take advantage of a multidimensional approach (access to safe water sources and adequate sanitation, appropriate practice for early childhood feeding and nutrition, access to immunization and childcare services).


AVOTA

1.

CHAPITRE 1. REMINDER ON THE FIAVOTA HUMAN DEVELOPMENT CASH TRANSFER PROGRAM

1.1. Objectives

1. **Launch of the FIAVOTA program in 2016:** To address the adverse effects of drought in 2016, chronic poverty and food insecurity in the South of the country, the Government of Madagascar collaborated with technical and financial partners to develop a social protection and nutrition project called "FIAVOTA" (meaning "rescue" in the local dialect of the South) for households in the most affected districts. This project is part of the National Social Protection Policy.

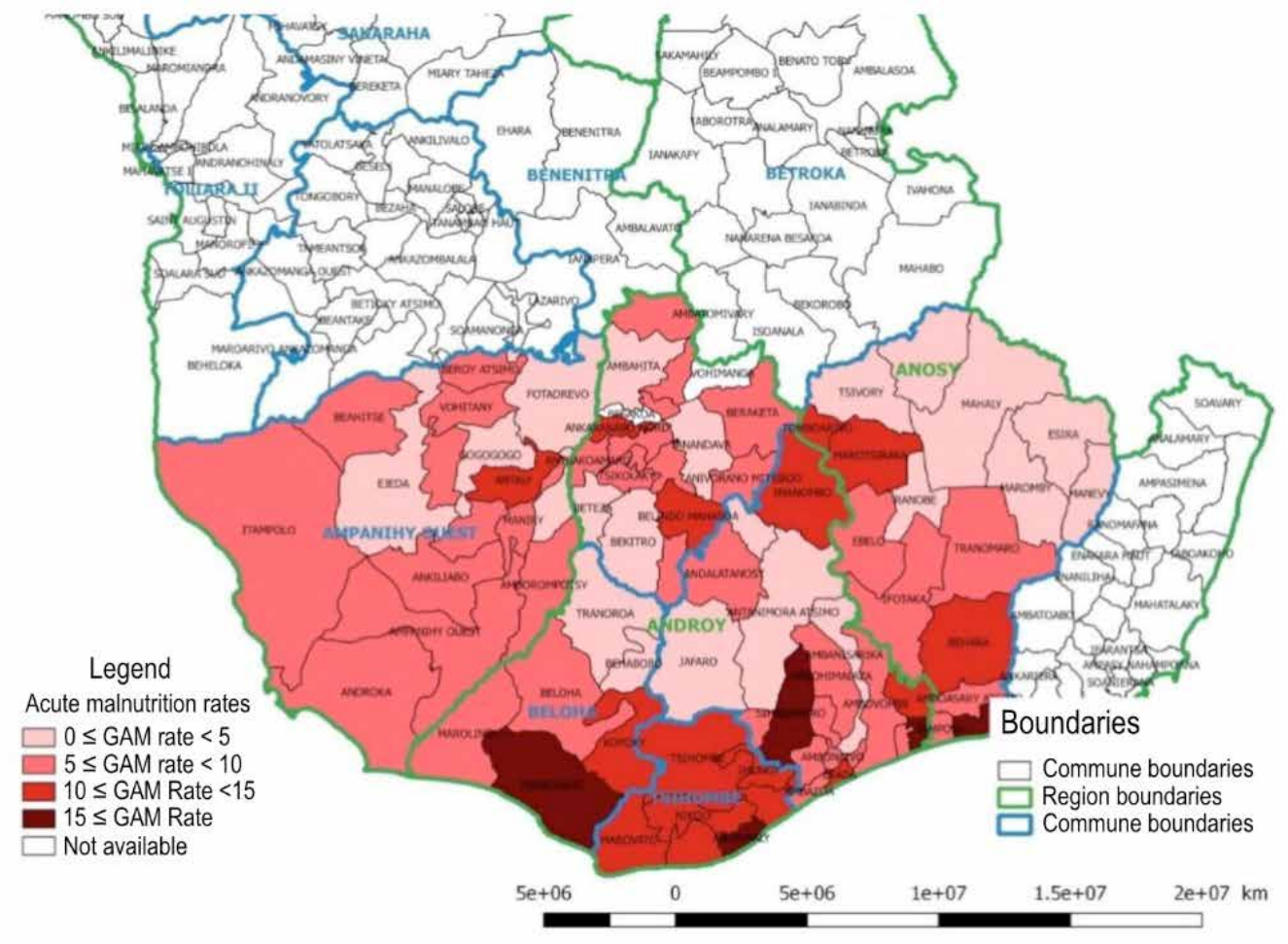
2. **The objectives of the FIAVOTA program revolve around three points:** improve the well-being of poor households in the short term; strengthen their resilience and revitalize their economic activities; and encourage families to invest more in human development through the education, health and nutrition of their children. In other words, in the short term, the objectives of the FIAVOTA program are to meet the basic consumption of poor households affected by drought by improving their basic consumption and meeting their immediate needs in areas such as food, health, nutrition and children's education. The aim is also to help them revive their economic activities fairly quickly. In the medium and long term, the program seeks to address the vulnerability and chronic poverty of households by strengthening income-generating activities and improving the beneficiary population's physical capacity, professional skills and health as well their children's nutrition and education.

1.2. Food difficulties in the intervention zone and its surroundings

3. **The beneficiary areas are the communes most affected by acute malnutrition.** According to the information available at the start of the program, while all the communes in the intervention area were affected by food problems, their extent is very uneven across the communes. Food difficulty is the most severe in the coastal areas of the Madagascar's Greater South (areas with dark colors). The communes with severe acute malnutrition (SAM) rates above 15 percent (urgent zones) and those with SAM rates between 10-15 percent (alert zones) are mainly located in the district of Tsihombe (Anjampaly, Nikoly, Marovato, Imongy), part of the district of Beloha (Tranovaho, Kopoky) and the district of Ambovombe (Sihanamaro, Erada, Sampona). On the other hand, the food situation changes considerably and is considered "good" in the communes located in the middle of the intervention zone: Tranoroa, Behabobo (district of Beloha), Jafaro, Antanimora Atsimo (district of Ambovombe), Beteza, Bekitro (district of Bekily). Food difficulty is moderate (SAM rate of less than 10 percent) in the communes in the eastern border (Tranomaro, Amboasary Atsimo) and in the western border (Marolinta, Beloha) of the intervention zone.

4. With regard to the communes surrounding the intervention zone, the food situation is quite similar with the situation in the bordering communes in the intervention zone. This is the case, in the West, in the communes of Androka, Ampanihy West, Ankiliabo, Amborompotsy, Maniry in the district of Ampanihy West district, and in the East, in the communes of Ankariera and Andranobory of in the Taolagnaro district which do not form part of the intervention area of the FIAVOTA program and are classified as "to be monitored".

Figure 1: Food difficulty in the intervention zone of FIAVOTA and its surroundings, based on the GAM rates



1.3. Products and beneficiaries

5. Products and services provided by the program include: cash transfers, community nutrition services support measures and livelihood recovery.

6. **The cash transfer component has of two phases:** During the first phase of the program, between January 2017 and March 2018, unconditional cash transfers (UCT) were granted to more than 55,000 households meeting the following criteria: have at least one child under 5 and be enrolled in a community nutrition site. For operational reasons, households were enrolled gradually, with the most affected areas prioritized.

7. The second phase of the program began in May 2018 when the unconditional transfers were replaced with Human Development Cash Transfers (HDCT). Conditions relating to the schooling of children started to be applied and monitored. To achieve the target of 65,000 households, new households were registered from April 2018. Today, the program has more than 70,000 beneficiary households.

8. **The program includes support for community nutrition services.** Activities include growth monitoring, behavioral change communication on reproduction, maternal and child health/ nutrition, education for diet diversification, including cooking demonstrations. Services also include screening and management for moderate malnutrition through lipid-based nutritional supplementation (Plumpy-Sup) for children. In addition, SAM cases were referred to health facilities for treatment. Community nutrition sites are under the responsibility of Community Nutrition Workers (ACN) who are also beneficiaries of the FIAVOTA program.

9. **Support measures are delivered by mother-leaders during "well-being spaces".** Beyond cash transfers, the program works to anchor human capital by addressing child health and education, nutritional counseling and social capital of the community. Support measures are support and awareness-raising actions aimed at changing behavior, improving living conditions and empowering program beneficiary households. Depending on the topics addressed, support measures are aimed at ensuring that households know how to manage transfers/allowances, have a survival project at the end of the program and that social cohesion is reinforced in each community. Support measures are delivered at the community level by mother-leaders who are beneficiaries elected by their peers[3] to be a link between the program and beneficiaries and thus convey key information about the program and accompanying measures. The time of sharing and following-up on the awareness-raising topics are called "well-being space".

10. **Livelihood recovery :** Livelihood recovery, amounting to MGA 180,000 (USD 53), is a monetary support intended to help recapitalize the households in recovering their livelihood activities and assets. This grants is paid in two tranches and are specifically meant to help targeted households rebuild their economic activities that were lost or depleted over the last years of drought. They also aim to prepare households to enter the recovery phase, resulting in increased resilience to shocks, including climate change (drought) and food insecurity. Before the payment of the livelihood recovery, beneficiary go through a phase where they identify and plan projects. To this end, they benefit from technical training related to the types of activities they chose and are supported during the implementation of their projects. This activity is implemented by NGOs in collaboration with mother-leaders and in partnership with the existing line ministries and rural development programs in the FIAVOTA program areas.

[3] There is one mother-leader for about 25 beneficiary households.

2.

CHAPITRE 2. MONITORING AND EVALUATION MECHANISM IN PLACE

2.1. Objectives

11. Monitoring and evaluation forms an integral part of a project or program and its main purpose is to inform decision-makers, policy-makers and donors on the program's expected effects (ex ante) or actual effects (ex post) in order to optimize resource allocation, improve the effectiveness and efficiency of interventions, and make decisions to abandon or to continue activities. It is not only a matter of measuring the impact through changes in indicators, but also understanding what are the economic, social and institutional mechanisms through which beneficiaries achieve changes.

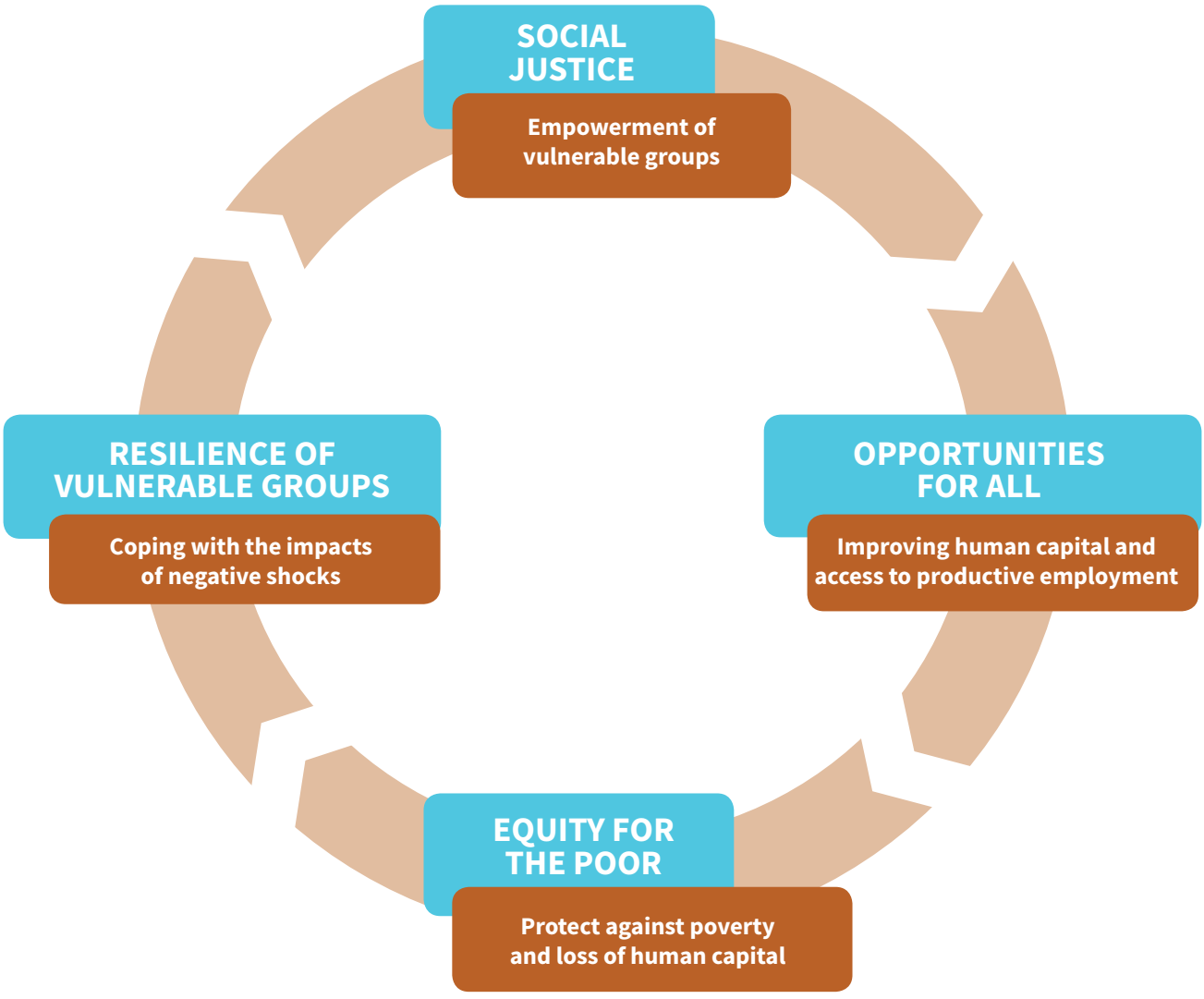
12. Under the FIAVOTA program, the mechanism put in place since the beginning of the operations was designed for an ex-post evaluation, providing for snapshots of real-life situations experienced by individuals and communities before, during and after the implementation of the program. The system not only allows for an impact assessment (or performance), but also for monitoring both the implementation of activities and the operational evaluation of the program (monitoring and evaluation or M&E). Thus, the mechanism made it possible to monitor the implementation and the progress of activities under the program through monitoring indicators (coverage with transfers, amount actually collected by households, etc.). It also provides for a global overview of the current situation and respective developments in situations relating to living conditions, as well as of the socio-economic and cultural environment of households suffering from food difficulties in the South in 2016. The mechanism also aims to measure as accurately as possible the impacts of the program at the individual level (children, women), at the household level, at the market level and at the community level.

13. One of the limitations of the 2018 mid-term survey is that the data collection period (April-May) was not the same as that of the 2016 baseline (December-January). Thus, the dynamic analysis of the indicators must take into account seasonality effects for some indicators that refer to a short period such as consumption scores, activity rate, incidence of diseases, etc.

2.2. Main working hypotheses for program impact

14. As with any social protection program, the program aims to mobilize individual or community potentialities to improve their resilience to the multiple factors of persistent poverty and household vulnerability that are exacerbated by food difficulties in the southern region of Madagascar. This is based on three main pillars. The first pillar entitled "More equity for the poor" aims to ensure a minimum level of consumption for poor households or those who have lost capital. The second pillar entitled "More resilience for the vulnerable" aims to prevent people who are sensitive to "shocks" from becoming more vulnerable. The third pillar entitled "Creating opportunities for all" is about improving individuals' ability to seize economic opportunities and to avoid the trap of poverty (by helping them to recapitalize their production units and invest in children's human capital). Apart from these three pillars, a fourth pillar entitled "Social justice" has emerged in recent years and aims to empower vulnerable groups such as women.

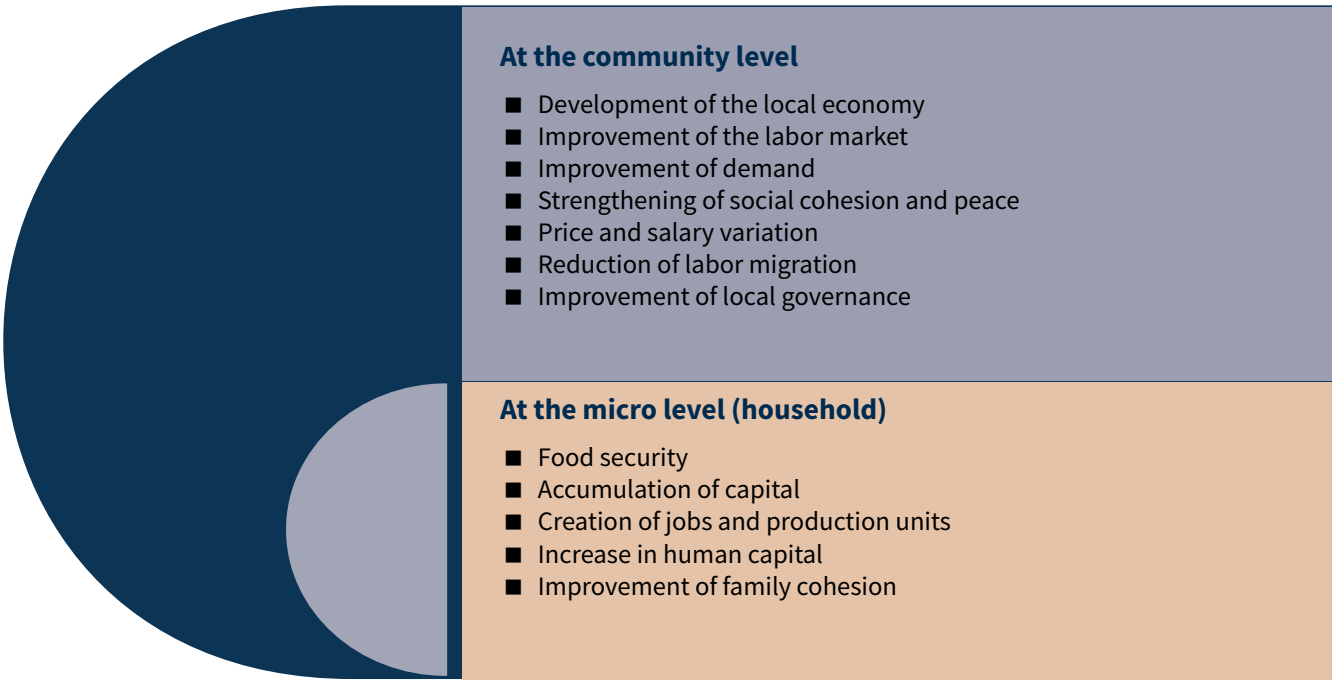
Figure 2: The pillars of a social protection project



Sources : MPPSPF - FID - ONN/UPNNC - World Bank, 2015

15. It is assumed that the effects or impacts expected from the cash transfers and nutrition interventions under the FIAVOTA program would occur at two levels: at the micro level (household) and at the community level. At the micro level, the FIAVOTA program can improve the living conditions of households by reducing poverty and inequality, improving consumption. The program can also improve household resilience and economic activities by increasing incomes, rebuilding household and productive assets, creating production units and strengthening economic activities, especially farming and livestock activities. Still at the micro level, the FIAVOTA program can contribute to human development and women empowerment by improving health status and nutrition, improving children's education, reducing child labor, and strengthening the position of women in the household. At the community level, the program contributes to protection against risks, improvement of the functioning of the labor market, promotion of growth, and consolidation of social capital and social cohesion.

Figure:3 Expected impacts and effects of the project



Sources : MPPSPF - FID - ONN/UPNNC - World Bank, 2015 - authors

2.3. Monitoring and evaluation methodology

16. The development of the monitoring and evaluation strategy is based essentially on the working hypotheses, the products delivered over time (UCT for the first year, switching to HDCT in the second year), the targeting method of beneficiary households (55,000 households in 2017 and additional households in 2017 and 2018), as well as the operation of the project. The conceptual framework involves three main elements: impact logical chain model to be analyzed, identification of analysis units or levels, specification of the types of impacts to be assessed with the indicators to be measured and the monitoring-evaluation measurement method.[4]

[4] Detailed method in annex

2.3.1. Impact logic chain

17. The logical framework on which the monitoring and evaluation system of the FIAVOTA program is based is summarized in Figure 4.

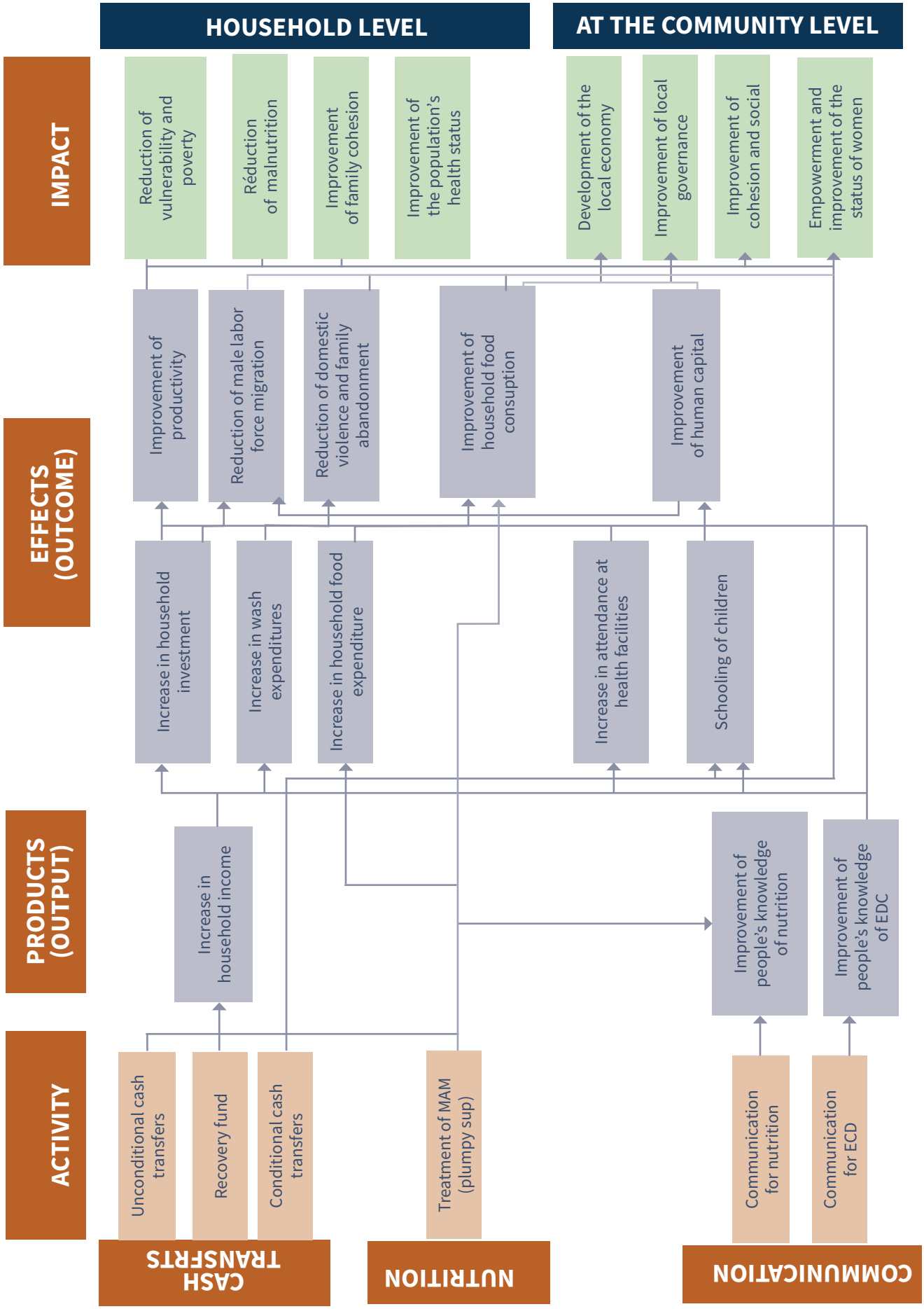


Figure 4 : Impact logic chain of the program

2.3.2. Indicators

18. Regarding indicators, two types are considered: impact indicators and monitoring-achievement indicators. They cover economic as well as social and behavioral aspects. The mechanism can capture the program's direct effects (such as income) and indirect effects (such as prices of products) (see Box 1). The analysis units are individuals (children, women, households), the market and communities.

Box 1: Indicators considered in the context of the study

Results indicators (monitoring of achievements):

- Transfer coverage rate; Amount actually collected; Frequency of transfers; Effective use of funds; Perception of beneficiaries on the program: knowledge, awareness, satisfaction, suggestion.

Impact indicators: economic impacts and social impacts

- ***Indicators on demographic characteristics:***
  - Age distribution, by sex; Household composition; Migration rate
- ***Housing indicators:***
  - Nature and condition of household housing; Household access to basic services (electricity, water, sanitation, etc.); Household's productive and home equipment
- ***Education indicators***
  - School attendance of children; Level of education; Reasons for not attending school or dropping out of school; Literacy rate
- ***Health indicators***
  - Incidence of major diseases in children; Attendance of health facilities; Reason for non-attendance of health facilities; Immunization rates among children; Deworming in children; Washing hands in children; Prenatal care for women aged 12 to 49; Immunization in women aged 12 to 49
- ***Nutrition and growth indicators***
  - Children's mid-upper arm circumference; Children's weight and height; Children's nutrition (quality, quantity, frequency); Feeding of women aged 12 to 49 (quality, quantity, frequency); Breastfeeding among women aged 12 to 49; Family planning practices among women aged 12 to 49
- ***Economic indicators***
  - Economic activities of household members; Household income (level, evolution, structure); Level of physical capital, assets, possessions, etc.
- ***Consumption indicators***
  - Consumption per household; Consumption per capita; Food Diversity Score (FDS); Food Consumption Score (FCS); Survival Strategy Index (SSI), Household Food Insecurity Access Scale (HFIAS)
- ***Poverty indicator***
  - Extreme or food poverty
- ***Perception of living conditions***
  - Subjective perception of standard of living; Level of confidence and self-esteem; Social inclusion; Membership in social groups; Status and role of women in the household
- ***Household socio-economic environment indicator***
  - Characteristics of schools; Characteristics of health facilities

2.3.3. Impact assessment method

19. To assess the impact of the FIAVOTA program, the propensity score matching (PSM) method was used. The propensity score matching (PSM) method consists of constructing the comparison group by matching each beneficiary unit one with one or a set of non-beneficiary units that has fairly similar propensity scores (i.e. likelihood to be a beneficiary of the program). Propensity scores are estimated using logistic-type econometric models of observed characteristics. When applying this method, the assumption is that the likelihood of being a beneficiary can be determined in large part by observable and available factors. In the case of FIAVOTA, several individual or community characteristics are available for both beneficiaries and non-beneficiaries in the survey questionnaires.

20. **Creating comparison groups:** The comparison groups include the following components:

    – Households with at least one child under 5 enrolled in nutrition sites in the communes bordering the FIAVOTA intervention zone: the communes of Androka, Ampanihy West, Ankiliabo, Amborompotsy, Maniry in the district of Ampanihy West, and the communes of Ankariera and Andranobory in the district of Taolagnaro;

    – Households with at least one child under 5 enrolled in nutrition sites not covered by the FIAVOTA program, but located in the intervention area;

    – Additional households from HDCT supplementation with at least one child aged 6-12 in the intervention zone;

    – Households with at least one child aged 6-12 enrolled in nutrition sites living in the communes bordering the FIAVOTA intervention zone mentioned above.

21. For the evaluation of the impacts of FIAVOTA's UCT first phase, only the first component of the comparison group was included in the analysis, as it is the most similar to the beneficiary group of this phase. The other components will be mobilized during the impact evaluation of the second phase of the HDCT program.

2.3.4. Size and structure of the sample

22. The sample size and structure of the 2018 survey are summarized as follows:

Table 1: Size and structure of the sample
Unit: Number

Categories of households	Households	Individuals	Children 0-5 years	Children 6-12 years
Beneficiaries (panel of the 2017 survey)	2,915	18,542	5,281	5,087
New beneficiaries	604	3,188	884	907
Non-beneficiaries with children under 5 years	2,381	14,665	4,959	3,793
Non-beneficiaries with children between 6 -12 years	630	3,411	310	1,397
TOTAL	6,530	39,806	11,434	11,184

Source: MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018


FAHAMARIHANA
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A TSARA IRIN' OLO

3.

CHAPITRE 3. DEMOGRAPHIC CHARACTERISTICS OF BENEFICIARIES AND THEIR HOUSING CONDITIONS

3.1. Summary

The population of beneficiary households is young with an average age of 16.8 years. The age pyramid has a broad base. Children under 5 account for one fourth of the total population. Two-thirds of the population is under 15 years old. As a result, the demographic dependency ratio is unsurprisingly fairly high at 167 percent. In addition, beneficiary households are characterized by a slight gender imbalance, with 96 men for 100 women. The male ratio is particularly low in the working age group of 26-39 and in young people aged 20-25.

The size of the beneficiary households is fairly large with 6 to 7 individuals. On average, beneficiary households have 2 children under 5 and 2 children aged 6 to 12.

More than 34 percent of the heads of beneficiary households are women. Nearly half of them have no education. They are most often self-employed in the agricultural sector. The characteristics of the control group households are generally identical, which contributes to the good quality of the evaluation of the FIAVOTA program's impact.

In the area of housing conditions in general, and in particular with regard to the lighting method, the use of the traditional oil lamp fell sharply, namely by 14 percentage points, between 2016 and 2018, with a shift to battery-powered lamps whose use increased from 59 percent to 80 percent. While this change is partly explained by the technological breakthrough that has facilitated access to this type of product, it should be noted that, in 2018, the proportion of beneficiary households using battery-powered lamps is higher compared to the control group. Similarly, beneficiary households' water supply habits changed slightly between 2016 and 2018, with access to protected boreholes/wells increasing by 3 percentage points.

3.2. Introduction

23. This section describes the sociodemographic characteristics of the population and households who are beneficiaries of the FIAVOTA program or form part of the control group. These characteristics may have an influence on the program's potential impact on the living conditions of households. Through the comparative analysis of the characteristics of beneficiary households and control group households, the quality of data and the quality of the impact assessment can be appraised. The closer the characteristics are, the better the quality of the evaluation.

24. The same concepts were used for the 2016 baseline survey and the 2018 mid-term survey. The definition of household used in the baseline survey was also adopted for this survey. Thus, a (ordinary) household is a set of related or unrelated persons:

- that recognize the authority of a same individual called "Head of household" who is the person in charge of the household;
- whose resources and expenses are shared;
- that most often live under one roof and/or in the same compound for six months or planning to stay there for at least six months or in the same compound.

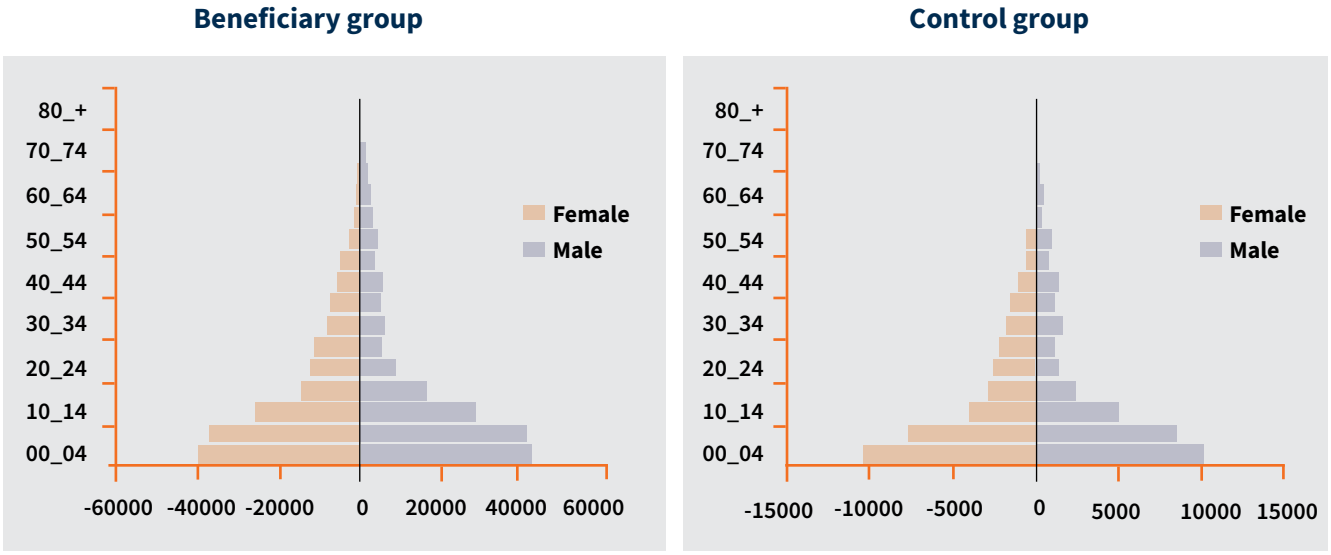
25. Household members are all individuals who have been living there for six months or who intend to live there for more than six months, whether present or absent at the time of the interview. Age is measured in years past. The sex ratio is the number of male individuals per hundred female individuals. The demographic dependency ratio is the number of dependent individuals (under 15 or over 64) to the number of working-age individuals (15-64).

3.3. Characteristics of the population

26. **The population of beneficiary households is young.** The average age is 16.8 years. The age pyramid has a very broad base. Children under 5 account for 23 percent of the total population, and 61 percent of the population is under 15 years of age. The FIAVOTA eligibility criteria of having at least one child under 5 account for these results. The population of the control group has more or less the same characteristics, except that it is relatively less young: the average age is 15.3 years, 28 percent are under 5 years, and 63 percent are under 15 years.

27. **The rate of demographic dependency among the beneficiary households is quite high** in the range of 167 percent, i.e. 100 individuals of working age (15-64 years) support more than 167 dependent individuals under 15 years or over 65 years old. The fairly high fertility rate among women in the Southern region, particularly in rural areas, account for this result. For the control group, the demographic dependency ratio is a little higher in the range of 181 percent.

Figure 5 : Age pyramids of the population of beneficiary households and control group



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

28. **The male ratio among beneficiary households is fairly low** at about 96.4 percent. The detailed analysis by age group based on the age pyramid shows large imbalances between the age groups of 20 to 39 years. The male ratios are below 66 percent and fall as low as 49.6 percent in the 25-29 age group. The same situation is observed among control group households.

Table 2 : Sociodemographic characteristics of the population of beneficiary households and control group households

Characteristics of the population	Average age (years)	Male ratio	Demographic dependency ratio
Total	16.5	96.6	169.3
GROUP			
Control	15.3	97.6	180.8
Beneficiaries	16.8	96.4	167.0
REGION			
Atsimo Andrefana	15.3	97.9	181.8
Androy	16.7	97.9	170.7
Anosy	17.1	89.2	150.0
SETTING			
District capital	16.7	100.3	157.3
Commune capital	16.7	94.2	160.5
Fokontany	16.5	96.9	172.2

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

3.4. Household characteristics

29. **The average size of beneficiary households is fairly large at 6.5 persons** compared to all households at the national level and compared to control group households (respectively 4.9 persons and 6.2 persons). Among beneficiary households, 59 percent have more than 6 individuals, and 14 percent have even more than 10 people. Control group households have about the same characteristics as beneficiary households: 56 percent have more than 6 people and more than 11 percent have more than 10 people.

Table 3 : Household size by group, region and place of residence

Household size	Average size (individuals)	2 individuals (%)	3-5 individuals (%)	6-9 individuals (%)	More than 10 individuals (%)	Total (%)
Total	6.4	3.0	38.3	45.6	13.1	100.0
GROUP						
Control	6.2	2.9	41.5	45.0	10.6	100.0
Beneficiaries	6.5	3.1	37.6	45.7	13.6	100.0
REGION						
Atsimo Andrefana	6.2	2.8	41.4	45.2	10.7	100.0
Androy	6.5	3.1	37.6	45.5	13.8	100.0
Anosy	6.4	3.0	38.0	46.5	12.4	100.0
SETTING						
District capital	6.8	0.0	36.4	48.8	14.8	100.0
Commune capital	6.6	3.5	36.4	47.0	13.1	100.0
Fokontany	6.4	3.1	38.8	45.1	13.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

30. Nearly six out of ten beneficiary households have at least two children under the age of five. Beneficiary households as well as control group households have an average of 1.8 children under 5 years of age. Nearly six out of ten beneficiary households have two or more children in this age group while 22 percent of households have 3 or more children. Households in the control group have slightly more children under 5: more than seven out of ten households have more than one child under 5, and more than 30 percent have more than three children.

Table 4 : Number of children under 5 in households

Number of children under 5 years per household	Average number (individuals)	One child (%)	Two children (%)	Three children (%)	More than three children (%)	Total (%)
Total	1.9	38.4	38.3	18.6	4.8	100.0
GROUP						
Control	2.1	28.0	42.0	23.1	6.9	100.0
Beneficiaries	1.8	40.6	37.5	17.6	4.4	100.0
REGION						
Atsimo Andrefana	2.1	27.8	42.0	23.3	6.9	100.0
Androy	1.8	40.5	37.2	17.9	4.5	100.0
Anosy	1.8	41.0	38.9	16.1	3.9	100.0
SETTING						
District capital	1.9	39.4	29.2	28.8	2.6	100.0
Commune capital	1.8	42.3	36.6	16.8	4.4	100.0
Fokontany	1.9	37.4	39.2	18.3	5.1	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline 2018-Baseline 2016 survey

31. **Similarly, nearly six out of ten beneficiary households have two or more children aged 6 to 12.** The average number of children in the 6-12 age group is 1.8 children among beneficiary households. More than 28 percent of these households have three or more children aged 6-12. Households in the control group have almost the same characteristics.

Table 5 : Number of children aged 6-12 in households

	Average number of children 6-12 years (individuals)	One child aged 6-12 (%)	Two children aged 6-12 (%)	Three children aged 6-12 (%)	More than three children aged 6-12 (%)	Total (%)
Total	1.8	44.2	27.7	18.2	9.9	100.0
GROUP						
Control	1.6	50.3	22.3	17.2	10.2	100.0
Beneficiaries	1.8	42.9	28.9	18.5	9.8	100.0
REGION						
Atsimo Andrefana	1.6	50.1	22.2	17.4	10.4	100.0
Androy	1.8	41.9	28.4	19.1	10.6	100.0
Anosy	1.6	47.7	31.3	15.2	5.8	100.0
SETTING						
District capital	1.9	42.8	24.4	20.7	12.2	100.0
Commune capital	1.8	40.1	30.8	19.9	9.1	100.0
Fokontany	1.7	45.2	27.3	17.7	9.9	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

32. There is a strong presence of women in beneficiary households. More than 34 percent of beneficiary households are headed by women. In addition, there are, on average, more than three women in a beneficiary household. The average age of heads of households is about 42 years old. Among control group households, the proportion of female-headed households is much lower (25 percent) and the average age of heads of households is 38 years.

Table 6 : Sociodemographic characteristics of heads of household

	Female-headed households (%)	Average age of head of household (years)	Number of women in the household (individuals)
TOTAL	***33.0***	***41.7***	***3.3***
GROUP			
Control	25.4	38.2	3.1
Beneficiaries	34.7	42.4	3.3
REGION			
Atsimo Andrefana	25.3	38.2	3.1
Androy	34.9	42.5	3.3
Anosy	33.8	42.0	3.4
SETTING			
District capital	26.1	41.2	3.4
Commune capital	36.4	41.6	3.4
Fokontany	32.7	41.7	3.2

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

33. **Based on the size of the household, the beneficiaries and control group households have more or less the same characteristics.** The distribution of households per size is characterized by the dominance of households with 4 to 6 persons at 41 percent among beneficiaries and 47 percent among the control group. Households of 7 to 10 individuals make up about one third of all households at 38 percent among beneficiaries and 35 percent in the control group. Nevertheless, it is found that extended households with more than 10 people represent a higher proportion among beneficiaries (8 percent) than in the control group (5 percent).

34. In addition, there are many more households with at least one member being a Community Nutrition Worker (CNW) among beneficiary households at 7 percent. This proportion does not exceed 2 percent among control group households.

35. **As regards the profile of the head of household, if one refers to sex, age, occupation and level of education, the last aspect constitutes the main difference between beneficiaries and the control group.** In fact, three in four control group households are headed by a person who has no education. This lack of education is only observed in 51 percent of beneficiary households. As for the other aspects of the head of household, the distribution is generally similar between beneficiaries and the control group: female heads of household account for almost one third of households; the largest part (around 40 percent) is aged between 30 and 40; and agriculture is the main activity although the proportion of heads of household involved is slightly higher among beneficiaries (69 percent) compared to the control group (57 percent).

Table 7 : Sociodemographic characteristics of households

Unit: %

Household characteristics	Beneficiary Group	Control Group
HOUSEHOLD SIZE		
1 to 3 individuals	13.0	12.0
4 to 6 individuals	41.5	47.3
7 to 10 individuals	37.6	35.2
More than 10 individuals	7.9	5.5
Total	100.0	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD		
Household with no ACN	93.0	98.7
Household with an ACN	7.0	1.3
Total	100.0	100.0
GENDER OF THE HEAD OF HOUSEHOLD		
Male	67.0	75.3
Female	33.0	24.7
Total	100.0	100.0
AGE OF THE HEAD OF HOUSEHOLD		
Under 30 years	20.5	26.2
30 to 44 years	39.4	43.8
45 to 59 years	25.5	21.3
60 years and over	14.7	8.7
Total	100.0	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	51.2	72.2
Primary	27.9	18.1
Secondary-university	20.9	9.7
Total	100.0	100.0
ACTIVITY OF THE HEAD OF HOUSEHOLD		
Inactive-unemployed	6.8	10.5
Agriculture	69.0	56.9
Industry	2.0	4.2
Trade	8.0	14.7
Administration	3.5	1.2
Other services	10.7	12.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

3.5. Housing characteristics

36. Housing characteristics are described through the household's frequently used lighting, water supply habits during the dry and rainy season, and the type of toilet used. Their improvement or degradation over time may reflect a change in the general living conditions of households.

37. **As for the lighting means, a significant change is observed among beneficiary households from 2016 to 2018.** Indeed, the use of traditional oil lamps dropped sharply, specifically by 14 percentage points, with households shifting to the battery-powered/Adaps lamp, whose use increased from 59 percent to 80 percent from 2016 to 2018. While this change is partly explained by the technological breakthrough that has facilitated access to this type of product, it is clear that the proportion of beneficiary households using battery-powered/Adaps lamps in 2018 is higher than in the control group (possession rate of 61 percent).

Table 8 : Distribution of households by lighting means

Unit: %

Lighting means	Beneficiary Group		Control Group
	Year 2016	Year 2018	Year 2018
Battery-powered, Adaps lamps	58.9	80.0	60.6
Traditional oil lamp	23.0	8.6	15.3
Fire place	13.7	3.6	21.4
Others: JIRAMA, solar panel, etc.	4.5	7.8	2.7
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

38. **Beneficiary households' water supply habits have changed slightly between 2016 and 2018.** Many more households are currently accessing protected boreholes/wells, at a rate of 15 percent, which constitutes an increase by 3 percentage points over the 2016 situation. But there is also an increase in supplying water from unprotected sources, whether in dry periods or during rainy periods. Access to drinking water is still a major challenge in Madagascar as evidenced by the situation of control group households, which does not differ much from that of beneficiary households.

Table 9 : Distribution of households by water supply method

Unit: %

	Beneficiary group				Control group	
	Year 2016		Year 2018		Year 2018	
	Dry season	Wet season	Dry season	Wet season	Dry season	Wet season
Private tap water	0.3	0.1	0.6	0.5	0.3	0.3
Public standpipe	5.4	3.2	4.7	4.8	2.8	1.8
Unprotected borehole/well	11.6	7.4	15.0	13.2	18.7	18.3
Protected borehole/well	43.8	21.1	39.7	29.4	46.8	45.2
Protected spring	0.8	0.4	0.9	0.7	0.1	0.2
Unprotected spring	7.7	5.2	16.1	15.0	6.8	5.4
Rainwater	0.2	34.7	0.0	14.8	0.1	2.5
Tanker	0.1	0.0	0.2	0.0	0.0	0.0
Water seller	14.2	4.2	15.4	3.5	5.4	1.1
Surface water (pond)	1.4	13.9	5.8	16.3	19.0	25.4
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

39. **The results so far reflect customs in the South of Madagascar as regards sanitation.** The behavior of beneficiary households seems to have deteriorated in 2018 compared to the 2016, as shown by a decrease of 3 percentage points in the use of latrine equipped with washable slab, and by an increase in the use of latrine without slab or an increase in the proportion of households without toilets. While one in two beneficiary households does not use a toilet in 2018, the situation is especially worrying for control group households with three out of four not using toilets.

Table 10 : Distribution of households by type of toilet used

Unit: %

Toilet type	Beneficiary group		Control group
	Year 2016	Year 2018	Year 2018
Self-ventilated improved latrines	0.3	0.9	0.2
Latrines with washable slab	6.0	2.7	1.6
Latrines with non-washable slab	32.6	22.1	10.2
Latrines without slab/open hole	21.6	26.4	9.7
Composting toilets	0.2	1.1	0.1
Hanging latrines	0.0	0.1	0.1
No toilet/In the open	39.3	46.7	78.2
Other types of toilet	0.1	0.0	0.0
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

3.6. Annexes

Table 11 : Distribution of the beneficiary population by age, gender and region in 2018

Unit: %

Age	Androy			Anosy			Overall		
	Gender			Gender			Gender		
	male	female	Overall	male	female	Overall	male	female	Overall
0_4	23.9	22.6	23.2	24.7	21.7	23.1	24.0	22.4	23.2
5_9	24.0	20.8	22.4	20.6	21.2	20.9	23.5	20.9	22.2
10_14	16.2	15.0	15.6	16.7	12.9	14.7	16.3	14.6	15.4
15_19	9.2	8.1	8.7	10.0	9.6	9.8	9.3	8.4	8.8
20_24	5.1	7.1	6.1	4.8	8.4	6.7	5.0	7.3	6.2
25_29	3.2	6.2	4.7	3.0	6.2	4.7	3.2	6.2	4.7
30_34	3.3	4.9	4.1	3.6	4.0	3.8	3.4	4.7	4.1
35_39	3.0	4.2	3.6	3.1	4.8	4.0	3.0	4.3	3.6
40_44	3.0	3.1	3.0	3.3	3.7	3.5	3.0	3.2	3.1
45_49	1.8	2.8	2.3	3.0	2.9	3.0	2.0	2.8	2.4
50_54	2.4	1.8	2.1	2.7	1.3	2.0	2.5	1.7	2.1
55_59	1.5	1.2	1.3	1.9	0.9	1.4	1.5	1.2	1.3
60_64	1.4	0.9	1.1	1.0	1.1	1.1	1.3	0.9	1.1
65_69	0.9	0.7	0.8	0.6	0.4	0.5	0.9	0.7	0.8
70_74	0.7	0.4	0.5	0.7	0.4	0.5	0.7	0.4	0.5
75_79	0.3	0.1	0.2	0.0	0.2	0.1	0.2	0.2	0.2
80_ +	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3
TOTAL	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

Table 12 : Distribution of the beneficiary population by age and region in 2018
Unit: %

Age	Androy	Anosy	Overall
0_4	23.2	23.1	23.2
5_9	22.4	20.9	22.2
10_14	15.6	14.7	15.4
15_19	8.7	9.8	8.8
20_24	6.1	6.7	6.2
25_29	4.7	4.7	4.7
30_34	4.1	3.8	4.1
35_39	3.6	4.0	3.6
40_44	3.0	3.5	3.1
45_49	2.3	3.0	2.4
50_54	2.1	2.0	2.1
55_59	1.3	1.4	1.3
60_64	1.1	1.1	1.1
65_69	0.8	0.5	0.8
70_74	0.5	0.5	0.5
75_79	0.2	0.1	0.2
80_ +	0.3	0.3	0.3
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/ FIAVOTA midline survey 2018, authors' calculations.

Table 13 : Status of employment of the beneficiary population by gender and region in 2018
Unit: %

	Androy		Anosy		Overall	
	Gender		Gender		Gender	
	male	female	male	female	male	female
Salaried	18.2	11.1	37.1	26.6	21.1	13.6
Self-employed	58.4	61.6	43.3	51.0	56.1	59.9
Family support	23.4	27.3	19.6	22.4	22.8	26.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

Table 14 : Employment status of the beneficiary population by region in 2016 and 2018

Unit: %

	Year 2018			Year 2016
	Androy	Anosy	Overall	
Salaried	14.6	31.6	17.3	14.2
Self-employed	60.0	47.3	58.0	39.5
Family support	25.4	21.1	24.7	46.3
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

Table 15 : Distribution of the beneficiary population according to households' socio-economic environment in 2016

Unit: %

	Distribution
LEVEL OF MALNUTRITION	
Urgent	22.2
Warning	37.4
Requires monitoring	40.4
SOCIAL PROTECTION	
Cash transfers	13.8
Food rations	46.8
Other support	2.6
No support	36.8
SETTING	
District capital	6.3
Commune capital	19.3
Fokontany	74.4
SOURCE OF DRINKING WATER	
JIRAMA	11.2
Tank-Dam	20.1
None	68.7

	Distribution
DISTANCE TO THE SITE	
Less than 15 minutes	64.4
15 min to 1 hour	24.5
More than an hour	11.1
NUMBER OF HEALTH FACILITIES	
No health facility	77.2
One health facility	18.4
2 health facilities	4.5
NUMBER OF PRIMARY SCHOOLS	
No school	17.0
One school	71.8
2 schools and more	11.2

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/ FIAVOTA Baseline 2016 survey, authors' calculations.

Table 16 : Distribution of control group population by age, gender and region in 2018

Unit: %

Age	Atsimo andrefana			Anosy			Overall		
	Gender			Gender			Gender		
	male	female	Overall	male	female	Overall	male	female	Overall
0_4	28.4	28.6	28.5	32.7	29.1	30.8	28.4	28.6	28.5
5_9	23.9	21.1	22.5	16.3	11.5	13.7	23.8	21.0	22.4
10_14	13.9	11.2	12.6	13.8	10.7	12.1	13.9	11.2	12.5
15_19	6.7	7.8	7.3	5.6	14.0	10.2	6.7	7.9	7.3
20_24	3.4	7.4	5.4	6.9	7.9	7.4	3.5	7.4	5.5
25_29	3.3	6.3	4.8	3.7	8.8	6.5	3.3	6.3	4.8
30_34	4.7	5.1	4.9	3.6	6.8	5.3	4.7	5.1	4.9
35_39	3.3	4.6	3.9	6.0	4.7	5.3	3.3	4.6	4.0
40_44	3.9	3.1	3.5	3.2	1.4	2.2	3.9	3.1	3.5
45_49	2.3	1.8	2.1	3.7	2.1	2.8	2.3	1.8	2.1
50_54	2.8	1.3	2.1	1.5	2.4	2.0	2.8	1.4	2.1
55_59	0.9	0.5	0.7	1.7	0.2	0.9	0.9	0.5	0.7
60_64	1.3	0.5	0.9	0.6	0.5	0.5	1.3	0.5	0.9
65_69	0.3	0.3	0.3	0.4	0.0	0.2	0.3	0.3	0.3
70_74	0.5	0.3	0.4	0.2	0.0	0.1	0.5	0.2	0.4
75_79	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1
80_ +	0.3	0.2	0.3	32.7	29.1	30.8	0.3	0.2	0.3
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

4.

CHAPITRE 4. POVERTY AND WELL-BEING OF HOUSEHOLDS

4.1. Summary

This section captures the impact of the FIAVOTA program on poverty and the well-being of households. The analysis is done in two stages: a dynamic analysis of impact indicators (gross impact of the program) and a net impact analysis using the propensity score matching. The situation can be summed up in one sentence: the FIAVOTA program has had a clearly positive impact on the well-being of beneficiary households. This is reflected by a lower level of the food poverty ratio and the subjective poverty ratio, as well as a fairly high level of income among the beneficiaries compared to the control group. Overall, the analysis allowed to identify only the direct and immediate effect of the amount of cash transfers paid to beneficiary households under the FIAVOTA program. The impact is fairly large for households of small size or with fewer children under 5. This is because cash transfers granted are fixed amounts that do not take into account household size or the number of children under 5. In terms of poverty ratios, the analysis also showed that the impact of the FIAVOTA program is significant in female-headed households.

The proportions of beneficiary households reporting "living in difficulty" or having used indebtedness are lower than in the control group. The proportions of households who not satisfied as regards non-economic aspects of life such as food, clothing, housing, health of members, children's education are lower among beneficiary households compared to control group households, except as regards access to drinking water where the difference is not statistically significant. Proportions of beneficiary households that have purchased home or productive equipment, or spent significant amounts on housing rehabilitation or family ceremonies in the last 12 months prior to the interview are consistently higher among beneficiary household households than among control group households. Finally, rates of membership in various types of associations, especially religious ones, are consistently higher among beneficiary households than among control group households. This only confirms the positive impact of the FIAVOTA program on the well-being and self-esteem of households in the South.

4.2. Introduction

40. In this section, the main objective is to capture the impact of the FIAVOTA program on the well-being of beneficiary households. The analysis uses both a subjective approach and an objective approach to capture the well-being of households. The main underlying idea is that well-being cannot be measured by income or consumption level alone. Moreover, the objective indicators, usually applied to analyze the living conditions of households, pose difficulties and can be tainted by fairly significant bias due to observation errors, given the critical situation experienced by the target households and their low level of education.

41. The analysis of the FIAVOTA program's impact on the well-being of households is of particular interest. First, well-being can result from the cumulative effects of living conditions and the economic and social environment experienced over a fairly long period of time. Second, cash transfers under the FIAVOTA project, which are time-bound, could have medium- or long-term effects on productivity and subjective well-being. Third, support could instill an individual sense of inclusion in society, which discourages withdrawal tendencies and improves collective well-being in society. Finally, in addition to the amounts granted, the organization and efficiency of the aid distribution system (equal treatment, absence of embezzlement or corruption) could have effects on well-being.

42. According to the results of the 2016 baseline survey, target households in the FIAVOTA program in the South are generally classified as "poor". They experience daily economic hardship and experience negative emotions or low levels of satisfaction in the non-economic areas of life. Subjective well-being or individual happiness that often results in self-esteem or optimism have positive effects on productivity or individual performance at work, on health status, and therefore on the economic and social living conditions of households. In contrast, low level of well-being or the feeling of being unhappy translates into self-withdrawal and pessimism that negatively influences risk appetite and investment (in physical or human capital) and leads to the poverty trap.

43. The 2018 midline survey provides objective analyzes of household income poverty, which makes up for the limitations of the subjective approach. Indeed, the interpretation of subjective well-being is quite sensitive for various reasons. A person may be happy despite poor health or a low level of educational achievement. In addition, people can also adapt psychologically to the social conditions they experience, and their subjective well-being can be high as they reduce their expectations and aspirations (attrition of preferences). In some cases, well-being indicators may vary significantly over time depending on economic, social, family or spiritual shocks. Finally, information on the household's subjective economic status is given by only one member of the household (the head) and, therefore, there is no possibility of identifying different perceptions from other household members who have other characteristics.

44. Apart from the economic aspect of households' living conditions, subjective measures of well-being provide important information on the quality of life. Well-being can be associated with many tangible or intangible, economic or non-economic aspects including good financial status, improved work productivity, good interpersonal relationships, resilience to adversity, good physical health, and long life expectancy, high intellectual level, harmonious family life, peaceful spiritual life, etc.

45. While subjective well-being may not be a complete indicator of well-being, it is surely important. Indeed, objective well-being indicators focus on external conditions while individuals react differently to the same external conditions according to their expectations, values and past experiences. A person can be "happy" while living in poor conditions under other aspects. However, the issue of someone who fares well objectively but feels less well subjectively should raise questions on the interest of well-being analyzes that uses only an objective approach. In contrast, the subjective approach takes into account individual circumstances in the short term, the groups of influence considered as reference, and current income. In addition to economic criteria, it takes into account non-economic, material and immaterial aspects, such as factors related to institutions, social values or beliefs, inequality, etc.

4.3. Context and methodology

46. The midline survey allows for capturing changes in and impact of the FIAVOTA program on household poverty and well-being through the objective and subjective approaches. The information from the survey allows for grasping the various facets and multidimensionality of poverty and well-being: food poverty, economic well-being and well-being in other non-economic areas of household life, intangible well-being or happiness.

47. The net impact of the FIAVOTA program on household well-being is assessed using the propensity score matching (PSM) method.

48. The impact indicators of the FIAVOTA program selected for assessing well-being fall into four broad categories: poverty indicators (food poverty ratio, level of household income declared, the subjective poverty ratio), well-being perception indicators (perception of economic well-being, perception of the monetary situation, level of individual happiness, non-satisfaction in various non-economic areas of life), comfort or investment indicators (proportion of households having purchased capital goods or productive assets in the last 12 months), social capital indicators (household membership with various types of associations and the feeling of marginalization of households in society).

49. To measure monetary poverty, two indicators are available: monetary poverty in the usual sense and food poverty or extreme poverty. The food poverty or extreme poverty indicator was selected for this analysis because one of the priority objectives of the FIAVOTA program is to ensure food security for vulnerable households and because the situation of the program beneficiary households is very precarious, even when it comes to food. In addition, the usual definition of poverty could not be applied for this analysis due to the lack of imputed rental calculation as the low number of tenants was insufficient to develop an imputation model.

- **Food poverty or extreme poverty:** the analysis unit is the individual. Food poverty is defined as the situation where an individual's aggregate food consumption is below the food threshold. This means that the individual does not even have the possibility to access the minimum food basket of 2,133 Kcal/day, or MGA 517,054 per person per year. This threshold is obtained by discounting the 2012 food threshold based on a basket of goods representative of the Malagasy's' feeding habits, using inflation rates in the province of Toliara, where the FIAVOTA intervention zone is located. Food consumption includes food expenditures (purchases on the market), self-consumption (household production that it consumes) and in-kind donations and transfers received by the household (including subsidies). Since the baseline survey did not capture the initial situation as regards food poverty, the analysis is limited to a description of the situation in 2018.

- **Intensity of food or extreme poverty:** The analysis unit is the individual. The intensity of food poverty corresponds to the gap in household food consumption relative to the food poverty line. It allows for assessing the level of effort required to bring the poor out of poverty. The lower the percentage gap, the less alarming the situation.

50. To measure subjective well-being, four types of indicators are used:

- **Subjective monetary poverty:** The analysis unit is the individual. Individuals are considered "subjective poor in terms of money income" when their income is below the subjective poverty line. To allow a better dynamic study of the situation, the subjective poverty threshold used is the discounted value of the threshold applied during the analysis of the 2016 baseline using the Toliara inflation rate between 2016 and 2018. Thus, for this analysis, the subjective poverty line is estimated at MGA 683,639 (USD 201) per capita per year. By way of comparison, in 2016, the national (objective) monetary poverty line was estimated at MGA 683,178[5] (USD 200). The subjective poverty line is calculated by using the method of intersecting the minimum income required for a suitable life and the income actually received by households (Goedhart et al., 1977, Gustafsson and Yue, 2006). To this end, two questions from the questionnaire are used: "According to your estimate, how much per month would your household need at least to

[5] Discounting of the poverty line in 2012, which was MGA 535 (USD 157) per capita per year, with inflation rates of 6.3 percent in 2013, 6.0 percent in 2014, 7.6 percent in 2015 and 6.7 percent in 2016.

lead a decent life?" "(Minimum Income Question - MIQ),"What is approximately your household's monthly income?" The method goes through the following steps: to obtain a continuous curve relating the required minimum income to the actual income received, a standard least squares regression model is estimated by taking the minimum income required for a suitable life as the dependent variable and as explanatory variables the income actually received (average approximation by income bracket), household characteristics (size, gender of the head of household, age and age squared of the head of household, household with an ACN, education level of head of household, quartile of wealth, the living setting, the average income at the district level). The income estimated by the model and the income actually received are divided by household size to obtain per capita amounts. The subjective poverty line is the amount where the minimum income requirement is equal to the income actually received by the household.

- **Level of subjective economic well-being:** The analysis unit is the individual. To measure the level of subjective economic well-being, the answers to the following question are taken into consideration: "Given the income of your household, do you believe that: 1. You live well, 2. Fairly well, 3. Fairly well but you have to be careful, 4. You live with difficulty." Households that answered "You live with difficulty" are considered "subjective poor in terms of economic well-being". This subjective question on poverty offers a number of advantages over the question of the economic scale used to identify subjective poverty in other studies. In fact, households are classified as poor according to their own assessment of their financial situation in relation to their individual preferences or aspirations without referring to a collective norm or to the situation of an average household as done for the monetary poverty line. The question does not ask respondents to know and refer to the economic status of other households.

- **Level of non-economic subjective well-being:** The analysis unit is the individual. Household satisfaction levels in some areas of daily life such as food, clothing and footwear, housing, health, children's education, access to drinking water, electricity and other infrastructure are used to measure the level of subjective non-economic well-being. They are assessed through the answers to the question: "Are you satisfied with how the needs of your household are met in the following areas? 1. Very satisfied, 2. Satisfied, 3. Not really satisfied, 4. Not at all satisfied, 5. Not concerned ". Households who answered "Not really satisfied" or "Not at all satisfied" are considered as "subjective poor in well-being" for the areas concerned. This indicator allows for analyzing the impact of the quality of society's functioning[6] on the well-being of the population. Indeed, though a household may feel "rich" in terms of economic well-being (relatively high income level), it might feel "poor" in non-economic areas because of supply or other malfunctions making it difficult to access certain products or services.

- **Happiness level:** The analysis unit is the individual. To measure well-being in all its dimensions or the level of happiness, the following question was asked: "If you take everything into consideration in your life, do you feel happy? on a scale of 1 to 7, ranging from "Very happy" to "Not at all happy".[7] The purpose of this question is to assess the impact of aid on the well-being of target households in all its dimensions. Indeed, in some cases, improving economic well-being (including increased incomes) does not necessarily lead to improved levels of individual happiness (Easterlin paradox). An ordered probit model is estimated to analyze the relationships between heads of households' happiness level as a dependent variable and the levels of satisfaction with the financial situation and the different areas of household life, perception of relative household poverty within the society, membership with various types associations (neighborhood, religious, professional, political, family, native, parents' associations at schools or management committee, others).

51. Changes in these well-being indicators are presented in sections 4.4 to 4.8. The net impact of the FIAVOTA program as assessed through the propensity score matching (PSM) method is developed in section 4.10.

[6] According to Sen's "capabilities" theory

[7] A variant of the question included in the General Social Survey (GSS) conducted in the USA in 1972 (National Opinion Research Center, 1999)

4.4. Food poverty

52. **Food poverty remains widespread in the FIAVOTA intervention zone. In 2018, it affects almost all beneficiaries of FIAVOTA**: more than 95 percent of this population group live in extreme poverty. In terms of incidence of food poverty, small disparities emerge according to household characteristics. The extreme poverty ratio still exceeds 90 percent for most household categories. The situation is almost identical across most household categories, except for some categories where the situation is comparatively less alarming: the extreme poverty ratio is lower among small households (1-3 persons) or households headed by a civil servant. Nevertheless, even for these categories of households, the food poverty rate is still very high at 84 percent for small households and 89 percent for households headed by a civil servant. This confirms the weight of local contexts and situations in which the population lives. This analysis does not yet take into account the gap relative to the extreme poverty line, which will be addressed in the following paragraphs.

53. **The intensity of poverty remains fairly high among households benefiting from the FIAVOTA program.** In 2018, the average gap of the population's actual consumption relative to the poverty line is 60 percent. In a simplistic way, an amount equivalent to this proportion in relation to the threshold would have to be distributed, exclusive of management fees or distribution costs, to achieve a situation where no beneficiary is any longer poor in 2018. The gap is fairly homogeneous across household categories. However, smaller gaps (less than 55 percent of the threshold) are noted for small households (1-3 persons), households headed by young people under 29 years of age or by a civil servant.

Table 17: Ratio and intensity of food poverty among beneficiary households in 2018
Unit: %

Poverty indicator	Ratio	Intensity
Overall	95.7	59.8
REGION		
Androy	95.6	59.4
Anosy	96.2	61.8
LEVEL OF MALNUTRITION		
Urgent	94.5	59.2
Warning	96.3	60.8
Requires monitoring	95.8	59.2
SOCIAL PROTECTION		
Cash transfers	94.7	57.4
Food rations	95.3	59.1
Other support	93.8	55.1
No support	96.6	61.8
Presence of ACN or AC in household		
Household with no ACN	95.9	60.2
Household with an ACN	93.0	55.0
HOUSEHOLD SIZE		
1 to 3 individuals	84.2	46.7
4 to 6 individuals	93.6	53.5
7 to 10 individuals	98.3	63.5
More than 10 individuals	99.4	70.8
AGE OF THE HEAD OF HOUSEHOLD		
Under 29 years	90.5	52.5
30 to 44 years	96.6	61.0
45 to 59 years	97.0	62.1
60 years and over	96.9	60.8
GENDER OF THE HEAD OF HOUSEHOLD		
Male	97.1	60.5
Female	91.6	57.6
Education level of the head of household		
No education	97.2	62.5
Primary	94.2	56.7
Secondary-University	92.9	55.3
ACTIVITY OF THE HEAD OF HOUSEHOLD		
Inactive-unemployed	96.4	60.5
Agriculture	95.5	59.1
Industry	97.3	61.9
Trade	99.5	66.4
Administration	88.8	54.1
Other services	95.3	60.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

4.5. Subjective poverty

54. **The incidence of subjective monetary poverty has remained stable among FIAVOTA beneficiaries between 2016 and 2018.** In 2018, almost all (98 percent) of the target population of the FIAVOTA program lives below the subjective monetary poverty line estimated at MGA 683,639 (USD 201) per capita per year. This result does not come as a surprise since the baseline situation of FIAVOTA's target households was very critical and the gap relative to be filled to lift the households out of poverty to a suitable life was very large. By way of comparison, in 2012, the objective monetary poverty ratio in the entire southern region of Madagascar was 86 percent. Generally, the subjective monetary poverty ratio is higher than the objective monetary poverty ratio because households tend to underestimate their actual income received and to overestimate the minimum income requirement (aspiration).

55. This situation is widespread, regardless of the region, the residence setting or the other characteristics of households. **On the other hand, a significant improvement should be noted as regards households with an ACN or those headed by a civil servant:** the subjective monetary poverty ratio tends to be lower in these groups. These results highlight the precariousness of jobs and the low profitability of economic activities in the private sector in this region of southern Madagascar.

Table 18: Changes in the subjective monetary poverty ratio between 2016 and 2018

Unit: %

Subjective monetary poverty ratio	Year 2016	Year 2018
Overall	98.5	98.4
REGION		
Androy	98.3	98.3
Anosy	99.7	99.0
LEVEL OF MALNUTRITION		
Urgent	99.7	98.7
Warning	98.9	98.1
Requires monitoring	97.5	98.6
SOCIAL PROTECTION		
Cash transfers	93.3	98.5
Food rations	99.3	98.6
Other support	98.9	92.3
No support	99.2	98.6
PRESENCE& OF ACN OR AC IN HOUSEHOLD		
Household with no ACN	98.5	98.7
Household with an ACN	97.7	95.4
TYPE OF HOUSEHOLD		
Male single parent	100.0	93.3
Female single parent	98.4	98.7
Extended or polygamous	98.4	99.6
Nuclear	98.5	98.3
HOUSEHOLD SIZE		
1 to 3 individuals	97.6	95.1
4 to 6 individuals	96.2	98.7
7 to 10 individuals	99.7	98.9
More than 10 individuals	100.0	98.4
NUMBER OF CHILDREN UNDER 5 YEARS		
1 child	97.5	96.7
2 children	98.3	99.3
3 children and more	99.7	99.0
Age of head of household		
Under 29 years	98.3	97.5
30 to 44 years	97.9	98.9
45 to 59 years	98.8	99.0
60 years and over	99.7	97.5

Subjective monetary poverty ratio	Year 2016	Year 2018
GENDER OF THE HEAD OF HOUSEHOLD		
Male	98.5	98.3
Female	98.5	98.8
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	99.2	99.7
Primary	98.3	98.1
Secondary-University	96.1	94.5
ACTIVITY OF THE HEAD OF HOUSEHOLD		
Inactive-Unemployed	98.4	98.9
Agriculture	99.0	98.7
Industry	100.0	99.6
Trade	95.0	100.0
Administration	89.7	83.3
Other services	96.7	97.7
RESIDENCE SETTING		
District capital	98.1	99.4
Commune capital	98.8	98.3
Fokontany	98.4	98.4
SOURCE OF DRINKING WATER		
JIRAMA	97.2	96.3
Tank Dam	99.0	99.6
Any	98.5	98.5
Distance to the site		
Less than 15 minutes	98.2	98.4
15 min to 1 hour	98.5	98.7
More than an hour	99.9	98.2
NUMBER OF HEALTH FACILITIES		
No health facility	98.7	98.9
One health facility	97.8	96.8
2 health facilities	97.3	98.4
NUMBER OF PRIMARY SCHOOLS		
No school	97.8	99.5
One school	98.9	98.6
2 schools and more	97.0	95.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.6. Changes in subjective well-being among the beneficiaries of FIAVOTA

56. The life of a household can be approached as a combination of many specific economic and non-economic areas and individual well-being or overall life satisfaction level can be analyzed as the aggregation of satisfaction levels as regards specific areas of a person's daily life. In other words, a person or group of people such as the household is much more than a consumer or economic agent: not only does it consume goods and services, but also "spends" part of its time and money on interpersonal relationship (with spouse, children, other family members, friends, neighbors, co-workers and work partners), on leisure and on other economic and non-economic activities. The information from the survey was used to assess the level of satisfaction of heads of households in economic (financial) and non-economic areas (food, clothing and footwear, housing, health, children's education, access to drinking water, electricity and other infrastructure). The purpose of this chapter is precisely to assess changes in the levels of satisfaction of households in these different areas of life taken separately and their respective influences on the level of overall satisfaction or level of happiness of households.

4.6.1. Perception of economic well-being

57. **A high level of income in absolute terms does not always translate into a high level of well-being or economic satisfaction.** This can be explained in several ways. According to the explanation based on relative situation, the faster the financial situation of the household considered as the reference increases compared to the household concerned, the lower the level of satisfaction of the head of the household concerned. The other explanation pertains to individuals' ability to adapt to positive and negative situations. Thus, if people have high coping ability, they can easily adapt to changes in their income, so that their level of satisfaction does not vary significantly with income. The level of satisfaction is also related to the rate of satisfaction in relation to all aspirations: the higher the satisfaction rate, the higher the level of happiness. In many cases, aspirations are not totally independent of the level of income: as income increases, desires increase. As a result, the subjective perception of the standard of living does not necessarily improve with income. Finally, the link between the level of economic well-being depends also on the individual, social or spiritual value given by people to "money".

58. **The subjective perception of economic well-being has improved significantly among FIAVOTA's beneficiary households.** While, at the beginning of FIAVOTA's intervention, the vast majority of households were dissatisfied with their financial situation, this proportion fell sharply. Taking into account individual preferences and eliminating the standard imposed by the single poverty line, over 57 percent of the population reported "living in difficulty" and are classified as "poor" in terms of subjective economic well-being. This proportion was more than 92 percent in 2016. The rate is 40 percentage points lower than the subjective monetary poverty ratio. This shows that benefiting from cash transfers provides psychological satisfaction to beneficiary households, even though the transfer has not yet lifted them out of poverty. Having experienced persistent poverty over a fairly long period, many households have already readjusted their aspirations (attrition of preferences). FIAVOTA cash transfers give hope to many beneficiaries, even if their income level has not yet exceeded the food poverty line.

59. **This positive change in the individual perception of economic well-being is observed across household categories.** However, it has strong links with the household situation in relation to social protection programs: in 2018, among households with an ACN, only 35 percent felt in difficulty whereas this proportion was 74 percent in 2016.

60. **Infrastructure significantly influences changes in the perception of household economic well-being.** The more schools there are, the more the proportion of households that feel they are living in difficulty decreases significantly, with a proportion of 47 percent of households living in localities with more than 2 primary schools. Results that show the importance of liquidity needs to access essential products and services in remote areas.

61. **Changes in the perception of economic well-being also depend on the head of household's level of education.** In 2018, only 46 percent of households, headed by an individual who completed secondary or university education, feel that they are in difficulty because of their financial situation, compared to 82 percent in 2016.

Table 19: Changes in the perception of economic well-being

Unit: %

Perception of economic well-being	Year 2016					Year 2018				
	You live well.	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total	You live well	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total
Overall	0.0	3.6	4.5	91.8	100.0	0.5	12.8	29.2	57.5	100.0
REGION										
Androy	0.0	3.9	4.6	91.5	100.0	0.4	12.1	31.0	56.5	100.0
Anosy	0.0	1.6	4.5	94.0	100.0	0.8	16.0	20.7	62.5	100.0
LEVEL OF MALNUTRITION										
Urgent	0.1	2.3	5.9	91.8	100.0	0.3	12.6	26.0	61.0	100.0
Warning	0.0	2.8	4.3	92.9	100.0	0.6	9.5	38.8	51.1	100.0
Requires monitoring	0.0	5.0	4.0	90.9	100.0	0.4	16.0	22.6	61.0	100.0
SOCIAL PROTECTION										
Cash transfers	0.1	3.4	7.8	88.8	100.0	0.5	12.1	30.0	57.4	100.0
Food rations	0.0	2.6	4.2	93.3	100.0	0.3	14.2	31.4	54.1	100.0
Other support	0.0	13.4	2.4	84.3	100.0	0.0	19.5	38.9	41.7	100.0
No help	0.0	4.4	4.0	91.7	100.0	0.7	11.0	25.7	62.6	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD										
Household with no ACN	0.0	2.4	4.3	93.3	100.0	0.5	11.6	28.6	59.3	100.0
Household with an ACN	0.2	18.4	7.2	74.2	100.0	0.0	28.3	36.7	35.0	100.0
TYPE OF HOUSEHOLD										
Male single parent	0.0	1.9	6.9	91.2	100.0	0.0	12.1	34.4	53.5	100.0
Female single parent	0.0	2.1	2.7	95.2	100.0	0.4	10.2	29.6	59.7	100.0
Extended or polygamous	0.0	5.7	4.8	89.6	100.0	0.3	12.8	23.5	63.4	100.0
Nuclear	0.0	4.0	5.3	90.7	100.0	0.5	14.1	29.8	55.6	100.0
HOUSEHOLD SIZE										
1 to 3 individuals	0.0	6.4	4.3	89.3	100.0	0.7	10.9	30.4	58.1	100.0
4 to 6 individuals	0.0	3.8	4.3	91.9	100.0	0.6	12.3	30.7	56.4	100.0
7 to 10 individuals	0.0	2.7	4.6	92.7	100.0	0.3	13.2	26.7	59.8	100.0
More than 10 individuals	0.0	1.5	6.0	92.5	100.0	0.0	16.4	30.0	53.6	100.0
NUMBER OF CHILDREN UNDER 5 YEARS										
1 child	0.0	6.6	5.0	88.4	100.0	0.4	11.8	31.3	56.5	100.0
2 children	0.0	2.3	4.2	93.5	100.0	0.6	12.6	28.9	57.9	100.0
3 children and more	0.0	1.5	4.4	94.1	100.0	0.2	15.1	26.2	58.5	100.0

Perception of economic well-being	Year 2016					Year 2018				
	You live well.	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total	You live well	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total
AGE OF THE HEAD OF HOUSEHOLD										
Under 29 years	0.0	4.1	4.8	91.2	100.0	1.0	12.7	29.8	56.5	100.0
30 to 44 years	0.0	4.7	4.7	90.6	100.0	0.3	14.1	31.0	54.6	100.0
45 to 59 years	0.1	2.2	4.4	93.4	100.0	0.2	11.4	25.9	62.5	100.0
60 years and over	0.0	2.1	4.1	93.7	100.0	0.4	12.1	29.1	58.5	100.0
GENDER OF THE HEAD OF HOUSEHOLD										
Male	0.0	4.2	5.3	90.5	100.0	0.5	13.8	29.0	56.7	100.0
Female	0.0	2.2	2.7	95.1	100.0	0.4	10.6	29.7	59.4	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD										
No education	0.0	1.6	3.4	95.0	100.0	0.4	10.1	26.8	62.7	100.0
Primary	0.0	3.7	5.5	90.8	100.0	0.7	17.5	27.8	54.1	100.0
Secondary-University	0.1	10.8	7.1	82.0	100.0	0.5	14.1	39.6	45.9	100.0
ACTIVITY OF THE HEAD OF HOUSEHOLD										
Inactive-unemployed	0.0	0.6	4.1	95.3	100.0	0.0	10.1	28.3	61.6	100.0
Agriculture	0.0	3.1	4.2	92.7	100.0	0.6	12.8	29.3	57.4	100.0
Industry	0.0	1.2	4.6	94.2	100.0	0.0	11.1	22.9	66.0	100.0
Trade	0.0	4.2	5.5	90.3	100.0	0.0	11.6	32.8	55.6	100.0
Administration	0.0	31.0	12.0	57.1	100.0	0.0	20.3	42.6	37.0	100.0
Other services	0.0	5.8	6.0	88.2	100.0	0.5	15.6	28.7	55.3	100.0
RESIDENCE SETTING										
District capital	0.0	4.0	1.9	94.0	100.0	0.0	22.7	32.7	44.6	100.0
Commune capital	0.0	4.7	5.8	89.5	100.0	0.5	7.0	24.2	68.3	100.0
Fokontany	0.0	3.3	4.5	92.2	100.0	0.5	13.8	30.5	55.3	100.0
SOURCE OF DRINKING WATER										
JIRAMA	0.0	5.1	6.7	88.3	100.0	0.0	13.1	32.2	54.7	100.0
Tank Dam	0.0	4.9	5.3	89.8	100.0	0.2	15.2	25.6	59.0	100.0
None	0.0	3.1	4.0	92.9	100.0	0.6	11.9	30.0	57.5	100.0
DISTANCE TO THE SITE										
Less than 15 minutes	0.0	4.6	5.0	90.3	100.0	0.5	13.9	25.6	60.0	100.0
15 min to 1 hour	0.0	2.1	3.9	94.0	100.0	0.6	11.4	35.9	52.2	100.0
More than one hour	0.0	1.3	3.3	95.4	100.0	0.0	9.2	37.5	53.3	100.0

Perception of economic well-being	Year 2016					Year 2018				
	You live well.	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total	You live well	You live fairly well.	You live fairly well but have to be careful	You live with difficulty	Total
NUMBER OF HEALTH FACILITIES										
No health facility	0.0	3.4	4.4	92.2	100.0	0.5	12.9	29.0	57.6	100.0
One health facility	0.0	3.0	4.1	92.9	100.0	0.3	12.3	32.6	54.9	100.0
2 health facilities	0.0	10.6	8.1	81.3	100.0	0.3	14.0	19.8	65.9	100.0
NUMBER OF PRIMARY SCHOOLS										
No school	0.1	5.3	2.6	92.1	100.0	0.3	12.5	27.7	59.5	100.0
One school	0.0	3.1	5.0	91.9	100.0	0.5	12.3	28.6	58.6	100.0
2 schools and more	0.0	4.0	5.1	91.0	100.0	0.6	16.5	35.1	47.7	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.6.2. Perception of the monetary situation

62. **As reported by the heads of beneficiary households, only two-thirds of households are still using external mechanisms to meet their basic needs. In 2018**, less than one in four households had to go into debt while this proportion exceeded 64 percent in 2016. Conversely, a much great proportion (26 percent in 2018 against 14 percent in 2016) can now draw on their cash reserves or their assets in case of difficulty. More than 30 percent of households (9 points more than in 2016) managed to achieve a balanced budget by reducing their daily expenses or by carrying out more profitable activities. Though the proportion is still very low in 2018, it should be noted that 2 percent of households reported having managed to make some savings, while none did in 2016.

63. **The changes in the situation are encouraging, especially as households living in the most remote places have seen their situation improving.** Among households living more than one hour away from a nutrition site, the proportion in debt has been reduced by more than half, from 67 percent in 2016 to 28 percent in 2018. The availability of infrastructures such as primary schools favors this trend.

Table 20: Changes in the financial situation of households

Unit: %

Financial situation of households	Year 2016						Year 2018					
	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total
Overall	0.0	0.2	21.5	13.7	64.6	100.0	0.1	2.1	30.5	26.5	40.8	100.0
REGION												
Androy	0.0	0.3	23.3	13.8	62.7	100.0	0.1	2.0	32.0	28.8	37.2	100.0
Anosy	0.0	0.1	9.3	13.1	77.5	100.0	0.1	2.8	23.6	15.9	57.6	100.0
LEVEL OF MALNUTRITION												
Urgent	0.1	0.1	20.5	13.9	65.4	100.0	0.2	1.5	31.7	24.2	42.4	100.0
Warning	0.0	0.2	22.6	15.9	61.3	100.0	0.1	2.2	27.1	36.3	34.4	100.0
Requires monitoring	0.0	0.3	21.0	11.6	67.1	100.0	0.0	2.5	32.7	19.1	45.6	100.0
SOCIAL PROTECTION												
Cash transfers	0.0	0.4	21.7	18.5	59.5	100.0	0.1	3.9	32.0	21.8	42.2	100.0
Food rations	0.0	0.1	21.0	13.0	65.9	100.0	0.0	2.0	32.4	28.9	36.8	100.0
Other support	0.0	0.0	24.7	18.8	56.5	100.0	0.0	6.8	42.9	14.3	36.0	100.0
No support	0.0	0.4	21.8	12.3	65.6	100.0	0.2	1.4	26.9	26.1	45.4	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD												
Household with no ACN	0.0	0.1	21.5	13.2	65.1	100.0	0.1	1.8	28.6	27.2	42.3	100.0
Household with an ACN	0.0	1.6	21.0	19.2	58.2	100.0	0.4	6.5	54.4	17.0	21.7	100.0
HOUSEHOLD COMPOSITION												
Male single parent	0.0	0.5	26.1	7.5	65.9	100.0	0.0	11.1	39.8	12.3	36.8	100.0
Female single parent	0.0	0.2	18.7	13.7	67.4	100.0	0.0	2.2	31.3	25.4	41.1	100.0
Extended or polygamous	0.0	0.4	21.3	16.8	61.5	100.0	0.3	0.5	25.2	28.3	45.7	100.0
Nuclear	0.0	0.2	22.7	13.3	63.8	100.0	0.1	2.1	30.6	27.2	40.0	100.0
HOUSEHOLD SIZE												
1 to 3 individuals	0.1	0.4	21.4	14.6	63.5	100.0	0.3	2.8	28.9	26.4	41.6	100.0
4 to 6 individuals	0.0	0.3	21.5	12.3	65.9	100.0	0.0	2.3	29.6	27.2	41.0	100.0
7 to 10 individuals	0.0	0.1	21.6	15.4	62.8	100.0	0.1	1.3	32.6	25.4	40.5	100.0
More than 10 individuals	0.0	0.0	21.0	11.5	67.5	100.0	0.0	3.4	29.2	27.4	40.0	100.0

Financial situation of households	Year 2016						Year 2018					
	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total
NUMBER OF CHILDREN UNDER 5 YEARS												
1 child	0.0	0.6	22.5	13.9	63.0	100.0	0.2	2.9	33.4	25.0	38.5	100.0
2 children	0.0	0.1	22.0	13.7	64.2	100.0	0.0	1.9	28.1	27.9	42.1	100.0
3 children and more	0.0	0.0	18.8	13.1	68.2	100.0	0.0	1.4	30.7	25.9	42.0	100.0
AGE OF THE HEAD OF HOUSEHOLD												
Under 29 years	0.1	0.5	24.1	12.8	62.6	100.0	0.0	3.3	29.6	25.5	41.6	100.0
30 to 44 years	0.0	0.3	19.9	12.6	67.2	100.0	0.1	1.9	32.6	25.0	40.3	100.0
45 to 59 years	0.0	0.0	20.2	14.9	64.9	100.0	0.1	1.6	30.7	26.4	41.3	100.0
60 years and over	0.0	0.0	23.4	16.2	60.3	100.0	0.0	1.6	26.1	32.3	40.0	100.0
GENDER OF THE HEAD OF HOUSEHOLD												
Male	0.0	0.3	22.6	13.7	63.5	100.0	0.1	2.1	30.1	26.9	40.8	100.0
Female	0.0	0.2	18.8	13.6	67.3	100.0	0.0	2.2	31.4	25.7	40.8	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD												
No education	0.0	0.0	21.2	12.7	66.1	100.0	0.1	1.1	27.8	25.9	45.1	100.0
Primary	0.0	0.4	22.4	15.8	61.5	100.0	0.1	2.7	33.7	27.0	36.5	100.0
Secondary-University	0.0	0.9	21.1	13.5	64.6	100.0	0.1	4.5	34.3	27.6	33.5	100.0
ACTIVITY OF THE HEAD OF HOUSEHOLD												
Inactive-Unemployed	0.0	0.0	18.1	18.5	63.4	100.0	0.0	1.4	32.2	29.5	36.8	100.0
Agriculture	0.0	0.1	22.6	14.0	63.3	100.0	0.1	1.9	30.0	28.4	39.6	100.0
Industry	0.0	0.4	6.8	8.6	84.3	100.0	0.0	4.2	20.3	12.4	63.1	100.0
Trade	0.0	2.3	17.9	14.1	65.7	100.0	0.0	1.8	33.7	21.1	43.3	100.0
Administration	0.0	3.6	32.8	14.2	49.4	100.0	0.0	1.7	57.4	18.8	22.2	100.0
Other services	0.0	0.0	19.8	8.5	71.7	100.0	0.0	4.0	31.4	19.9	44.7	100.0
RESIDENCE SETTING												
District capital	0.0	0.7	24.8	8.2	66.4	100.0	0.0	2.6	38.6	12.4	46.4	100.0
Commune capital	0.0	0.3	24.6	13.6	61.5	100.0	0.0	1.3	27.1	22.2	49.4	100.0
Fokontany	0.0	0.2	20.5	14.1	65.2	100.0	0.1	2.4	30.9	29.0	37.7	100.0
SOURCE OF DRINKING WATER												
JIRAMA	0.0	0.5	26.4	10.2	63.0	100.0	0.0	1.9	25.0	27.3	45.8	100.0
Tank Dam	0.0	0.1	26.1	10.2	63.6	100.0	0.1	1.9	31.1	22.3	44.6	100.0
Any	0.0	0.3	19.5	15.1	65.1	100.0	0.1	2.3	31.3	27.9	38.5	100.0

Financial situation of households	Year 2016						Year 2018					
	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total	You can save a lot of money	You can save some money	You have just enough	You have to draw on your cash reserves	You have to go into debt	Total
DISTANCE TO THE SITE												
Less than 15 minutes	0.0	0.3	24.5	13.3	62.0	100.0	0.1	1.7	28.5	26.0	43.6	100.0
15 min to 1 hour	0.0	0.2	17.6	12.3	69.9	100.0	0.0	3.6	29.6	28.4	38.4	100.0
More than an hour	0.1	0.0	13.8	18.8	67.3	100.0	0.0	1.6	44.8	25.3	28.3	100.0
NUMBER OF HEALTH FACILITIES												
No health facility	0.0	0.2	22.7	12.4	64.7	100.0	0.0	2.0	29.7	25.1	43.1	100.0
One health facility	0.0	0.4	14.1	19.6	65.9	100.0	0.1	2.5	30.9	33.6	32.9	100.0
2 health facilities	0.0	0.9	30.6	10.9	57.7	100.0	0.3	2.8	38.4	18.4	40.1	100.0
NUMBER OF PRIMARY SCHOOLS												
No school	0.1	0.1	22.2	9.4	68.2	100.0	0.0	2.6	22.9	21.7	52.9	100.0
School	0.0	0.2	21.6	13.8	64.5	100.0	0.1	1.9	31.4	26.5	40.1	100.0
2 schools and more	0.0	0.7	19.7	19.7	60.0	100.0	0.2	3.1	33.7	32.4	30.7	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.6.3. Level of satisfaction in non-economic areas of life

64. **Overall, though they remain fairly high, levels of non-satisfaction in the different non-economic areas of household life have decreased over the 2016-2018** period. Among the different areas of daily life considered, FIAVOTA target households report feeling much more satisfied as regards food, housing, health and especially access to drinking water. Between 2016 and 2018, the proportions of households who complain about these areas of life have decreased by more than 10 points: less than 10 points for food, 12 points for housing, 13 points for health and 40 points for access to drinking water.

65. **With regard to food, the improvement in perception is observed especially in District capitals (urban areas):** more than 26 percent of beneficiary households are satisfied with their situation in the area food between 2016 -2018. This situation is different from other categories of households. The same trend is observed among households headed by a civil servant. Despite this, the level of non-satisfaction remains high at more than 80 percent. As these results show, income constraints and insufficient production and supply, especially in very remote areas of the region, persist and are the main problems as regard food in the South.

66. **With regard to access to water, an issue that is specific to the South, in 2018, more than 48 percent of households (compared to 84 percent in 2016) are not satisfied.** This positive change is observed across all household categories. This situation may be due to factors affecting the entire area, including better rainfall compared to the food crisis period of 2016. These results confirm that issues relating to access to water are widespread in this region and are not so much due to demand constraints (low capacity of households to procure water), but rather to constraints as regards water supply (availability, control of distribution).

67. **For the social aspects, the situation was reversed between health and education. In 2018,** household satisfaction has become higher for health than for children's education: 84 percent of households say they are not satisfied with education (up 6 points from 2016), while the proportion is 76 percent for health. It should be mentioned that in the case of health, the changes in households' perception is closely linked to the level of urbanization rather than proximity of the supply of services. Households have become more demanding not only as regards proximity of health and education services, but also their quality and capacity.

Table 21: Changes in non-satisfaction in specific areas of life

Unit: %

	Year 2016							Year 2018						
	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education
Overall	98.0	97.9	92.4	89.5	87.3	80.3	79.9	88.2	90.9	80.0	75.8	48.4	77.5	84.7
REGION														
Androy	97.8	97.6	91.7	90.0	87.6	79.3	80.4	87.8	90.3	79.9	76.9	49.4	82.4	87.4
Anosy	99.4	99.5	97.0	86.1	85.2	87.3	75.9	90.3	94.0	80.3	70.4	43.8	54.6	72.1
LEVEL OF MALNUTRITION														
Urgent	98.4	98.2	94.1	85.9	89.1	80.4	74.0	86.1	90.3	80.3	74.7	38.7	89.6	86.0
Warning	97.8	98.2	93.7	90.0	88.6	83.8	82.1	93.3	94.3	86.1	80.7	61.9	83.0	90.4
Requires monitoring	98.0	97.4	90.4	91.1	85.1	77.2	81.2	84.9	88.3	74.3	72.1	42.6	64.5	78.8
SOCIAL PROTECTION														
Cash transfers	96.2	97.4	77.8	91.6	85.7	65.0	76.2	86.0	88.8	80.8	77.3	50.3	73.1	84.2
Food rations	99.1	98.8	95.1	88.7	89.8	83.3	80.7	87.0	90.3	80.9	75.2	48.3	81.7	87.2
Other support	96.7	95.7	88.7	80.7	88.8	77.8	82.5	89.3	87.5	74.3	68.0	59.0	73.6	75.0
No support	97.5	97.0	94.7	90.4	84.5	82.4	80.0	90.4	92.7	79.0	76.4	47.2	74.3	82.6
PRESENCE OF ACN OR AC IN HOUSEHOLD														
Household with no ACN	98.6	98.3	92.9	90.2	87.6	80.2	80.1	88.7	91.9	80.7	76.4	48.1	77.1	85.4
Household with an ACN	90.9	92.7	86.9	81.6	83.6	81.5	77.3	81.8	79.0	71.1	67.9	52.0	83.2	76.9
TYPE OF HOUSEHOLD														
Male single parent	100.0	97.9	92.6	93.6	91.0	77.1	82.7	90.9	92.6	81.7	72.7	33.1	86.1	72.2
Female single parent	99.1	98.4	93.9	92.5	87.4	82.3	84.3	88.6	91.3	80.9	79.5	52.1	80.6	86.2

	Year 2016							Year 2018						
	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education
Extended or polygamous	96.6	97.0	89.5	90.6	87.6	78.2	77.0	92.6	88.2	78.4	78.3	47.3	80.7	87.4
Nuclear	97.8	97.8	92.2	87.7	87.0	79.9	78.5	87.2	91.2	79.8	73.7	47.3	75.2	84.0
HOUSEHOLD SIZE														
1 to 3 individuals	96.7	96.9	92.0	89.3	86.9	80.3	81.6	86.0	87.8	78.9	76.3	37.6	77.6	83.6
4 to 6 individuals	97.8	97.2	90.2	88.8	87.1	79.9	78.0	88.6	90.7	77.6	75.6	44.0	75.1	83.1
7 to 10 individuals	98.6	98.7	94.4	90.2	87.1	80.8	79.8	88.7	91.9	82.5	74.2	54.8	79.3	87.5
More than 10 individuals	99.0	99.4	95.8	90.5	89.5	80.4	86.3	87.9	93.2	83.0	81.0	60.4	81.3	83.7
NUMBER OF CHILDREN UNDER 5 YEARS														
1 child	97.1	96.1	90.4	87.1	84.9	78.9	79.4	88.3	89.4	76.0	74.9	49.0	76.8	83.8
2 children	98.5	98.7	93.1	90.0	88.5	81.2	78.2	87.7	91.1	82.5	75.2	46.9	77.1	84.5
3 children and more	98.8	99.2	94.3	92.5	88.7	80.7	84.0	89.2	93.5	81.4	78.5	50.7	79.6	86.9
AGE OF THE HEAD OF HOUSEHOLD														
Under 29 years	97.4	97.8	93.7	89.3	87.5	77.8	78.9	88.3	89.8	81.5	74.2	40.9	76.0	85.0
30 to 44 years	98.0	97.8	90.2	88.8	85.9	80.6	79.1	86.5	91.9	76.9	72.1	49.9	77.3	85.0
45 to 59 years	98.8	98.6	94.9	90.7	87.8	81.9	81.5	89.4	90.6	83.9	77.6	53.5	78.7	83.3
60 years and over	97.8	96.9	91.8	89.9	90.1	81.4	80.6	90.3	91.0	79.0	85.0	49.1	78.5	86.1
GENDER OF THE HEAD OF HOUSEHOLD														
Male	97.6	97.7	91.8	88.3	87.1	79.5	78.1	87.9	90.7	79.5	74.1	46.9	76.1	84.1
Female	99.0	98.4	94.0	92.5	87.7	82.3	84.6	88.8	91.6	81.2	79.8	51.9	80.9	86.3

	Year 2016							Year 2018						
	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education
EDUCATION LEVEL OF THE HOUSEHOLD HEAD														
No education	99.2	99.2	94.1	90.2	89.8	81.5	81.1	90.8	93.5	83.5	77.1	47.3	79.4	85.8
Primary	98.2	98.6	91.3	91.1	84.5	80.2	77.9	84.7	89.6	78.2	76.0	49.0	74.9	83.3
Secondary-University	93.6	92.0	88.2	84.4	82.9	76.2	79.0	85.4	84.7	71.0	71.1	51.2	75.5	83.7
ACTIVITY OF THE HEAD OF HOUSEHOLD														
Inactive-Unemployed	99.7	100.0	96.6	93.9	88.3	87.1	90.8	88.0	91.8	75.4	82.9	45.5	76.8	86.3
Agriculture	98.5	98.4	92.7	89.7	87.4	80.4	78.7	88.7	91.3	81.9	77.4	49.2	79.1	85.9
Industry	99.6	100.0	95.3	84.2	90.4	76.2	76.5	96.9	95.7	79.1	62.5	50.7	66.5	80.0
Trade	94.9	92.8	85.3	94.5	84.0	71.5	82.1	89.5	94.7	77.5	76.9	46.4	72.7	84.9
Administration	87.2	85.5	70.2	76.4	82.3	67.6	77.8	76.4	79.2	69.6	73.9	58.2	93.9	85.6
Other services	95.7	95.2	92.7	87.2	86.5	82.1	82.8	82.6	85.7	72.7	64.0	43.6	70.7	77.2
RESIDENCE SETTING														
District capital	98.5	98.8	88.4	94.1	91.1	77.0	86.7	71.6	85.5	76.8	60.0	32.3	84.9	80.9
Commune capital	96.5	94.8	95.0	89.2	84.9	86.8	77.5	91.3	93.0	75.9	78.3	54.2	77.3	82.7
Fokontany	98.3	98.5	92.2	89.2	87.5	79.1	79.9	88.6	90.8	81.5	76.3	47.9	77.0	85.7
SOURCE OF DRINKING WATER														
JIRAMA	98.1	95.8	90.2	89.6	81.0	79.5	72.2	85.2	85.5	72.1	75.0	47.7	70.3	79.3
Tank-Dam	97.3	96.5	92.1	87.9	84.1	77.9	76.8	84.7	87.6	73.3	77.8	48.4	75.9	83.3

	Year 2016							Year 2018						
	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education	Food	Clothing and footwear	Housing	Health	Access to drinking water	Electricity or other infrastructures	Education
None	98.2	98.6	92.8	89.9	89.0	81.1	81.8	90.0	93.1	83.9	75.2	48.5	79.4	86.3
DISTANCE TO THE SITE														
Less than 15 minutes	97.5	97.2	92.1	88.8	84.8	79.4	78.9	86.8	89.8	76.7	76.0	46.8	75.4	83.8
15 min to 1 hour	99.2	99.2	93.7	92.0	92.6	82.4	81.2	89.1	92.1	85.4	74.4	53.4	77.7	84.4
More than an hour	98.6	98.6	91.6	88.0	89.2	81.0	83.1	95.2	95.4	88.9	77.3	47.8	90.4	91.3
NUMBER OF HEALTH FACILITIES														
No health facility	98.3	98.6	92.7	90.3	87.7	79.0	79.8	88.3	91.8	81.7	76.0	47.4	76.5	84.8
One health facility	98.7	97.9	91.9	88.4	87.6	83.8	81.4	86.7	88.1	76.9	73.5	48.4	79.1	83.6
2 health facilities	90.0	85.7	90.2	81.1	79.4	87.9	76.1	92.5	90.1	69.4	81.6	60.8	84.9	87.7
NUMBER OF PRIMARY SCHOOLS														
No school	97.9	98.6	90.9	89.2	94.4	73.7	79.1	86.9	92.7	83.4	72.7	50.0	80.8	80.4
School	98.2	97.9	93.9	89.7	85.9	82.7	79.7	88.6	91.3	79.7	76.7	47.7	77.4	85.7
2 schools and more	97.4	96.4	85.6	89.2	84.5	76.1	82.7	86.9	86.2	77.8	73.0	51.6	74.0	83.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.6.4. Level of individual happiness

68. **While the households targeted by the FIAVOTA program were deeply depressed at the beginning of the intervention, the situation has improved a lot by 2018**. Taking all into consideration, the happiness level of household heads targeted by the FIAVOTA program has increased slightly by 1 point since 2016 to reach 3 on a scale of 7 in 2018. By way of comparison, this is the level reached in 2012 for all households in the Anosy and Androy regions. The positive trend is consistent across households' socio-economic characteristics or geographic location, with the exception of households with an ACN who stand out with a fairly high happiness level at around 3.6 out of 7 in 2018.

69. To predict the effects of the various interventions on household well-being, the relationship between the level of happiness and levels of satisfaction in the specific economic or non-economic domains of household life should be analyzed. The analysis would also highlight the true aspirations of households and guide the actions to be taken. Admittedly, the level of individual happiness comprises only one dimension as it refers to the satisfaction of one individual with regard to his/her life. However, there are clearly multiple explanatory factors underlying this state of mind as individual happiness is dependent on many areas of life. These factors are not limited to economic aspects, but relate as well to non-economic, relational and even spiritual aspects in that sources of satisfaction go beyond income, consumption or production.

70. At the beginning of the intervention, the households were in total destitution and had no clear idea of what their aspirations were (attrition of preferences and loss of benchmark). The determinants of the level of happiness were few with relatively low levels of significance. Since then, the situation has changed and several factors have emerged to become more specific with regard to individual happiness. Thus, **in addition to economic well-being (income level), satisfaction with food, housing, children's education and infrastructure such as electricity have a positive and significant influence on the level of happiness of the heads of households**. On the other hand, clothing remains statistically insignificant. Moreover, inequality and the relative position of the household in society do not significantly affect the happiness of the household head beneficiary. This may be due to the perception that inequality between beneficiaries in particular has decreased, and within the entire community as a whole.

71. **Apart from these material and economic aspects, relational aspects or social capital is also a determinant**. While households relied much more on purely immaterial and non-economic aspects (religion and demographic origin) in the past, they currently place much more importance on economic aspects such as professional relations. Thus, financial support should be accompanied by other forms of networking initiative or small operators' cooperatives in the locality to optimize the expected effects.

Table 22: Changes in the determinants of heads of household's happiness level (ordered probit model)

Variables	Level of happiness	
	Year 2016	Year 2018
LEVEL OF SATISFACTION ON AREAS OF LIFE		
Economic well-being	0.30 ***	0.14 ***
Food	-0,07	0.00 ***
Clothing	0,02	0,00
Housing	0.10 *	0.00 ***
Health	0.11 **	0,00
Education	0.07 *	0.00 ***
Drinking water	0,05	0.00 ***
Electricity	0.08 **	0.00 ***
PERCEPTION OF THE RELATIVE SITUATION		
Relative financial situation	1.02 ***	0,95
Perception of exclusion		
Personal exclusion	-0,38	-0,20
Household exclusion	0,32	0,09
MEMBERSHIP IN ASSOCIATIONS		
Neighborhood	0,02	0,07
Religious	0.12 ***	0,04
Professional	0,02	0.2 ***
Political	0,05	0,11
Family	0,06	0,14
Native	0.13 ***	0,03
Students' parents/management committee	0,04	0,03
Other	-0,17	0,23
Cut1 _cons	4.01 ***	1.30 ***
Cut2 _cons	4.83 ***	2.40 ***
Cut3 _cons	5.71 ***	3.36 ***
r2_a	0,18	0,17
N	2636	1971

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.7. Level and structure of household income

72. **FIAVOTA cash transfers make a large contribution to the income of beneficiary households.** While more than eight out of ten beneficiary households earned less than MGA 50,000 (USD 15) per month in 2016, only 46 percent of households fall in this category in 2018. Currently, over 35 percent of beneficiaries earn between MGA 50,000 - 100,000 (USD 15 - USD 30) per month and 14 percent between MGA 100,000 - 200,000 (USD 30- USD 60) per month. This structure is about the same across categories of households considered.

Table 23: Changes in the level of household income

Unit: %

	Year 2016							Year 2018						
	Less than MGA 50,000	50,000 - 100,000	100,000 - 200,000	200,000 - 400,000	400,000 - 600,000	More than MGA 600,000	Total	Less than MGA 50,000	50,000 - 100,000	100,000 - 200,000	200,000 - 400,000	400,000 - 600,000	More than MGA 600,000	Total
Overall	**80**	**12**	**5**	**3**	**0**	**0**	**100**	**46**	**35**	**14**	**4**	**1**	**0**	**100**
REGION														
Androy	80	11	5	4	0	0	100	46	35	13	4	1	1	100
Anosy	77	16	5	1	0	0	100	45	31	18	4	1	0	100
LEVEL OF MALNUTRITION														
Urgent	87	8	5	1	0	0	100	49	39	9	3	0	0	100
Warning	85	9	3	2	0	0	100	47	36	11	5	1	1	100
Requires monitoring	71	16	6	6	0	0	100	44	31	19	5	2	0	100
SOCIAL PROTECTION														
Cash transfers	61	15	10	13	0	0	100	50	30	14	6	0	0	100
Food rations	85	10	4	1	0	0	100	46	36	12	3	1	1	100
Other support	56	21	5	15	0	3	100	29	26	25	5	15	0	100
No support	82	12	4	2	0	0	100	45	35	15	5	1	1	100
HOUSEHOLD SIZE														
1 to 3 individuals	83	10	5	2	0	1	100	56	30	8	4	2	0	100
4 to 6 individuals	79	11	5	5	0	0	100	49	32	15	2	1	0	100
7 to 10 individuals	80	12	5	3	0	0	100	39	41	12	6	1	1	100
More than 10 individuals	76	18	3	2	0	0	100	41	32	20	5	1	2	100
GENDER OF THE HEAD OF HOUSEHOLD														
Male	77	13	6	4	0	0	100	44	34	15	5	1	1	100
Female	87	8	3	2	0	0	100	51	36	10	3	0	0	100
AGE OF THE HEAD OF HOUSEHOLD														
Under 29 years	84	9	5	2	0	0	100	54	32	9	3	1	0	100
30 to 44 years	78	11	6	5	0	0	100	41	37	15	5	1	0	100

	Year 2016							Year 2018						
	Less than MGA 50,000	50,000 - 100,000	100,000 - 200,000	200,000 - 400,000	400,000 - 600,000	More than MGA 600,000	Total	Less than MGA 50,000	50,000 - 100,000	100,000 - 200,000	200,000 - 400,000	400,000 - 600,000	More than MGA 600,000	Total
45 to 59 years	75	16	5	4	0	0	100	44	34	15	5	1	1	100
60 years and over	84	11	3	3	0	0	100	47	35	15	1	1	1	100
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD														
No education	86	8	3	2	0	0	100	51	36	10	3	0	0	100
Primary	76	14	5	4	0	0	100	46	32	15	5	1	1	100
Secondary-University	62	19	11	7	1	0	100	28	35	24	8	4	1	100
RESIDENCE SETTING														
District capital	70	13	9	7	1	0	100	32	35	27	6	0	0	100
Commune capital	77	17	3	1	0	0	100	43	36	16	4	1	1	100
Fokontany	81	10	5	4	0	0	100	48	35	12	4	1	0	100

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

73. **After FIAVOTA's intervention, cash transfers become the main source of income of beneficiary households, as reported by more than eight out of ten households.** Income from agriculture is mentioned by only 34 percent of households and the income generated by non-agricultural family production units is reported by 39 percent of households. Household income sources vary across regions. In the Androy region, agriculture is the second source of income, as reported by 36 percent of households. On the other hand, in the Anosy region, non-agricultural production units rank second behind cash transfers.

74. **The contribution of wage income to the income of beneficiary households has significantly decreased**. While more than four out of ten households depended on the waged activities of their members as their main source of income in the past, they are less than 1 percent in 2018. This sharp decline in waged activity is observed across all categories of households.

Table 24 : Sources of income of FIAVOTA beneficiary households in 2018

Unit: %

	Waged income	Income from agriculture	Income from non-agricultural household self-employment	Inter-household transfers (family, friends, neighbors)	Transfers from other institutions (pensions, scholarships, etc.)	Cash transfers granted by programs or projects (cash transfer)	Non-cash transfers (in-kind, food)	Other sources of income
Overall	0.5	34.1	39.0	14.2	1.1	80.6	6.3	6.7
REGION								
Androy	0.4	36.5	36.8	15.5	0.6	80.6	5.9	6.4
Anosy	0.6	23.3	49.6	8.2	3.1	80.8	8.2	8.0
LEVEL OF MALNUTRITION								
Urgent	0.4	39.7	44.5	13.0	0.3	78.2	7.3	8.9
Warning	0.5	24.0	38.3	16.0	0.9	87.7	6.9	4.1
Requires monitoring	0.5	39.6	36.0	13.4	1.8	75.8	5.2	7.6
SOCIAL PROTECTION								
Cash transfers	0.4	43.3	35.4	13.1	0.4	80.1	6.1	6.5
rations	0.4	32.3	41.1	14.8	1.7	83.6	6.3	7.1
Other helpers	0.7	45.2	44.0	1.7	0.0	88.0	1.9	3.1
No help	0.5	32.3	37.5	14.7	0.7	76.8	6.7	6.4
ACN OR AC HOUSEHOLD								
Household with no ACN	0.4	33.7	38.7	14.3	1.1	80.8	6.4	6.8
Household with an ACN	0.8	39.8	42.5	13.2	0.6	78.5	5.4	5.6
TYPE OF HOUSEHOLD								
Male single parent	0.5	35.2	38.3	10.1	3.6	91.7	11.8	4.0
Female single parent	0.4	27.9	40.5	18.2	1.3	81.2	6.8	6.8
Extended or polygamous	0.5	36.7	37.6	24.4	0.8	83.7	6.2	2.2
Nuclear	0.5	36.7	38.6	10.8	0.9	79.5	5.9	7.4
HOUSEHOLD SIZE								
1 to 3 individuals	0.4	33.7	35.8	15.0	0.4	81.2	7.9	7.5
4 to 6 individuals	0.4	34.6	41.4	14.2	1.5	81.0	5.4	6.3
7 to 10 individuals	0.5	34.0	38.2	12.0	0.8	80.9	6.8	5.9
More than 10 individuals	0.5	33.2	36.4	20.9	1.4	77.2	6.5	9.8
NUMBER OF CHILDREN UNDER 5 YEARS								
1 child	0.5	35.3	36.9	13.4	1.3	79.3	5.9	7.0
2 children	0.4	33.0	39.7	14.7	0.9	79.8	6.1	6.2
3 children and more	0.5	34.6	41.2	14.4	1.1	84.9	7.6	7.3
AGE OF THE HEAD OF HOUSEHOLD								
Under 29 years	0.4	36.8	38.2	13.8	0.8	80.6	5.8	5.2
30 to 44 years	0.5	31.6	39.3	10.3	0.5	78.8	7.6	9.6
45 to 59 years	0.5	36.9	41.4	12.3	1.5	81.4	4.8	5.5
60 years and over	0.4	31.5	35.7	28.4	2.3	84.2	6.6	3.7

	Waged income	Income from agriculture	Income from non-agricultural household self-employment	Inter-household transfers (family, friends, neighbors)	Transfers from other institutions (pensions, scholarships, etc.)	Cash transfers granted by programs or projects (cash transfer)	Non-cash transfers (in-kind, food)	Other sources of income
GENDER OF THE HEAD OF HOUSEHOLD								
Male	0.5	36.8	38.4	12.4	0.8	80.5	6.2	6.7
Female	0.4	27.8	40.5	18.4	1.6	80.9	6.7	6.7
EDUCATION LEVEL OF THE HOUSEHOLD HEAD								
No education	0.4	35.3	37.8	14.8	0.8	81.3	6.2	6.5
Primary	0.5	33.2	43.8	13.7	0.9	82.5	6.6	6.0
Secondary-University	0.6	31.9	35.2	12.9	2.3	75.3	6.4	8.4
HEAD OF HOUSEHOLD ACTIVITY								
Inactive-Unemployed	0.4	22.7	31.6	29.6	3.3	76.6	6.8	8.5
Agriculture	0.4	39.6	38.7	13.1	0.7	81.1	7.0	6.3
Industry	0.6	16.4	39.3	23.6	3.3	80.7	0.9	6.9
Trade	0.4	24.5	47.7	9.1	0.0	82.7	4.7	12.8
Administration	0.8	28.3	33.1	15.7	5.1	83.6	0.0	1.5
Other services	0.8	15.7	44.0	8.5	0.9	79.0	4.7	5.7
RESIDENCE SETTING								
District capital	0.4	41.8	56.6	19.5	3.3	86.6	8.0	5.0
Commune capital	0.6	22.3	43.8	15.7	1.2	73.8	3.7	9.3
Fokontany	0.4	37.1	36.1	13.3	0.8	82.2	7.0	6.0
SOURCE OF DRINKING WATER								
JIRAMA	0.5	29.5	45.3	16.2	2.3	85.2	3.4	7.4
Tank Dam	0.5	35.5	43.2	12.4	0.8	76.8	6.5	6.8
Any	0.5	34.5	36.4	14.5	1.0	81.1	6.8	6.5
DISTANCE TO THE SITE								
Less than 15 minutes	0.5	38.2	39.0	13.1	1.0	82.4	6.5	5.6
15 min to 1 hour	0.5	26.1	39.6	15.3	1.8	82.1	5.9	6.8
More than an hour	0.4	25.7	37.6	18.8	0.2	66.4	6.5	13.0
NUMBER OF HEALTH FACILITIES								
No health facility	0.5	35.2	39.0	14.9	1.3	80.7	6.5	6.1
One health facility	0.5	33.9	41.6	12.9	0.0	88.1	6.3	5.9
2 health facilities	0.7	21.7	30.5	10.0	2.5	53.7	5.2	16.5
NUMBER OF PRIMARY SCHOOLS								
No school	0.4	32.6	39.4	18.5	0.1	85.7	6.0	5.0
School	0.5	34.5	39.1	14.0	1.3	79.3	6.1	7.2
2 schools and more	0.5	33.7	37.7	10.4	0.7	83.7	8.4	5.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.8. Ownership of capital goods or durable goods

75. **More and more beneficiary households own equipment or durable goods.** This concerns both home equipment and productive equipment.

76. With regard to home equipment, the proportion of households with a bed has increased by more than 10 points between 2016 and 2018 to reach an ownership rate of 78 percent in 2018. The increase is of 11 points for tables and 6 points for the chairs. In 2018, all beneficiary households own cooking pots if more than 2 percent did not in 2016. Households with an ACN and those headed by a civil servant always stand out compared with other household categories. For example, the rate of bed ownership is 95 percent for households with an ACN and 98 percent for households headed by a civil servant.

77. **The same trend is observed with respect to the percentage of households owning luxury goods.** The ownership rate of a radio doubled between 2016 and 2018 from 16 percent in 2018 against only 9 percent in 2016. For mobile phones, the ownership rate has increased from 16 percent in 2016 to more than 25 percent in 2018. On the other hand, the rate of ownership of jewelry (bracelets) has not changed over this same period (around 18 percent). This sheds light on how beneficiary households prioritize their expenditures.

78. **Finally, with regard to productive equipment, the rate of ownership has increased slightly,** with more than 4 points for carts and 3 points for plows. The rate remains virtually stable with respect to land ownership. The contribution of FIAVOTA cash transfers has not yet enabled households to make large investments.

Table 25: Changes in the rate of ownership of goods/equipment by households

Unit: %

Household assets	Year 2016													Year 2018											
	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone
Overall	67	78	98	97	87	44	18	28	18	9	2	2	16	78	87	100	99	90	55	23	12	19	16	3	4	25
REGION																										
Androy	68	78	99	96	88	45	18	27	19	9	2	2	16	80	88	100	99	92	55	21	11	20	15	3	5	26
Anosy	59	79	97	97	76	39	21	34	11	9	1	2	14	67	85	99	99	81	53	28	16	13	20	2	3	21
LEVEL OF MALNUTRITION																										
Urgent	67	79	97	96	88	38	12	24	16	6	0	1	10	77	91	99	99	95	45	16	6	16	10	0	1	19
Warning	64	77	99	98	86	46	17	29	15	6	2	2	14	76	87	99	99	90	60	20	12	18	12	2	4	21
Requires monitoring	69	78	99	96	86	45	23	29	22	12	3	4	21	79	86	100	100	87	56	29	16	21	23	5	7	32
SOCIAL PROTECTION																										
Cash transfer	70	83	99	99	92	50	26	30	27	10	2	1	18	79	92	100	99	95	58	24	14	22	13	1	2	23
Food rations	68	78	98	96	89	43	16	27	15	7	1	2	16	78	89	100	99	92	52	20	10	18	14	2	3	23
Other support	81	89	98	99	90	65	40	31	29	19	15	15	39	91	93	100	100	97	83	48	24	35	15	13	15	45
No support	63	75	98	96	81	41	17	27	17	10	2	3	13	76	84	99	99	87	55	23	13	17	19	3	6	27
HOUSEHOLD WITH OR WITHOUT AN ACN																										
Household with no ACN	65	77	98	96	86	41	15	27	16	7	1	2	12	76	87	100	99	90	52	19	12	17	15	2	3	21
Household with an ACN	88	84	99	99	93	80	59	33	38	24	11	12	57	95	87	100	100	96	86	69	12	35	29	12	16	72

Household assets	Year 2016													Year 2018											
	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone
TYPE OF HOUSEHOLD																										
Male single parent	64	77	99	94	86	45	13	40	18	11	4	4	17	84	84	100	100	98	46	20	15	13	8	14	15	9
Female single parent	57	71	97	96	76	36	17	29	12	2	1	1	10	73	85	99	98	81	50	21	12	17	7	2	3	18
Extended or polygamous	76	84	99	94	94	52	22	29	27	13	1	1	21	79	89	100	100	96	56	24	7	21	17	5	5	31
Nuclear	69	80	99	98	90	46	19	26	19	11	3	3	17	80	88	100	100	94	57	23	13	19	20	2	5	28
HOUSEHOLD SIZE																										
1 to 3 individuals	56	73	97	93	76	34	12	27	16	7	2	2	13	74	90	99	98	86	52	18	11	15	14	2	3	24
4 to 6 individuals	65	79	98	98	86	43	16	25	19	7	2	2	14	76	87	100	99	90	51	22	12	20	15	2	4	24
7 to 10 individuals	70	77	99	97	90	45	20	28	16	10	2	2	15	81	87	100	99	92	56	23	12	18	15	2	4	24
More than 10 individuals	77	81	99	96	92	59	33	38	21	14	5	6	29	77	86	100	100	92	68	29	12	23	21	6	8	35
NUMBER OF CHILDREN UNDER 5 YEARS																										
1 child	67	78	99	97	83	48	22	28	20	10	4	4	20	80	87	100	99	87	60	31	13	21	17	5	7	30
2 children	67	78	98	96	87	42	17	26	17	8	2	2	14	76	87	99	99	91	52	19	12	17	16	1	3	24
3 children and more	64	76	98	97	92	40	15	31	15	6	1	1	12	77	88	100	99	95	51	16	10	18	13	2	3	19
AGE OF THE HEAD OF HOUSEHOLD																										
Under 29 years	58	73	97	96	80	37	10	27	17	7	1	1	13	75	88	99	99	87	49	18	13	16	14	2	3	23
30 to 44 years	67	77	99	97	87	44	20	27	19	9	3	4	18	80	87	100	100	90	57	24	10	22	18	2	6	27

Household assets	Year 2016													Year 2018											
	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone
45 to 59 years	70	83	99	97	90	49	25	28	18	9	1	2	19	76	85	100	100	92	57	26	14	18	17	3	4	27
60 years and over	74	80	99	95	91	45	18	31	17	10	2	2	11	78	92	100	99	93	54	23	11	17	12	4	4	20
GENDER OF THE HEAD OF HOUSEHOLD																										
Male	70	81	99	97	91	47	19	27	20	11	3	3	18	80	88	100	100	94	56	23	12	19	19	3	5	28
Female	58	71	97	96	77	37	17	29	13	2	1	1	10	73	85	99	98	82	50	21	12	17	7	2	3	18
EDUCATION LEVEL OF THE HOUSEHOLD HEAD																										
Uneducated	64	78	98	96	88	37	10	24	15	6	0	1	8	73	89	99	99	94	47	12	11	15	12	0	1	15
Primary	66	77	98	96	86	45	20	31	19	8	2	2	16	77	85	100	99	88	56	25	11	19	14	1	4	27
Secondary-University	79	78	99	99	84	66	48	35	27	17	9	10	46	93	85	100	99	81	79	56	18	30	31	12	16	56
ACTIVITY OF THE HEAD OF HOUSEHOLD																										
Inactive/ Unemployed	61	71	97	90	63	34	12	25	11	4	1	1	6	70	91	98	98	82	51	20	10	17	6	2	4	18
Agriculture	66	79	99	97	92	42	15	26	18	8	1	2	14	77	89	100	99	95	50	17	10	19	15	2	3	22
Industry	67	72	100	90	78	35	21	40	12	9	1	1	12	76	91	100	100	82	69	31	16	11	17	4	4	27
Trade	71	72	98	98	70	56	39	37	27	6	2	3	18	82	76	100	98	74	65	34	17	21	11	0	2	28
Administration	96	86	99	98	89	88	69	21	48	38	19	19	79	98	85	100	100	87	92	81	20	49	40	7	24	77
Other services	70	74	98	97	65	56	35	39	14	12	6	7	30	83	77	100	100	71	76	50	22	20	29	9	14	41
RESIDENCE SETTING																										
Region	78	79	99	91	76	47	29	33	15	18	3	2	23	87	86	100	99	82	48	35	22	20	36	4	7	39
District	57	74	99	99	75	48	24	35	14	10	4	4	21	73	83	99	99	76	64	32	15	18	22	7	9	31

Household assets	Year 2016													Year 2018											
	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone	Bed	Mat	Cooking pots	Bucket/Jerrycan	Spade	Table	Chair	Oil lamp	Bracelets	Radio	CD drive	Television	Cellphone
Other communes	68	79	98	97	90	42	16	26	19	7	2	2	14	78	89	100	99	95	52	19	10	19	12	1	3	22
SOURCE OF DRINKING WATER																										
JIRAMA	68	76	99	99	71	54	32	34	19	15	5	7	24	77	81	99	99	70	68	37	21	17	20	7	10	36
Tank Dam	68	76	99	97	87	42	21	28	21	9	5	5	17	77	85	99	99	90	49	25	14	21	18	3	7	24
No	66	79	98	96	89	43	16	27	17	8	1	1	14	78	89	100	100	94	54	19	10	18	14	1	2	23
DISTANCE TO THE SITE																										
Less than 15 minutes	68	79	99	97	87	45	21	28	20	10	3	3	18	77	87	99	99	89	53	24	13	20	16	3	5	26
15 min to 1 hour	63	75	98	96	84	41	15	27	13	8	1	1	14	77	86	100	99	92	57	22	10	18	17	1	3	23
More than an hour	65	80	97	97	91	45	12	28	17	5	0	0	9	80	93	100	99	96	57	14	6	15	9	0	2	22
NUMBER OF HEALTH FACILITIES																										
No health facility	66	79	98	96	87	42	16	28	18	8	1	2	14	75	88	100	99	90	51	20	13	17	15	2	3	24
One health facility	69	76	99	97	85	48	22	31	16	9	3	4	20	84	86	99	99	91	60	24	10	22	16	4	5	27
2 health centers and more	77	67	99	98	83	65	42	16	29	8	11	11	31	83	85	100	100	85	75	51	9	27	28	12	17	34
NUMBER OF PRIMARY SCHOOLS																										
No school	65	81	97	94	89	37	15	24	17	9	2	2	13	72	88	99	99	90	49	21	11	17	14	1	3	22
School	66	77	99	97	86	44	17	28	18	9	2	2	16	77	87	100	99	90	54	21	11	18	15	2	4	24
2 schools and more	75	76	99	96	84	56	33	33	21	8	5	6	21	89	87	100	100	89	68	34	17	24	20	7	8	33

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.9. Households' social capital and integration in society

79. An individual's "social capital" refers to the network of personal relationships that he/she can mobilize when he/she needs it. It differs from economic capital and cultural capital, which refers respectively to wealth and income, and to the level of education. In the case of program beneficiary households, social capital is assessed according to their membership in one or more groups existing in society, including the fokontany. In addition, the assessment makes a distinction between an active member and a simple member whose status has an impact on the intensity of the relationship or integration.

80. **Results show that the social capital of beneficiary households has widened over the 2016-2018 period.** However, the type of household associations is limited to parents' associations, followed by religious associations, neighborhood associations and professional associations. Associations in which households build fewer personal relationships are political associations and associations relating to ethnic origin. Integration with other types of associations such as the neighborhood association marks the household's commitment to the development of the locality in which it resides.

81. **In the Androy region, more than half of beneficiary households have a member belonging to a parents' association, compared to only 37 percent in 2016.** This increase has been favored by children's enrollment at school. In the same region, beneficiary households' membership in neighborhood, religious or professional associations has increased by 17 percent, 21 percent and 13 percent respectively. In the case of the Anosy region, membership of beneficiary households in religious associations has developed fairly rapidly. In 2018, more than 73 percent have become members of this type of association compared to just under 31 percent in 2016. As in Androy, in the Anosy region, the membership rate increases by 10 percentage points for parents' associations, 12 points for professional associations and 17 points for neighborhood associations.

Table 26: Changes in membership of a household member in an association

Unit: %

	Year 2016								Year 2018							
	Androy Region				Anosy Region				Androy Region				Anosy Region			
Membership of a household member with an association	Yes, active member	Yes, simple member	No	Total	Yes, active member	Yes, simple member	No	Total	Yes, active member	Yes, simple member	No	Total	Yes, active member	Yes, simple member	No	Total
Neighborhood association	7	13	80	100	11	11	78	100	4	19	77	100	8	31	61	100
Religious association	10	12	78	100	12	19	69	100	8	34	57	100	8	65	27	100
Professional association	6	8	86	100	5	10	85	100	4	23	73	100	5	22	73	100
Political association	1	1	98	100	0	0	100	100	0	2	98	100	0	1	99	100
Family association	2	2	96	100	0	0	100	100	0	5	95	100	1	6	93	100
Ethnic association	1	2	97	100	0	0	100	100	1	4	96	100	1	6	93	100
Parents' Association/ Committees	15	22	63	100	10	30	60	100	3	48	50	100	1	48	50	100
Other association	2	5	93	100	2	3	95	100	0	1	99	100	0	1	99	100

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

82. Non-inclusion into any existing association in society can create feelings of marginalization in households and can lead to stigmatization. This risk can be assessed through the proportion of households and one of their members that feel marginalized in society.

83. In this regard, **feeling of marginalization has clearly seen no major change between 2016 and 2018 and remains very low** (around 7 percent of households) among beneficiaries, thus showing social cohesion in this FIAVOTA intervention region. On the other hand, the situation is particular in urban areas where the proportion of households that feel marginalized is doubled compared to rural areas. Cohesion is indeed less strong in a much larger city and households are much more heterogeneous. Similarly, in areas classified as "urgent", the proportion is fairly high.

84. **When considering the head of the household's profile, the feeling of marginalization is much more apparent in households headed by a younger person.** In the case of the Androy region, 7 percent of households headed by people under 29 feel marginalized in society; and in the Anosy region, this proportion is 13 percent.

Table 27: Feelings of marginalization among respondents and households according to household profile

Unit: %

	Year 2016				Year 2018			
	ANDROY		ANOSY		ANDROY		ANOSY	
Feeling of marginalization	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household
Overall	6	6	5	4	3	3	7	4
SETTING								
District capital	14	13			1	1		
Commune capital	3	3	1	1	3	3	8	6
Fokontany	6	6	7	6	3	3	7	3
HOUSEHOLD WITH AN ACN								
Household with no ACN	6	6	5	4	3	2	7	4
Household with an ACN	5	5	9	6	6	6	8	8
TYPE OF HOUSEHOLD								
Male single parent	9	9	7	7	1	1	0	0
Female single parent	7	7	5	5	4	3	8	2
Extended or polygamous	5	5	3	3	6	6	9	4
Nuclear	6	6	5	4	3	2	7	5
MALNUTRITION								
Urgent	7	7	11	10	2	2	10	6
Warning	3	3	7	7	4	3	4	3
Requires monitoring	8	9	2	2	3	3	8	4
SOCIAL PROTECTION								
Cash transfer	5	6	4	3	2	2	6	2
Food rations	7	6	9	8	3	3	8	2
Other support	5	9	0	0	0	0	0	0
No support	6	5	3	3	4	3	7	5
GENDER OF THE HEAD OF HOUSEHOLD								
Male	6	6	5	4	3	3	7	5
Female	7	7	5	5	4	3	8	2
AGE OF THE HEAD OF HOUSEHOLD								
Under 29 years	7	7	6	6	4	4	13	6
30 to 44 years	5	5	4	3	3	2	7	4
45 to 59 years	6	6	7	6	3	2	3	3
60 years and over	8	7	1	0	4	4	6	2

Feeling of marginalization	Year 2016				Year 2018			
	ANDROY		ANOSY		ANDROY		ANOSY	
	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household	Feeling of marginalization of the respondent	Feeling of marginalization of the household
EDUCATION LEVEL OF THE HOUSEHOLD HEAD								
No education	6	6	5	4	2	2	7	5
Primary	7	6	6	5	3	3	6	2
Secondary-University	5	4	4	3	6	6	9	5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

4.10. Net impact of the FIAVOTA program on household well-being

85. The impact of the FIAVOTA program on the well-being of the beneficiary households is captured by the positive differences in the different outcome indicators between beneficiary households and the control group households matched according to the propensity score. This section provides an estimate of these differences according to the indicators considered.

86. Indicators of well-being can be categorized into four broad categories: poverty indicators (food poverty ratio, household's reported income level, subjective poverty ratio), perceived well-being indicators (positive perception of economic well-being, perception of monetary status, level of individual happiness, non-satisfaction in various non-economic areas of life), comfort or investment indicators (proportion of households purchasing equipment or productive assets over the last 12 months), and indicators of social capital (membership of households to different types of association and finally feeling of marginalization within society). Overall, the FIAVOTA program has had positive and significant impacts on the various indicators of well-being considered.

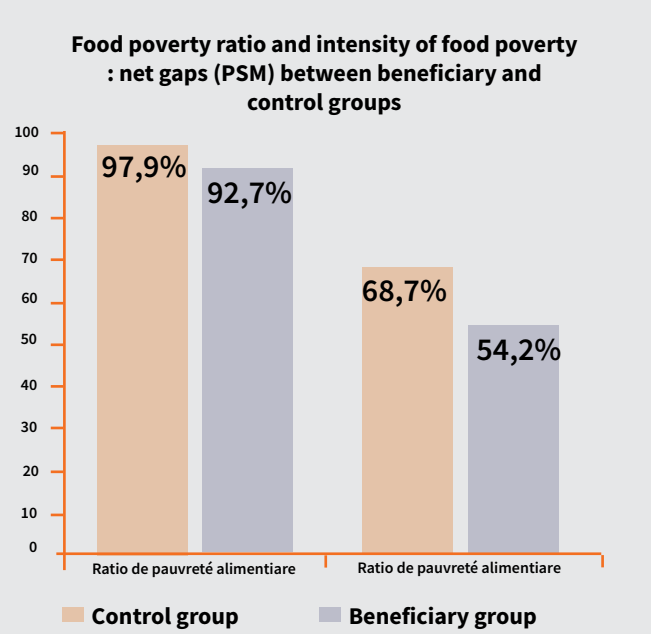
87. **With regard to poverty indicators, the FIAVOTA program has significantly reduced the food poverty ratio and the subjective poverty ratio among beneficiaries compared to the control group, respectively by 5 points and 1 point of percentage. In addition, the intensity of food poverty among beneficiaries, i.e. the gap relative to the food poverty line**, is 14 percentage points lower than the control group. In terms of reported income levels, beneficiaries earn MGA 21,500 (USD 6) per month more than the control group. This amount corresponds more or less to the direct and immediate effect of the amount of cash transfers paid to beneficiary households under the FIAVOTA program. Spill-over and cumulative effects of cash transfers (through other income-generating activities) have occurred, but are limited to individual cases of households given the relatively short period covered by the analysis (very short-term effects).

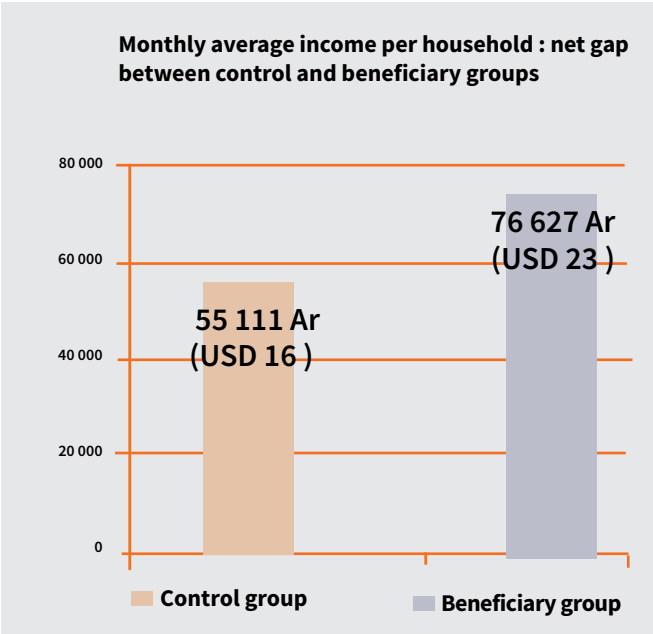
88. **The positive impact of the FIAVOTA program is well captured by households' perception of well-being.** The proportion of beneficiary households reporting "living in difficulty" is lower by 29 points compared to control group households. Similarly, the proportion of households using debt is lower by 4 points among beneficiaries compared to control group households. The level of happiness of beneficiary households is 0.6 percentage points higher than that of control group households. All of these results are statistically significant.

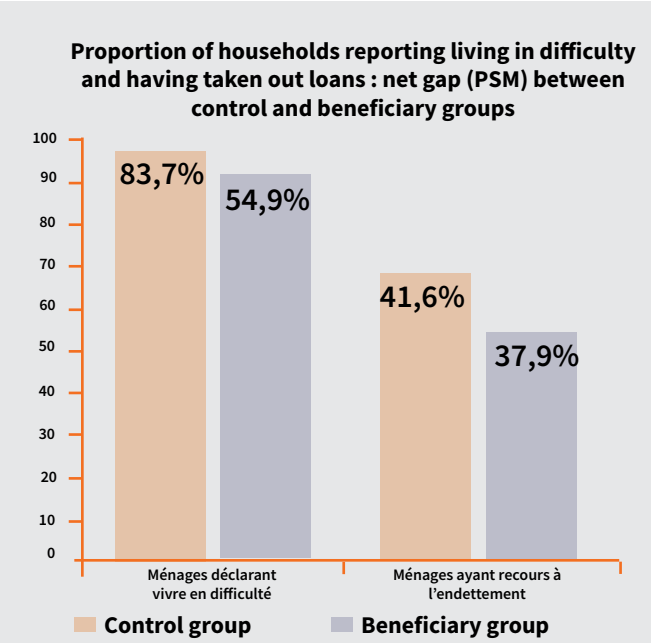
89. **The impact of the FIAVOTA program is fairly larger for smaller households or households with a limited number of children under 5 years of age.** In beneficiary households with one to three members, the food poverty ratio and the subjective poverty ratio are respectively 18 and 3 percentage points lower than among control households. In households with more than 7 individuals, the impact is quite small, or the differences are not significant. The same situation is observed when referring to the number of children under 5: the difference is 11 points for the food poverty ratio in households with only one child, 4 points for households with 2 children and only 2 points for households with 3 children or more (to the benefit of beneficiary households in all cases). These results are more or less predictable to the extent that cash transfers to beneficiary households are fixed, regardless of household size or the number of children under 5 years of age.

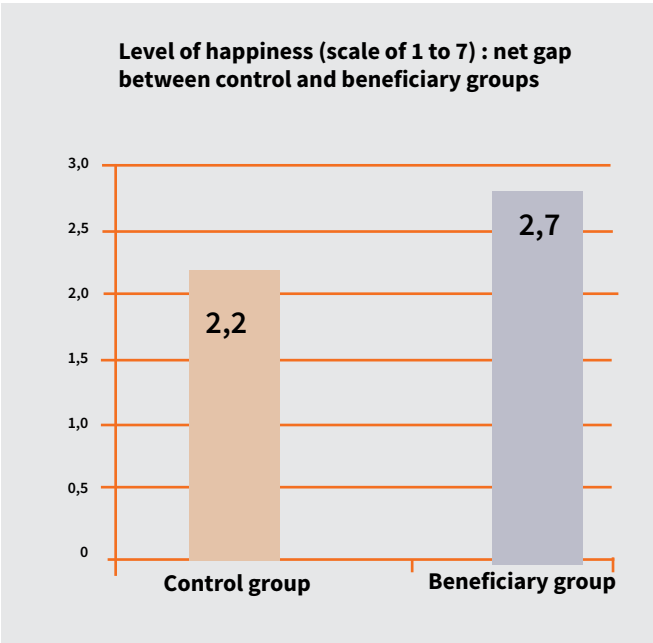
90. The impact is fairly large among female-headed households. For this category of households, the food poverty ratio is 10 percentage points lower among beneficiaries compared to the control group. The difference is only 3 points for male-headed households.

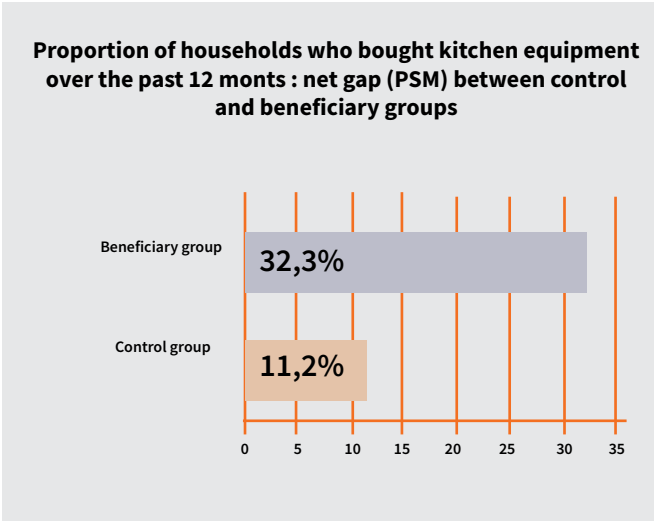
Figure 6: Net impact of the FIAVOTA program on household poverty and well-being (PSM gap)











Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

Table 28: Impact of the FIAVOTA program on household economic well-being indicators

Indicators	Food poverty ratio (%)	Intensity of food poverty (% threshold)	Ratio of subjective poverty (%)	Proportion of households reporting living in difficulty (%)	Proportion of households reporting debt use (%)	Level of happiness (score out of 7)	Level of reported income (MGA)
Overall	**-5,1**	**-14,5**	**-0,6**	**-28,7**	**-3,7**	**0,6**	**21515**
SOCIAL PROTECTION							
Support other than FIAVOTA	-5.9	-15.8	-1.1	-32.2	-6.4	0.7	20253
No other support than FIAVOTA	-5.7	-14.5	-0.7	-25.2	-0.6	0.4	11663
HOUSEHOLD SIZE							
1 to 3 individuals	-18.0	-20.1	-2.9	-29.3	-5.7	0.8	27426
4 to 6 individuals	-7.2	-17.6	-0.3	-31.7	-5.1	0.5	17931
More than 7 individuals	-0.7	-12.8	-0.7	-27.9	-2.5	0.5	27569
NUMBER OF CHILDREN UNDER 5 YEARS							
1 child	-11.8	-18.9	-2.5	-32.5	-9.1	0.4	30972
2 children	-4.2	-14.5	0.2	-28.1	-3.4	0.5	17943
3 children and more	-1.6	-13.1	-0.5	-29.5	-1.9	0.7	36125
GENDER OF THE HEAD OF HOUSEHOLD							
Male	-3.4	-14.1	-0.7	-30.4	-3.2	0.5	25358
Female	-10.3	-16.9	-1.4	-27.5	-3.9	0.6	25653
EDUCATION LEVEL OF THE HOUSEHOLD HEAD							
No education	-4.0	-14.3	-0.6	-29.8	-3.7	0.5	28412
Primary	-6.1	-14.4	0.1	-25.2	-3.9	0.5	27849
Secondary-University	-8.8	-19.8	-4.5	-36.2	-16.2	0.7	28590

Notes: italics means not significant

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

91. **The proportions of households not satisfied in non-economic areas of life such as food, clothing, housing, health of members, children's education are consistently lower among beneficiary households than among control group households.** The difference is larger in the area of members' health and lower in the area of children's education. On the other hand, with regard to access to drinking water, the difference is not statistically significant. This result stems from the fact that the issue of access to drinking water is more related to constraints concerning supply and availability of distribution networks at the community level than to constraints at the individual level of households.

92. **The impact of the FIAVOTA program is also captured by the higher proportions of beneficiary households compared to control group households who purchased home or productive equipment** as well as significant expenditures for housing rehabilitation or family ceremonies over the last 12 months before the survey. In general, the differences are statistically significant and are the largest on home equipment and family ceremony expenses. On the other

hand, for the purchase of means of transport, the difference is not significant.

93. **The positive impact of the FIAVOTA program on household well-being and self-esteem is reflected in the willingness of beneficiary households to join various types of associations.** The rates of membership associations are consistently higher among beneficiary households than in the control group, and the differences are all significant except for the case of family associations. This result is predictable insofar as this type of association is rather guided by natural links of the members independently of other exogenous characteristics. The associations in which more beneficiaries are member include religious associations and parents' associations at schools. As regards the feeling of marginalization in society, there is no significant difference between beneficiary households and control group households. This result stems from the fact that cohesion or Fihavanana is one of the social values still highly upheld in the Malagasy society in general and in the Southern Region in particular.

Table 29: Impact of the FIAVOTA program on household social well-being indicators

Result indicators	Beneficiary-control group difference	Sig
Non-satisfaction in the area of food (%)	-8.08	***
Non-satisfaction in the area of clothing (%)	-5.04	***
Non-satisfaction in the area of housing (%)	-5.35	***
Non-satisfaction in the area of health (%)	-11.04	***
Non-satisfaction in the area of education (%)	-2.05	**
Non-satisfaction in the area of access to water (%)	2.29	ns
Proportion of households that purchased means of transportation in the last 12 months (%)	-0.03	ns
Proportion of households who purchased kitchen equipment in the last 12 months (%)	21.13	***
Proportion of households who purchased furniture in the last 12 months (%)	4.39	***
Proportion of households who have made housing rehabilitations in the last 12 months (%)	3.74	***
Proportion of households that performed family ceremonies in the past 12 months (%)	19.35	***
Membership in a neighborhood association (%)	0.02	ns
Membership in a religious association (%)	0.15	***
Membership in a professional association (%)	0.13	***
Membership in a political association (%)	0.01	***
Membership in a family association (%)	0.01	ns
Membership in a native association (%)	0.02	***
Membership in a parents' association (%)	0.22	***
Membership in another type of association (%)	-0.01	*
Proportion of heads of households with a feeling of being excluded as an individual (%)	-1.02	ns
Proportion of household heads with a feeling of being excluded as a household (%)	-1.98	***

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

5.

CHAPITRE 5. CONSUMPTION AND FOOD SECURITY

5.1. Summary

The impact of the FIAVOTA program on consumption and food security is positive and significant. The analysis focuses on the short-term effects of the FIAVOTA program on household consumption and food security. The results of the analysis show that, whether in terms of volume of consumption or quality of food, the situation is much better in beneficiary households compared to control group households. Cash transfers significantly induce additional consumption among beneficiary households compared to non-beneficiary households with the same characteristics. In addition, female-headed households are much more dependent on FIAVOTA cash transfers. Indeed, if we consider food expenditures (purchases), the difference between beneficiary and control group households is MGA 206,600 (USD 61) for female-headed households. On the other hand, in terms of consumption (which includes purchases, self-consumption, donations-transfers), the difference is not significant. Moreover, female-headed households are largely dependent on cash transfers to support purchases to cover their daily food needs.

As opposed to what was observed before FIAVOTA, the food consumption of beneficiary households is now based on the usual staple foods such as maize, cassava and sweet potato. In terms of diet, the diet diversity of beneficiary households has improved between 2016 and 2018, and is significantly higher than in control group households. Similarly, consumption frequency among beneficiary households has increased over the FIAVOTA intervention period and is much higher compared to non-beneficiaries. Periods of food difficulty are less frequent among beneficiary households and households rarely resort to survival strategies. As such, their situation is consistently better compared to that of non-beneficiary households with the same characteristics.

5.2. Introduction

94. This section aims to capture the impact of the FIAVOTA program on food consumption and food security in the zones covered by the program in the southern part of Madagascar. The immediate impact of cash transfers on poor households targeted by the program should be increases in the amount and improvements in the quality of food consumed. This change could occur in many ways. First, the direct effect is to increase the purchasing power of beneficiary households, which enables them to increase the amount of food purchased. Indeed, in the case of households living in total destitution, contrary to Engel's law, as income increases, the proportion of expenditure intended for food consumption rises up to the threshold of basic needs.

95. Second, for the households covered by the program, most of whom depend exclusively on agricultural production, the indirect effects of cash transfers on food security go through self-consumption and agriculture. As this regard, two different hypotheses can be made. On the one hand, regular cash transfers could reduce the financial constraints faced by farmers, thus enabling them to increase their investment in agriculture in the short term, and in the medium term to increase and diversify their agricultural so as to increase self-consumption. On the other hand, the improvements in the monetary situation of beneficiary households pursuant to cash transfers would facilitate food purchases on the market. This leads to an increase in the share of monetary expenditure on food and a decrease in the share of self-consumption. This increase in consumption demand due to cash transfers helps develop local markets and increases local production that has become profitable. This will improve the availability and access to food products, and will later reduce the risk of seasonal shortage. Cash transfers could reduce household vulnerability by stabilizing fluctuations in income and consumption. Finally, the FIAVOTA program with its support measures improves households' level of knowledge of preparation of a healthy and nutritious diet.

5.3. Analysis methodology

96. According to the FAO Statistical Division (1996), "Food security is ensured when all people at all times have economic, social and physical access to adequate, safe and nutritious food that meets their nutritional and dietary preferences, enabling them to lead an active and healthy life." (World Food Summit, 1996). According to this definition, food security is a multidimensional concept that includes the aspect of "inclusivity" or "universality", the aspect of "stability over time", the aspect of "accessibility" or "physical availability", the aspect of "affordability", the aspect of "sufficiency", the aspect of "security" and the aspect of "preferences".

97. The desire to address as widely as possible these different aspects, which are often independent of each other, requires using several indicators. As part of monitoring and evaluation, five indicators are used to capture food security. These are the annual amount of food consumption, the Household Food Diversity Score (FDS), the Food Group Frequency Score (FGFS), the Food Consumption Score (FCS), the Survival Strategy Index (SSI), and the Household Food Insecurity Access Scale (HFIAS).

98. Food consumption includes monetary expenditure on food, self-consumption and donations and transfers received by households. It is assessed based on the amounts consumed and the unit prices of products. Unit prices are those reported by households that have made the purchases. For self-consumption and donations/transfers, consumption is valued in reference to the median prices provided by the purchasing households using the unit prices from the community survey as a reference. To control for the seasonal effects on consumption that are very significant in the South, an adjustment coefficient is used when annualizing consumption. This coefficient is calculated from the information provided by households during the midline survey concerning the changes in consumption between the lean period and the normal period. On the other hand, for the other score indicators that refer to fairly short periods (last 7 days), the dynamic analyzes are limited by the effects of seasonality insofar as the collection periods are different between the baseline survey (December-January) and the midline survey (April-May). To address this problem, the results were compared with those from the 2012 ENSOMD survey conducted during the same period (December-January).

99. The household Food Diversity Score (FDS) is based on food consumption in the seven days prior to the survey. It is defined as the number of food groups consumed during the recall period (last seven days) and not the frequency of consumption. Foods are classified into 12 different groups. Each food group is counted into the household score if one food in the group was consumed by at least one household member in the last seven days. The score varies from 1 to 12. Households' diet is classified as follows: "Little varied" (score less than or equal to 3); "Moderately varied" (score more than 4 and less than or equal to 6); and "Adequately varied" (score more than or equal to 7). The food groups used to calculate the FDS are grains, roots and tubers, vegetables, fruits, meat, eggs, fish and seafood, pulses and nuts, milk and dairy products, oils and fats, sugar, and condiments.

100. The Food Group Frequency Score (FGFS) is defined as the number of food groups consumed weighted by frequency in terms of days of consumption in the last seven days (increased by seven). The score varies from 1 to 7 for each food group. This indicator indicates the structure of the household's diet.

101. The Food Consumption Score (FCS) is a composite score based on diet diversity, food frequency, and the comparative nutritional importance of different food groups. Households' food consumption is classified as follows: "Poor" (score less than or equal to 21); "Limit" (score of more than 21 and less than or equal to 35); "Acceptable" (score of more than 35). Each food group is weighted by the number of days of consumption (increased by seven) over the last seven days and the comparative nutritional importance based on "nutrient density", adopted by SADC and summarized as follows:

- 2 for staple foods (grains, roots and tubers);
- 3 for legumes;
- 1 for vegetables;
- 1 for fruits;
- 4 for meat, eggs, fish and seafood;
- 4 for milk and dairy products;
- 0.5 for oil and fat;
- 0.5 for sugar; and
- 0 for condiments.

102. The Survival Strategy Index (SSI) is an index based on how households cope with food difficulties. Two indicators are used: the unweighted number of coping strategies used by the household and the number of strategies weighted by the frequency of use (in number of days) of each strategy over the last seven days. The score ranges from 0 to 11 (11 types of strategies were selected during the survey) for the unweighted indicator and 0 to 77 for the weighted indicator. The higher the sum, the more the household is food insecure. Households are classified as follows in terms of diet: "Adequate" (zero for the unweighted score, and weighted score ≤2); with "Moderately adequate" (unweighted score between 1 and 3, weighted score between 3 and 12); "Not at all adequate" (unweighted score more than or equal to 4, weighted score between 13 and 77).

103. The Household Food Insecurity Access Scale (HFIAS) is based on the idea that food insecurity results in responses that are captured by household behaviors such as anxiety, inadequate quantity and quality of food, reductions and consequences in food intake. The indicator is obtained from the nine sets of questions relating to these households' responses or behaviors.

104. The consumption structure is analyzed in terms of the total number of consumption days weighted by the household size. After each of the indicators were analyzed separately, the relations between them were analyzed out in order to obtain an overall picture of the situation of food security in the South. The analysis consisted in bi-varied correlation analyzes, factor analysis and multiple correspondence analysis.

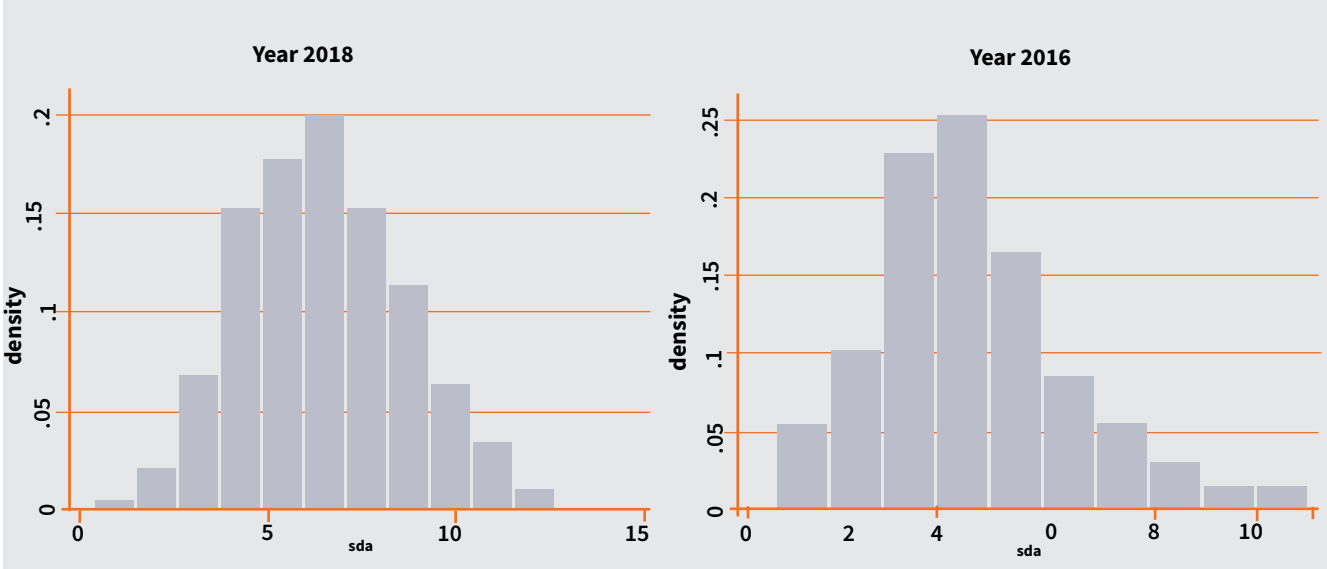
105. In this chapter, the study begins with the dynamics of these food consumption and food insecurity indicators across different household categories in sections 5.4 to 5.7. It ends with the net impact of the FIAVOTA program as captured through the propensity score matching (PSM) method which is developed in section 5.8.

5.4. Food diversity

106. In addition to information on the quantities and values of products consumed by households, the analysis of the household food structure refers to two indicators: the Food Group Consumption Frequency (FGF) Score and the Food Diversity Score (FDS). Through the analysis of these two indicators, the diversity of household diet, the regularity of consumption and individual preferences for food can all be assessed.

107. **The diversity of the FIAVOTA beneficiary households' diet has improved significantly.** In 2018, the Average Food Diversity Score (FDS) is in the range of 6.1 (out of a maximum score of 12), which is nearly 2 points higher than its value in 2016. Nevertheless, this score (50 percent of the maximum score) remains well below the average score for all households in Madagascar in 2012 (73 percent of the maximum score at 5.9 out of a maximum of 8). The average diversity score increases as households live closer to urban areas (7.1 points in the communes that are District capitals and 5.5 points for households located more than an hour from a nutrition site). This shows that diet diversity depends on the availability of products to consume. The comparison of the two FDS distributions (in 2018 and 2016) highlights that the distribution curve has shifted to the right with the modal value being 6 in 2018 whereas it was 4 in 2016. The 2018 distribution curve covers the 2016 distribution (stochastic dominance), showing that the FDS has improved significantly for all households. While less than 14 percent of households were classified as having an adequately varied diet (7 food groups consumed) in 2016, this proportion exceeds 40 percent in 2018. With regard to households with a little varied diet (less than 3 foods consumed), their proportion has decreased considerably and amounts to 9 percent of households in 2018 against more than 34 percent in 2016.

Figure 7: Changes in food diversity score (FDS) distribution



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

108. **Unlike the situation in 2016, food diversity has become more consistent across household categories, except for a few cases.** For households with an ACN, the average number of foods consumed is 7.3 and more than two-thirds of them have an adequately varied diet. Food diversity varies significantly according to the place of residence of the household. Diet is more varied in District capitals: on average 7 food groups are consumed in these communes and more than 54 percent have an adequately varied diet. This situation may be due to more to availability of supply rather than to the means to access food products. Socio-economic characteristics, especially the level of education of the household head, also influence diet structure. The higher the level of education of the head of the household, the more diet is varied: only 34 percent of households headed by a person with only primary school education consume an adequately varied meal whereas this proportion exceeds 55 percent among those headed by an individual who has secondary or university education.

Table 30: Changes in household distribution by Food Diversity Score and average score

Unit: %

	Year 2016					Year 2018				
FDS	Little varied	Moderately varied	Adequately varied	Total	2016 baseline survey	Little varied	Moderately varied	Adequately varied	Total	2018 midline survey
Overall	34.7	51.3	14.0	100.0	4.4	8.5	50.8	40.7	100.0	6.1
REGION										
Androy	36.0	49.9	14.1	100.0	4.4	8.9	52.5	38.6	100.0	6.0
Anosy	26.3	60.6	13.1	100.0	4.5	6.7	42.9	50.4	100.0	6.5
LEVEL OF MALNUTRITION										
Urgent	43.3	47.8	8.9	100.0	4.0	7.7	51.4	40.9	100.0	6.1
Warning	37.7	52.1	10.2	100.0	4.2	10.5	52.8	36.7	100.0	5.8
Requires monitoring	27.4	52.5	20.1	100.0	4.8	7.3	48.6	44.1	100.0	6.4
SOCIAL PROTECTION										
Cash transfers	24.1	56.9	19.1	100.0	4.9	10.6	48.9	40.5	100.0	6.1
Food rations	34.6	52.6	12.8	100.0	4.4	8.3	50.1	41.6	100.0	6.2
Other support	18.1	50.7	31.2	100.0	5.7	5.7	25.8	68.5	100.0	7.4
No support	40.2	47.5	12.3	100.0	4.1	8.2	53.9	37.9	100.0	6.0
PRESENCE OF ACN OR AC IN HOUSEHOLD										
Household with no ACN	36.3	52.1	11.5	100.0	4.3	8.9	52.4	38.7	100.0	6.0
Household with an ACN	15.1	41.0	44.0	100.0	6.2	3.9	30.1	66.0	100.0	7.3
TYPE OF HOUSEHOLD										
Male single parent	37.6	57.3	5.1	100.0	3.8	5.9	61.5	32.7	100.0	6.1
Female single parent	37,1	52.8	10.1	100.0	4.2	8.8	52.0	39.2	100.0	6.0
Extended or polygamous	29,0	51.8	19.2	100.0	4.8	7.6	54.8	37.7	100.0	6.1
Nuclear	34.6	50.2	15.2	100.0	4.4	8.6	49.2	42.1	100.0	6.2

FDS	Year 2016					Year 2018				
	Little varied	Moderately varied	Adequately varied	Total	2016 baseline survey	Little varied	Moderately varied	Adequately varied	Total	2018 midline survey
HOUSEHOLD SIZE										
1 to 3 individuals	41.5	46.4	12.1	100.0	4.2	10.6	51.0	38.4	100.0	6.1
4 to 6 individuals	34,3	53.2	12.5	100.0	4.4	7.5	49.4	43.1	100.0	6.1
7 to 10 individuals	33,5	51.7	14.8	100.0	4.4	8.3	52.2	39.5	100.0	6.1
More than 10 individuals	30,0	48.9	21.1	100.0	4.8	10.9	51.8	37.3	100.0	6.0
NUMBER OF CHILDREN UNDER 5 YEARS										
1 child	32.2	49.7	18.1	100.0	4.6	8.7	47.7	43.6	100.0	6.2
2 children	34.4	52.8	12.8	100.0	4.4	7.3	52.8	39.8	100.0	6.1
3 children and more	39,7	50.7	9.6	100.0	4.1	11.0	51.7	37.3	100.0	6.0
AGE OF THE HEAD OF HOUSEHOLD										
Under 29 years	36.2	51.8	12.0	100.0	4.3	7.6	52.7	39.7	100.0	6.0
30 to 44 years	33.1	51.6	15.3	100.0	4.5	8.9	48.5	42.6	100.0	6.2
45 to 59 years	34.6	50.2	15.2	100.0	4.4	8.0	51.5	40.5	100.0	6.1
60 years and over	36.9	51.4	11.7	100.0	4.4	10.2	52.4	37.5	100.0	6.0
GENDER OF THE HEAD OF HOUSEHOLD										
Male	33.6	50.8	15.6	100.0	4.5	8.5	50.3	41.2	100.0	6.2
Female	37.4	52.4	10.2	100.0	4.2	8.6	51.9	39.5	100.0	6.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD										
No education	41.0	50.9	8.2	100.0	4.0	10.7	54.6	34.7	100.0	5.8
Primary	28.4	54.7	16.9	100.0	4.6	5.7	50.4	44.0	100.0	6.3
Secondary-University	22,4	47.2	30.4	100.0	5.4	6.0	38.8	55.2	100.0	6.9
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD										
Inactive-Unemployed	55.2	39.6	5.2	100.0	3.5	7.6	62.2	30.2	100.0	5.8
Agriculture, Livestock, Fishing	35.6	52.0	12.4	100.0	4.3	8.7	52.6	38.7	100.0	6.0
Processing, Extractive Industry	21.3	66.8	11.9	100.0	4.7	4.9	49.8	45.3	100.0	6.6
Trade	27.5	51.0	21.5	100.0	4.9	10.5	44.7	44.8	100.0	6.2
Administration	6,9	40.5	52.6	100.0	7.0	2.0	33.7	64.3	100.0	7.5
Other services	25,0	50.1	24.9	100.0	5.0	9.2	34.6	56.2	100.0	6.6
RESIDENCE SETTING										
District capital	33.2	47.2	19.6	100.0	4.6	4.8	40.5	54.7	100.0	7.1
Commune capital	29.5	54.3	16.1	100.0	4.5	13.0	53.0	34.1	100.0	5.8
Fokontany	36.0	51.0	13.0	100.0	4.4	7.5	51.0	41.5	100.0	6.1

FDS	Year 2016					Year 2018				
	Little varied	Moderately varied	Adequately varied	Total	2016 baseline survey	Little varied	Moderately varied	Adequately varied	Total	2018 midline survey
SOURCE OF DRINKING WATER										
JIRAMA	23.9	56.0	20.2	100.0	4.7	10.1	39.0	50.9	100.0	6.5
Tank Dam	29.8	52.3	17.9	100.0	4.7	8.4	44.5	47.2	100.0	6.3
Any	37.6	50.4	12.1	100.0	4.3	8.3	55.3	36.4	100.0	6.0
DISTANCE TO A NUTRITION SITE										
Less than 15 minutes	30.8	52.0	17.2	100.0	4.6	8.3	48.0	43.7	100.0	6.2
15 min to 1 hour	39,5	51.3	9.2	100.0	4.1	8.5	53.0	38.5	100.0	6.1
More than an hour	45,4	47.6	7.1	100.0	3.9	10.0	63.9	26.1	100.0	5.5
NUMBER OF HEALTH FACILITIES										
No health facility	34.8	51.7	13.5	100.0	4.4	9.2	51.3	39.6	100.0	6.1
One health facility	36.2	52.3	11.5	100.0	4.3	5.9	48.7	45.4	100.0	6.4
2 health facilities	27.4	39.7	32.9	100.0	5.1	9.9	52.4	37.7	100.0	6.0
NUMBER OF PRIMARY SCHOOLS										
No school	31.4	53.1	15.5	100.0	4.7	12.9	48.5	38.6	100.0	6.0
One school	36.6	50.7	12.7	100.0	4.3	8.6	52.3	39.1	100.0	6.1
2 schools and more	28.3	52.4	19.3	100.0	4.7	2.8	43.1	54.1	100.0	6.7

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018-Baseline 2016, authors' calculations.

109. **Apart from the food diversification, the diet of beneficiary households is increasingly shifting towards the usual staple foods such as grains (rice, maize) and tubers (cassava, sweet potato)**. In addition to the effects of cash transfers, this could also be due to the seasonal effect on availability and supply of products on the market as the survey period was different between the baseline and the midline surveys. A household consumes grains or tubers practically every day (average weekly frequency of 6.8 days in 2018 compared with only 2.3 days per week in 2016). This frequency of grain consumption is almost consistent across categories of households. After grains, legumes (beans, lentils, etc.) are the most often consumed by beneficiary households, with a weekly frequency of 4.6 days. As for vegetables that were consumed for more than 5 days a week in 2016, they are consumed on average only 3 days a week in 2018. Households eat fruit, but quite rarely with a frequency of less than 1 day in the week. Households' diet is still very poor in proteins. Indeed, consumption of dairy products, meat, fish and legumes is very rare at on average of less than one day per week. The frequencies of consumption by food group are almost identical across categories of households.

Table 31 Frequency of consumption over the last seven days by food group

Unit: day

	Year 2016									Year 2018								
	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments
Overall	**2,3**	**0,6**	**5,3**	**3,4**	**0,4**	**0,3**	**0,6**	**1,0**	**5,3**	**6,8**	**4,6**	**3,1**	**0,8**	**0,8**	**0,9**	**2,9**	**0,9**	**6,4**
REGION																		
Androy	2.4	0.6	5.2	3.4	0.4	0.3	0.6	1.1	5.3	6.8	4.5	3.2	0.8	0.8	0.9	2.9	0.9	6.4
Anosy	1.9	0.4	5.4	3.5	0.3	0.2	0.6	0.7	5.7	6.9	5.0	2.7	1.0	0.9	0.8	3.0	0.8	6.5
LEVEL OF MALNUTRITION																		
Urgent	2.6	0.3	5.2	2.6	0.3	0.3	0.6	1.0	5.1	6.8	4.6	2.8	0.8	0.9	1.1	2.7	0.8	6.4
Warning	2.7	0.7	5.0	4.0	0.3	0.1	0.5	1.0	5.2	6.8	4.5	3.2	0.9	0.6	0.4	3.2	0.6	6.4
Requires monitoring	1.8	0.5	5.6	3.3	0.4	0.4	0.7	1.1	5.6	6.8	4.7	3.3	0.9	0.9	1.1	2.9	1.1	6.3
SOCIAL PROTECTION																		
Cash transfer	2.7	0.7	4.9	3.5	0.5	0.4	1.1	1.3	4.7	6.9	4.2	3.1	0.8	0.8	1.0	2.6	0.9	6.3
Food rations	2.7	0.7	5.4	3.2	0.3	0.3	0.6	1.1	5.5	6.8	4.7	3.3	0.9	0.8	0.9	3.1	1.0	6.5
Other support	3.6	0.8	5.8	2.5	1.3	1.0	1.2	2.3	6.4	7.0	5.7	4.4	1.3	1.6	1.5	4.5	1.1	6.5
No support	1.5	0.3	5.1	3.6	0.3	0.3	0.3	0.7	5.3	6.7	4.6	2.8	0.8	0.7	0.7	2.8	0.7	6.3
PRESENCE OF ACN OR AC IN HOUSEHOLD																		
Household with no ACN	2.2	0.5	5.3	3.4	0.3	0.2	0.5	0.8	5.2	6.8	4.6	3.0	0.8	0.7	0.8	2.9	0.8	6.4
Household with an ACN	3.8	1.3	4.7	2.7	1.2	1.2	1.5	3.4	6.2	6.8	4.7	4.1	1.1	1.7	2.0	4.1	1.6	6.6
TYPE OF HOUSEHOLD																		
Male single parent	2.0	0.4	5.6	2.9	0.1	0.1	0.3	0.3	5.7	6.8	4.8	2.6	0.9	0.9	0.7	3.6	0.9	6.1
Female single parent	2.4	0.5	5.3	3.2	0.3	0.2	0.5	0.9	5.2	6.7	4.3	3.0	0.8	0.8	0.7	2.8	0.8	6.3

	Year 2016									Year 2018								
	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments
Extended or polygamous	2.5	0.7	5.1	2.9	0.4	0.4	0.7	1.3	5.7	6.9	4.9	3.3	0.8	0.7	1.3	3.0	0.8	6.4
Nuclear	2.2	0.5	5.3	3.6	0.4	0.3	0.6	1.1	5.3	6.8	4.7	3.1	0.9	0.8	0.9	3.0	0.9	6.5
HOUSEHOLD SIZE																		
1 to 3 individuals	2.4	0.5	5.2	2.9	0.3	0.3	0.5	1.0	5.2	6.8	4.5	2.8	0.8	0.9	0.8	2.9	0.8	6.5
4 to 6 individuals	2.3	0.5	5.2	3.4	0.3	0.2	0.6	1.0	5.2	6.8	4.5	3.0	0.9	0.8	0.8	3.1	0.8	6.4
7 to 10 individuals	2.2	0.5	5.4	3.6	0.4	0.3	0.6	1.1	5.5	6.7	4.8	3.3	0.9	0.8	1.0	2.7	1.0	6.4
More than 10 individuals	2.5	0.9	4.9	3.4	0.4	0.4	0.8	1.4	5.6	6.9	4.4	3.4	0.8	0.8	0.8	3.0	0.7	6.5
NUMBER OF CHILDREN UNDER 5 YEARS																		
1 child	2.6	0.7	5.1	3.2	0.5	0.4	0.7	1.3	5.3	6.8	4.5	3.0	0.9	0.9	0.9	3.0	0.9	6.5
2 children	2.1	0.5	5.4	3.4	0.3	0.3	0.6	0.9	5.4	6.8	4.7	3.2	0.8	0.7	0.8	3.0	0.9	6.4
3 children and more	2.1	0.5	5.2	3.6	0.2	0.2	0.4	0.8	5.1	6.8	4.6	3.0	0.9	0.7	0.9	2.7	0.7	6.3
AGE OF THE HEAD OF HOUSEHOLD																		
Under 29 years	2.1	0.6	5.3	3.4	0.3	0.3	0.3	0.9	5.2	6.8	4.5	2.9	0.9	0.8	0.7	2.8	0.6	6.4
30 to 44 years	2.4	0.5	5.1	3.6	0.4	0.4	0.7	1.1	5.2	6.8	4.6	3.3	0.9	0.8	0.9	3.0	0.9	6.3
45 to 59 years	2.3	0.6	5.4	3.4	0.4	0.3	0.7	1.0	5.4	6.8	4.6	3.2	0.8	0.8	0.9	3.1	0.9	6.4
60 years and over	2.4	0.6	5.5	2.9	0.3	0.3	0.6	1.1	5.6	6.8	4.6	3.1	0.8	0.6	0.9	2.8	1.1	6.5
GENDER OF THE HEAD OF HOUSEHOLD																		
Male	2.2	0.6	5.3	3.5	0.4	0.3	0.6	1.1	5.3	6.8	4.7	3.2	0.8	0.8	0.9	3.0	0.9	6.4
Female	2.4	0.5	5.2	3.2	0.3	0.2	0.5	0.9	5.3	6.7	4.3	3.0	0.8	0.8	0.7	2.8	0.8	6.3

	Year 2016									Year 2018								
	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments
EDUCATION LEVEL OF THE HOUSEHOLD HEAD																		
No education	1.9	0.4	5.4	3.6	0.2	0.2	0.4	0.6	5.1	6.8	4.4	2.9	0.8	0.6	0.7	2.4	0.6	6.2
Primary	2.5	0.6	5.2	3.4	0.4	0.3	0.6	1.2	5.4	6.8	4.8	3.2	0.9	0.9	1.0	3.3	1.0	6.6
Secondary-University	3.4	1.2	4.7	2.5	0.8	0.6	1.1	2.3	5.8	6.9	4.9	3.6	1.0	1.3	1.2	4.0	1.5	6.6
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD																		
Inactive-Unemployed	1.8	0.4	4.5	3.3	0.1	0.1	0.3	0.6	4.3	6.7	4.4	3.1	0.7	0.6	0.7	2.4	0.6	6.3
Agriculture, Livestock, Fishing	2.2	0.5	5.5	3.5	0.3	0.3	0.5	0.9	5.4	6.8	4.6	3.0	0.8	0.7	0.9	2.9	0.8	6.4
Processing, extractive industry	1.7	0.6	4.9	2.7	0.3	0.2	0.6	0.5	5.5	6.8	4.9	3.3	0.9	1.0	0.7	3.0	0.7	5.8
Trade	3.1	0.5	4.3	2.5	0.6	0.3	1.4	1.8	5.0	6.9	4.6	3.4	0.9	0.9	0.8	2.9	1.0	6.5
Administration	4.8	1.9	4.2	1.9	1.8	1.6	2.1	3.8	6.4	7.0	5.2	4.2	1.4	1.4	2.1	4.6	1.5	6.7
Other services	3.1	0.7	4.2	3.1	0.5	0.2	0.8	1.9	5.4	6.8	4.6	3.6	1.0	1.0	1.0	3.4	1.1	6.6
RESIDENCE SETTING																		
District capital	2.4	0.7	4.9	1.1	0.4	0.2	0.6	1.5	5.1	7.0	5.1	4.1	1.0	1.2	1.3	3.4	1.4	6.4
Commune capital	2.3	0.6	4.5	3.7	0.3	0.2	0.5	1.1	5.4	6.7	4.0	2.8	0.8	0.6	0.5	2.6	0.7	6.2
Fokontany	2.3	0.5	5.5	3.5	0.3	0.3	0.6	1.0	5.3	6.8	4.7	3.1	0.8	0.8	1.0	3.0	0.9	6.4
SOURCE OF DRINKING WATER																		
JIRAMA	2.5	0.6	4.9	2.6	0.3	0.4	1.0	1.2	5.4	6.9	4.7	3.2	1.0	0.9	1.2	3.2	1.3	6.4
Tank Dam	2.4	0.4	4.9	4.2	0.5	0.5	0.5	1.2	5.5	6.9	4.7	3.0	0.8	0.9	0.9	3.1	1.1	6.6
Any	2.2	0.6	5.4	3.3	0.3	0.2	0.5	1.0	5.3	6.8	4.5	3.1	0.8	0.7	0.8	2.8	0.7	6.3

	Year 2016									Year 2018								
	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments	Grains	Legumes	Vege-tables	Fruits	Meat and fish	Dairy products	Sugar	Oil	Condiments
DISTANCE TO THE SITE																		
Less than 15 minutes	2.4	0.5	5.2	3.3	0.4	0.4	0.7	1.1	5.4	6.8	4.7	3.1	0.8	0.8	1.0	2.9	0.9	6.4
15 min to 1 hour	2.1	0.5	5.6	3.2	0.2	0.2	0.4	1.0	5.4	6.7	4.7	3.2	0.9	0.7	0.7	3.1	0.8	6.5
More than an hour	2.1	0.6	5.1	3.9	0.3	0.2	0.5	0.8	4.5	6.6	3.6	3.0	0.7	0.7	0.4	3.0	0.5	6.2
NUMBER OF HEALTH FACILITIES																		
No health facility	2.2	0.5	5.3	3.3	0.3	0.3	0.6	1.0	5.3	6.8	4.5	3.0	0.8	0.8	0.8	2.7	0.8	6.3
One health facility	2.4	0.6	5.5	3.4	0.3	0.2	0.6	1.0	5.4	6.7	4.9	3.5	0.9	0.9	1.1	3.5	1.2	6.6
2 health facilities	3.4	0.9	3.4	4.2	0.8	0.6	0.4	2.5	5.6	6.8	4.1	3.3	0.6	0.7	0.4	3.6	0.6	6.7
NUMBER OF PRIMARY SCHOOLS																		
No school	2.4	0.5	5.3	2.4	0.5	0.4	0.7	1.0	5.3	6.9	4.5	3.0	0.7	0.7	0.7	2.6	0.7	6.0
One school	2.2	0.5	5.3	3.7	0.3	0.3	0.5	1.0	5.3	6.8	4.6	3.1	0.8	0.8	0.9	2.8	0.8	6.4
2 schools and more	2.9	0.7	4.9	3.2	0.6	0.2	0.9	1.5	5.2	6.9	4.9	3.2	1.0	1.2	0.9	4.2	1.4	6.6

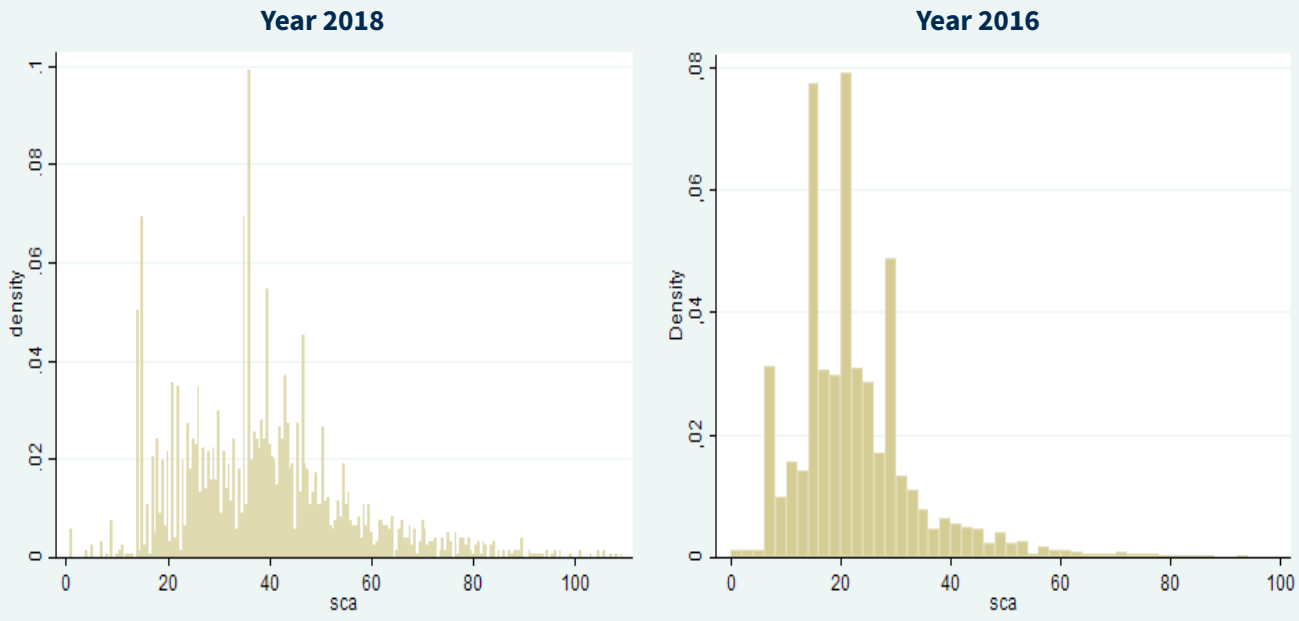
Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018-Baseline 2016, authors' calculations.

5.5. Quantity, quality and frequency of food consumption

110. To take full account of the different dimensions of food security (physical access, individual preferences, security, quality, stability), the analysis is based on the Food Consumption Score (FCS) indicator that combines both the frequency of consumption and the relative nutritional importance of the different food groups.

111. **As reflected by changes in the food consumption score, the diet of beneficiary households has improved in quantity, frequency and quality.** In 2018, households with poor food consumption (FDS less than 21) account for less than 16 percent of the total number of households whereas this proportion was more than 54 percent in 2016. In addition, more than 58 percent of households have "acceptable" consumption in 2018 (compared to 1 percent in 2016). The situation has become comparable to that of Madagascar as a whole in 2012. The score curve distribution has shifted to the right with a much larger spread. The situation of households with an ACN and those headed by a civil servant differs from that of other household categories with a fairly high food consumption score of 51 and 52, respectively. In terms of food consumption score, t**he improvement of the food security situation is much more visible in urban areas.** Among households residing in District capitals, more than seven out of ten households have an acceptable food consumption.

Figure 8 : Changes in the distribution of the food consumption score



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

Table 32: Changes in the household distribution by food consumption score and average score

	Year 2016					Year 2018				
	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS
Overall	54.3	32.3	13.5	100.0	23.7	15.7	26.3	58.0	100.0	39.8
REGION										
Androy	54.3	31.7	14.0	100.0	23.7	16.3	26.7	57.0	100.0	39.5
Anosy	54.2	35.6	10.2	100.0	23.4	12.9	24.4	62.7	100.0	41.3
LEVEL OF MALNUTRITION										
Urgent	64.9	26.0	9.1	100.0	21.2	14.3	26.9	58.8	100.0	40.6
Warning	56.6	31.0	12.4	100.0	22.9	16.6	26.8	56.7	100.0	37.0
Requires monitoring	46.4	36.8	16.8	100.0	25.6	15.8	25.5	58.7	100.0	41.9
SOCIAL PROTECTION										
Cash transfer	41.1	42.9	16.0	100.0	26.7	17.7	26.5	55.8	100.0	38.9
Food rations	53.3	32.3	14.5	100.0	23.8	13.9	26.0	60.1	100.0	40.7
Other support	41.4	25.5	33.1	100.0	33.3	7.8	9.0	83.2	100.0	52.0
No support	61.5	28.7	9.8	100.0	21.6	17.6	27.7	54.7	100.0	38.4
PRESENCE OF ACN OR AC IN HOUSEHOLD										
Household with no ACN	56.4	32.4	11.2	100.0	22.6	16.2	26.5	57.3	100.0	39.0
Household with an ACN	28.1	30.8	41.1	100.0	36.3	9.3	23.8	66.9	100.0	50.8
HOUSEHOLD COMPOSITION										
Male single parent	61.2	30.8	8.0	100.0	20.6	11.6	30.6	57.9	100.0	40.1
Female single parent	58.8	30.5	10.7	100.0	22.2	19.2	28.3	52.5	100.0	38.1
Extended or polygamous	46.2	35.8	18.0	100.0	25.8	11.4	24.1	64.5	100.0	42.4
Nuclear	53.5	32.4	14.1	100.0	24.0	14.8	25.5	59.7	100.0	40.3
HOUSEHOLD SIZE										
1 to 3 individuals	61.8	25.7	12.5	100.0	22.3	16.9	26.5	56.7	100.0	39.4
4 to 6 individuals	54.3	33.7	12.0	100.0	23.3	15.5	26.1	58.4	100.0	39.2

	Year 2016					Year 2018				
	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS
7 to 10 individuals	52.3	33.7	14.0	100.0	24.1	15.0	26.5	58.5	100.0	40.9
More than 10 pers.	49.2	30.9	19.9	100.0	25.8	16.9	26.6	56.6	100.0	39.7
NUMBER OF CHILDREN UNDER 5 YEARS										
1 child	51.9	31.5	16.6	100.0	25.4	14.6	28.8	56.6	100.0	40.3
2 children	53.9	33.9	12.3	100.0	23.1	14.7	26.6	58.7	100.0	39.7
3 children and more	59.0	30.2	10.9	100.0	21.9	19.9	21.1	59.0	100.0	39.4
AGE OF THE HEAD OF HOUSEHOLD										
Under 29 years	56.9	30.8	12.3	100.0	22.7	16.8	27.1	56.1	100.0	38.7
30 to 44 years	52.0	34.2	13.9	100.0	24.3	16.4	25.6	58.0	100.0	40.6
45 to 59 years	55.5	29.6	15.0	100.0	23.9	15.4	23.6	60.9	100.0	40.2
60 years and over	53.8	34.2	12.0	100.0	23.3	12.4	31.3	56.4	100.0	39.4
GENDER OF THE HEAD OF HOUSEHOLD										
Male	52.3	33.1	14.6	100.0	24.3	14.4	25.3	60.3	100.0	40.6
Female	59.0	30.1	10.9	100.0	22.2	18.7	28.7	52.6	100.0	38.1
EDUCATION LEVEL OF THE HOUSEHOLD HEAD										
No education	60.6	31.7	7.7	100.0	21.5	19.0	27.3	53.7	100.0	37.2
Primary	49.5	34.6	16.0	100.0	24.6	12.8	25.2	62.1	100.0	41.8
Secondary-University	38.9	30.5	30.6	100.0	29.9	9.3	25.1	65.6	100.0	45.4
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD										
Inactive-Unemployed	72.6	20.3	7.1	100.0	18.7	21.5	24.6	53.9	100.0	37.2
Agriculture, Livestock, Fishing	54.8	32.3	13.0	100.0	23.4	15.8	26.7	57.5	100.0	39.4
Processing, extractive industry	46.7	42.2	11.2	100.0	24.0	12.8	28.4	58.8	100.0	41.1

	Year 2016					Year 2018				
	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS	Poor (%)	Limit (%)	Acceptable (%)	Total (%)	Average FCS
Trade	49.7	36.5	13.8	100.0	25.3	12.7	28.8	58.5	100.0	40.6
Administration	23.0	21.9	55.1	100.0	41.7	3.5	18.5	78.0	100.0	52.5
Other services	46.3	37.9	15.8	100.0	25.2	14.8	23.8	61.4	100.0	42.1
MIDDLE										
District capital	59.0	27.1	13.9	100.0	22.9	9.6	18.8	71.7	100.0	46.7
Commune capital	51.7	35.1	13.2	100.0	24.0	25.9	29.1	45.0	100.0	35.0
Fokontany	54.4	32.0	13.5	100.0	23.6	13.0	26.1	60.9	100.0	40.8
SOURCE OF DRINKING WATER										
JIRAMA	50.5	31.9	17.7	100.0	25.2	17.2	20.5	62.3	100.0	42.6
Tank Dam	52.6	32.5	14.9	100.0	25.1	15.7	24.8	59.4	100.0	40.9
Any	55.2	32.2	12.5	100.0	23.0	15.4	27.9	56.7	100.0	38.9
DISTANCE TO THE SITE										
Less than 15 minutes	49.6	35.3	15.2	100.0	24.7	14.2	25.1	60.7	100.0	41.0
15 min to 1 hour	60.7	28.8	10.5	100.0	22.1	14.7	27.2	58.1	100.0	39.3
More than one hour	65.8	23.3	10.9	100.0	21.4	26.8	32.3	40.9	100.0	33.6
NUMBER OF HEALTH FACILITIES										
No health facility	53.8	33.8	12.4	100.0	23.4	16.7	25.8	57.5	100.0	39.2
One health facility	58.7	26.2	15.1	100.0	23.7	10.5	26.8	62.7	100.0	42.9
2 health facilities	42.8	31.4	25.8	100.0	27.5	21.7	31.2	47.1	100.0	36.3
NUMBER OF PRIMARY SCHOOLS										
No school	50.7	35.9	13.5	100.0	24.3	18.1	25.3	56.7	100.0	38.1
School	55.8	31.8	12.4	100.0	23.2	16.4	26.8	56.8	100.0	39.6
2 schools and more	50.7	29.3	19.9	100.0	25.5	8.0	24.3	67.8	100.0	43.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

5.6. Perception of food difficulties and use of survival strategies

112. The analysis of food security through the Survival Strategy Index allows for capturing the dimensions of "universality", "individual preferences" and "stability" that this concept entails. Two types of indicators were selected: the number of survival strategies adopted (unweighted index) and the cumulative duration of their use over the last seven days (weighted index). This approach implies the assumption that households are rational in their choice and their level of consumption in order to achieve maximum possible usefulness. The longer a household uses several strategies over a relatively long period, the more food insecurity is a concern.

113. After the intervention of the FIAVOTA program, the number of beneficiary households experiencing food difficulties has decreased. While in 2016 almost all the households targeted by FIAVOTA reported experiencing food difficulties in the last seven days before the survey, they account for only 75 percent of households in 2018. The situation has changed considerably in Androy compared to Anosy, where more than 84 percent of households still reported being in food difficulties in the last seven days. This situation is also observed among those headed by inactive or unemployed people.

114. In 2018, households used on average one survival strategy less than in 2016. In addition, the cumulative duration of survival strategies decreased by 7 days during this 14-month period (December 2016 to April 2018). The situation of households in the Anosy region has also changed in the same direction, but at a smaller scale. The number of survival strategies decreased by only 0.2 points and the number of days during which they were used decreased by only 4 days.

Table 33: Changes in the proportion of households with food difficulties and Survival Strategy Index

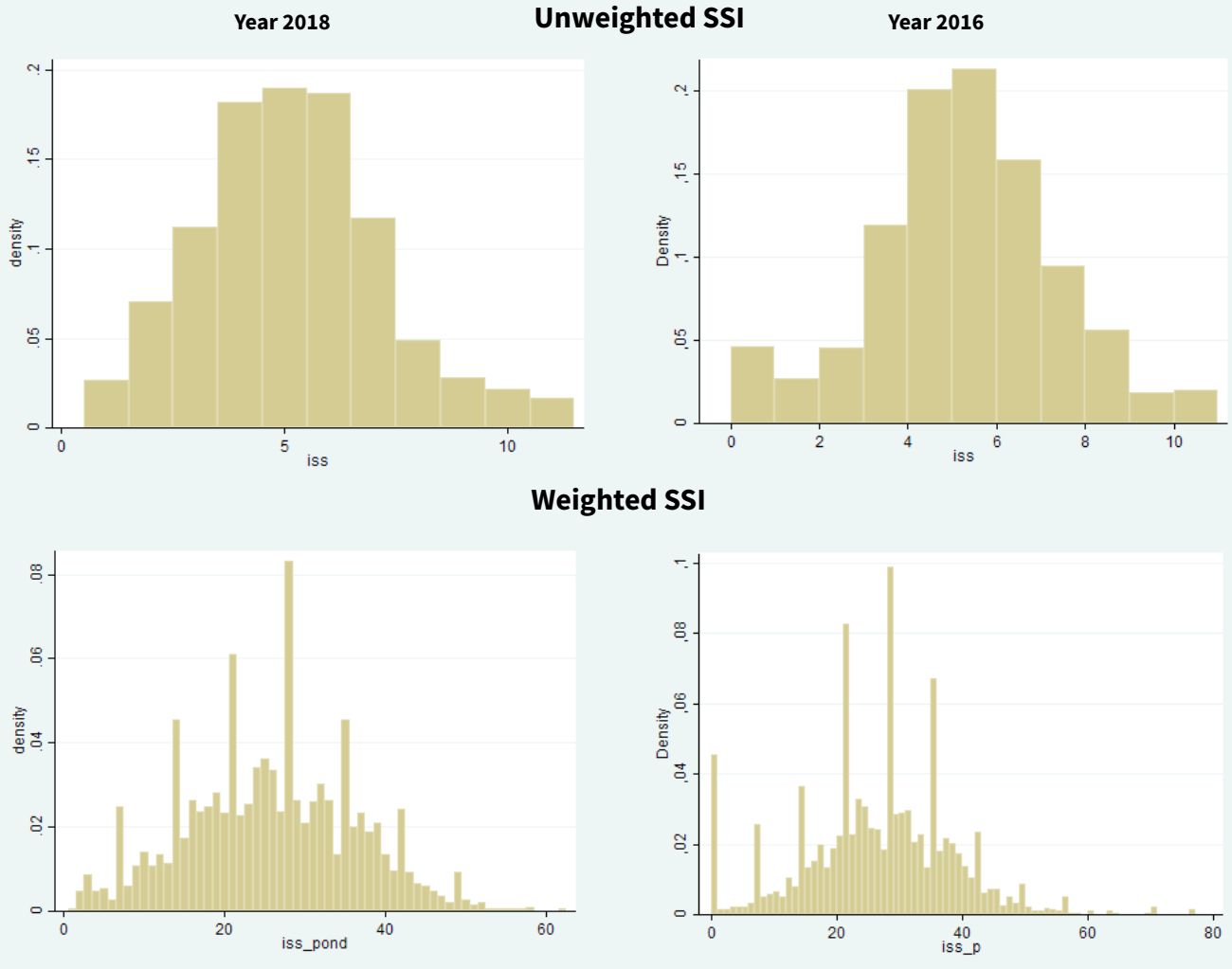
	Year 2016			Year 2018		
	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI
Overall	**95.2**	**4.8**	**25.8**	**75.0**	**3.8**	**18.8**
REGION						
Androy	94.6	4.7	25.5	73.0	3.5	17.7
Anosy	98.9	5.1	27.9	84.3	4.9	23.9
LEVEL OF MALNUTRITION						
Urgent	96.5	5.0	26.6	75.9	3.7	18.0
Warning	94.0	4.4	24.8	73.1	3.9	19.7
Requires monitoring	95.5	5.1	26.3	76.0	3.6	18.6
SOCIAL PROTECTION						
Cash transfers	94.0	5.7	29.3	74.5	3.8	18.8
Food rations	96.0	4.6	25.2	73.2	3.6	18.0
Other support	82.3	4.5	22.3	65.7	3.4	17.4
No support	95.5	4.7	25.6	77.8	3.9	19.9
PRESENCE OF ACN OR AC IN HOUSEHOLD						
Household with no ACN	96.2	4.9	26.2	76.2	3.9	19.4
Household with an ACN	83.3	4.1	21.8	59.2	2.5	11.9
TYPE OF HOUSEHOLD						
Male single parent	93.4	4.3	24.8	69.3	3.7	18.5
Female single parent	96.7	4.9	26.4	76.2	3.8	19.2
Extended or polygamous	94.0	4.7	25.6	78.6	3.8	19.5
Nuclear	94.8	4.8	25.6	74.0	3.7	18.6
HOUSEHOLD SIZE						
1 to 3 individuals	92.7	4.5	24.1	74.6	3.8	18.3
4 to 6 individuals	95.3	4.9	26.1	76.2	3.9	19.3
7 to 10 individuals	96.2	4.8	26.0	74.0	3.6	18.4
More than 10 individuals	95.2	4.9	26.7	73.8	3.7	18.9
NUMBER OF CHILDREN UNDER 5 YEARS						
1 child	91.9	4.5	23.9	76.2	3.8	18.6
2 children	96.6	4.9	26.6	75.9	3.8	18.9
3 children and more	97.6	5.0	27.4	70.5	3.8	19.0

	Year 2016			Year 2018		
	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI
AGE OF THE HEAD OF HOUSEHOLD						
Under 29 years	94.7	4.7	25.6	74.4	3.9	19.4
30 to 44 years	95.2	4.9	26.3	72.9	3.6	18.0
45 to 59 years	96.5	4.7	25.6	77.1	3.9	19.0
60 years and over	93.8	4.8	25.4	77.9	3.8	19.7
GENDER OF THE HEAD OF HOUSEHOLD						
Male	94.7	4.8	25.6	74.3	3.7	18.6
Female	96.4	4.9	26.5	76.6	3.8	19.3
EDUCATION LEVEL OF THE HOUSEHOLD HEAD						
No education	91.9	4.5	23.9	76.2	3.8	18.6
Primary	96.6	4.9	26.6	75.9	3.8	18.9
Secondary-University	97.6	5.0	27.4	70.5	3.8	19.0
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD						
Inactive-Unemployed	94.5	4.7	26.8	83.5	4.0	20.5
Agriculture, Livestock, Fishing	95.9	4.8	26.2	74.6	3.8	18.7
Processing, extractive industry	96.5	5.0	26.4	77.1	3.7	18.5
Trade	96.0	4.9	24.4	72.4	3.8	18.4
Administration	83.5	3.4	18.2	59.8	2.9	12.7
Other services	91.2	4.6	23.7	73.5	3.7	19.4
RESIDENCE SETTING						
District capital	96.7	5.0	24.5	60.1	2.4	10.6
Commune capital	93.6	4.3	23.7	79.4	4.0	22.2
Fokontany	95.4	4.9	26.4	74.8	3.8	18.5
SOURCE OF DRINKING WATER						
JIRAMA	94.8	4.5	24.3	69.4	3.5	18.2
Tank Dam	93.7	4.6	24.5	73.4	3.4	17.0
Any	95.7	4.9	26.4	76.6	3.9	19.6
DISTANCE TO THE SITE						
Less than 15 minutes	94.5	4.8	25.5	75.2	3.6	18.4
15 min to 1 hour	96.3	4.8	25.9	72.4	4.1	18.9
More than one hour	96.5	4.9	27.7	79.1	4.0	21.2

	Year 2016			Year 2018		
	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI	Proportion of households with food difficulties in the last seven days (%)	Unweighted SSI	Weighted SSI
NUMBER OF HEALTH FACILITIES						
No health facility	95.5	4.9	26.5	76.0	3.9	19.3
One health facility	95.7	4.4	24.2	69.6	3.5	17.3
2 health facilities	87.6	4.2	21.4	81.2	3.3	17.9
NUMBER OF PRIMARY SCHOOLS						
No school	95.2	5.2	27.3	76.5	3.6	17.5
School	95.3	4.7	25.6	75.8	3.8	19.3
2 schools and more	94.8	4.8	25.1	67.3	3.6	17.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

Figure 9: Changes in the unweighted and weighted survival strategy index distribution



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

5.7. Food security: multidimensional analysis

5.7.1. Correlations between the different indicators

115. This section aims to analyze food security by combining the different dimensions captured by the different indicators that were considered separately in the previous sections. To this end, the correlations between the indicators are analyzed. Based on the definitions of consumption indicators, the higher the Food Diversity Score or the Food Consumption Score is, the less a household is food insecure. On the other hand, as regards behavioral indicators, the higher the Survival strategy index is, the more a household is food insecure. As observed in most literature, negative correlations can be expected between these two sets of indicators. Bi-varied correlation analyzes (Table 22) and exploratory factor analyzes (Figure 9) were conducted as part of the study.

116. Due to the very difficult and very unstable situation they experience, households in the South tend to be very cautious and to adopt constrained behaviors as regards the management of consumption over time. Food diversification indicates an improvement in the regularity of household consumption. In 2018, the correlation analyzes provide the same results as in 2016. Indeed, the analysis shows a strong positive correlation between the Food Consumption Score (FCS) and the Food Diversity Score (FDS) (Spearman test ρ = 0.75). While both indicators refer the households' food diversity, the FCS also indicates the regularity and frequency of consumption during the recall period.

117. On the other hand, the correlations are fairly weak between consumption indicators and behavior indicators. Correlations are much lower, positive and statistically significant between the Food Consumption Score and the Food Diversity Score and the Unweighted Survival Strategy Index (respectively ρ = 0.02 and ρ = 0.08). Correlations are low between the two consumption indicators and the weighted Survival Strategy Index, (respectively ρ = -0.16 *** and ρ = 0.15). These weak correlations between consumption scores and behavioral scores, though counterintuitive, can be interpreted in two ways. Firstly, as mentioned above, the very critical situation that households experienced on the long run forces some of them to adopt constrained behaviors both statically and dynamically. Taking into account the high volatility of the food situation, some households adapt their strategy and apply the "precautionary principle" in anticipation of their future situation. As they anticipate a deterioration in the future situation as a constraint, the households make the decision to diversify current consumption while adopting precautionary measures and survival strategies (reduced consumption or frequency) along the way in order to maintain their current situation over a long period. Secondly, the situation experienced by households is so difficult that households have lost their "benchmark" in terms of consumption standards (attrition of preferences).

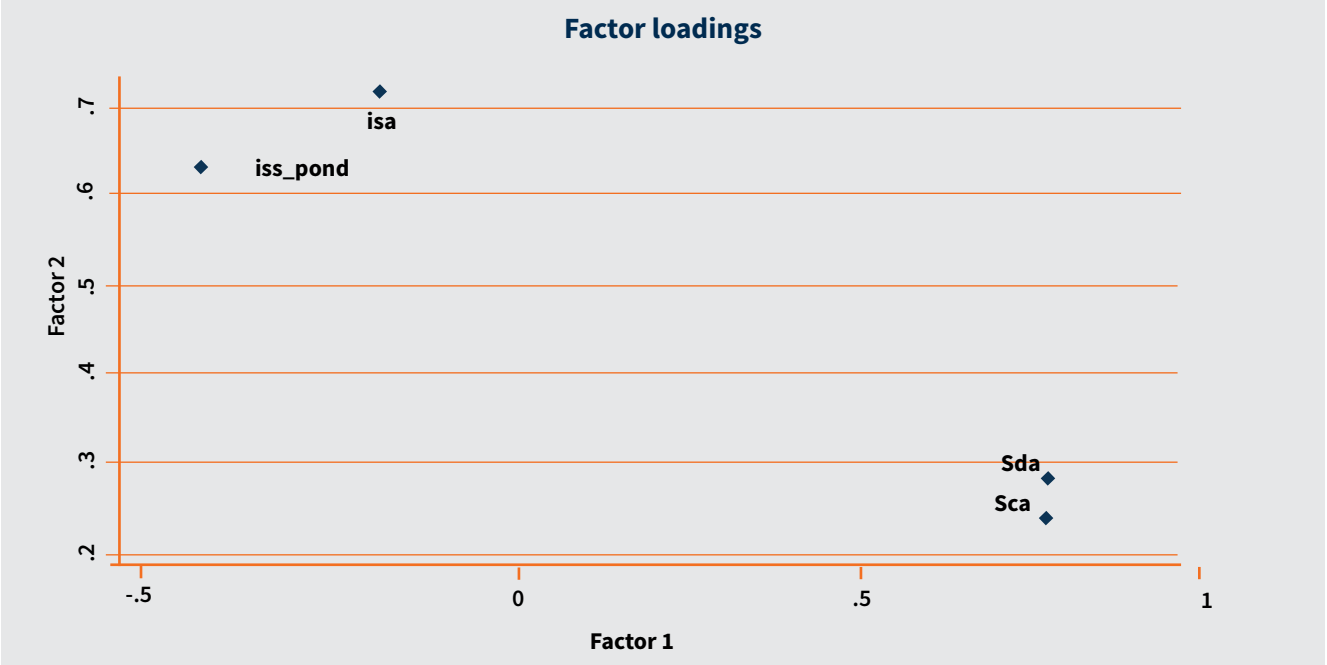
Table 34: Spearman correlation coefficients between different food security indicators

Indicators	FDS	FCS	SSI	Weighted SSI
FDS				
FCS	0.7505 ***			
SSI	0.0815 ***	0.0248 ***		
Weighted SSI	-0.1682 ***	0,1513	0.6361 ***	

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

118. A factor analysis highlights two independent and uncorrelated dimensions of food security: the so-called "quality" dimension (food diversity and its frequency with the Food Diversity Score and the Food Consumption Score) and the so-called "quantity" dimension (satisfaction and sufficiency with the weighted or unweighted Survival Strategy Index). These two dimensions form the basis of household groupings for the multidimensional analysis of food security in the next section.

Figure 10: Factor analysis between the different food security indicators



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

5.7.2. Food security, all dimensions

119. The results of the analyzes of correlations between the different indicators allow for highlighting two main dimensions of food security to categorize households: the "quality" or "diversity" dimension (food diversity captured by the Food Diversity Score and the Food Consumption Score) and the "quantity" or "adequacy" dimension (captured by the Survival Strategy Index). The following household categories can be constructed:

- Group in "Acceptable" food situation (green color): households with a food security situation acceptable in terms of quality and quantity. It is defined by an "Adequate" weighted SSI and an "Acceptable" FCS;
- Group in food situation "At risk" (yellow color): households with a food security situation acceptable in terms of quality but not satisfactory in terms of quantity. It is defined by a "Moderately adequate" or "Not all adequate" weighted SSI and an "Acceptable" FCS, or "Adequate" SSI and a "Limit" or "Poor" FCS;

120. Group in a "Critical" food situation (red color): households with a food security situation that is not diversified in terms of quality and not satisfactory in terms of quantity. It is defined by a "Moderately adequate" or "Not at all adequate" weighted SSI and a "Limit" or "Poor" FCS.

121. **The cross analysis of the "quality" and "quantity" dimensions of food security shows that the food security of FIAVOTA's beneficiary households has improved.** In fact, in 2018, only 34 percent of households are classified as being in a "Critical" food situation, i.e. "Moderately adequate" or "Not at all adequate" in terms of quantity and "Limit" or "Poor" in terms of quality (diversity). The proportion was eight out of ten households in 2016. On the other hand, nearly 62 percent of households are classified as "At risk". Some of these households have an "Adequate" diet in terms of quantity and "Poor" diet in terms of quality, namely those households whose food intake comes exclusively from aid. The other part of the households has a "Not adequate" diet in terms of quantity, but acceptable in terms of quality, namely those households that have access to food, but at fairly high costs.

Table 35: Cross analysis of food security according to the quality and the quantity dimensions

Unit: %

Dimension	Quality	Food Consumption Score			
Amount		Acceptable	Limit	Poor	**Total**
Survival Strategy Index	Adequate	3.9	9.5	0.0	**13.4**
	Moderately adequate	32.4	15.0	7.7	**55.1**
	Not at all adequate	20.1	10.7	0.7	**31.5**
	Total	**56.4**	**35.2**	**8.4**	**100.0**

Reading note: In 2018, out of all beneficiary households, 7.7 percent have a diet that is "Moderately adequate" (in reference to the SSI) and "Poor" (in reference to the FCS)

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018-Baseline 2016, authors' calculations.

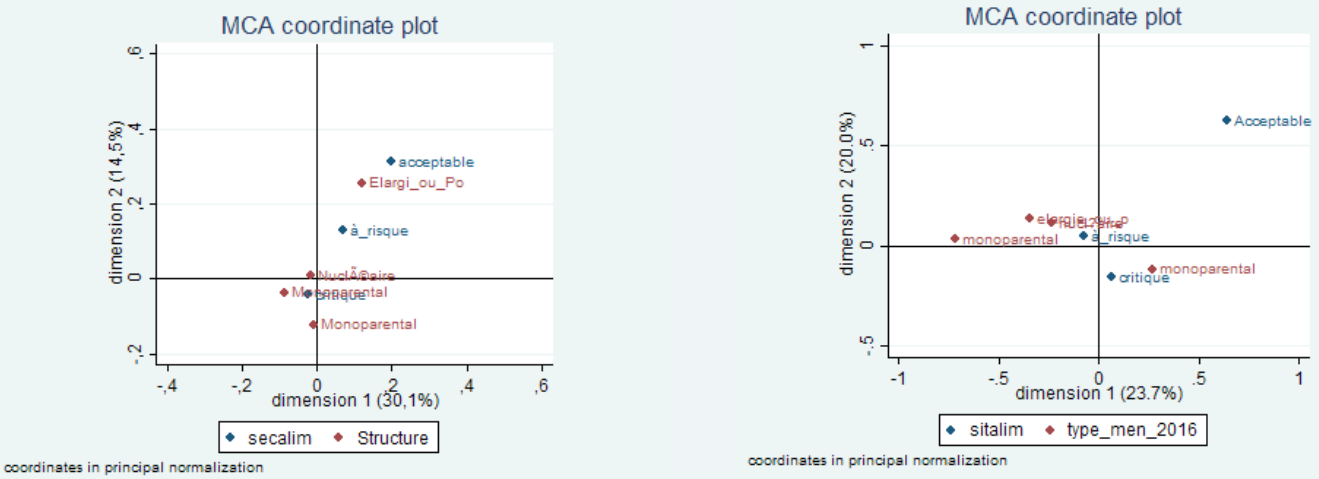
122. The Multiple Correspondence Analysis identifies some characteristics of the household categories according to their particularities. When considering household composition, changes in the food situation are not very favorable for "Extended or polygamous" households. Indeed, while their situation was more or less "acceptable" in 2016, this is no longer the case in 2018. With regard to household size, households with a fairly small size (less than 3 individuals) saw only a slight improvement in their food situation compared to other categories between 2016 and 2018. As for the number of children, it does not significantly affect household consumption.

Figure 11 : Multiple Correspondence Analysis - household characteristics

Year 2018

Household composition

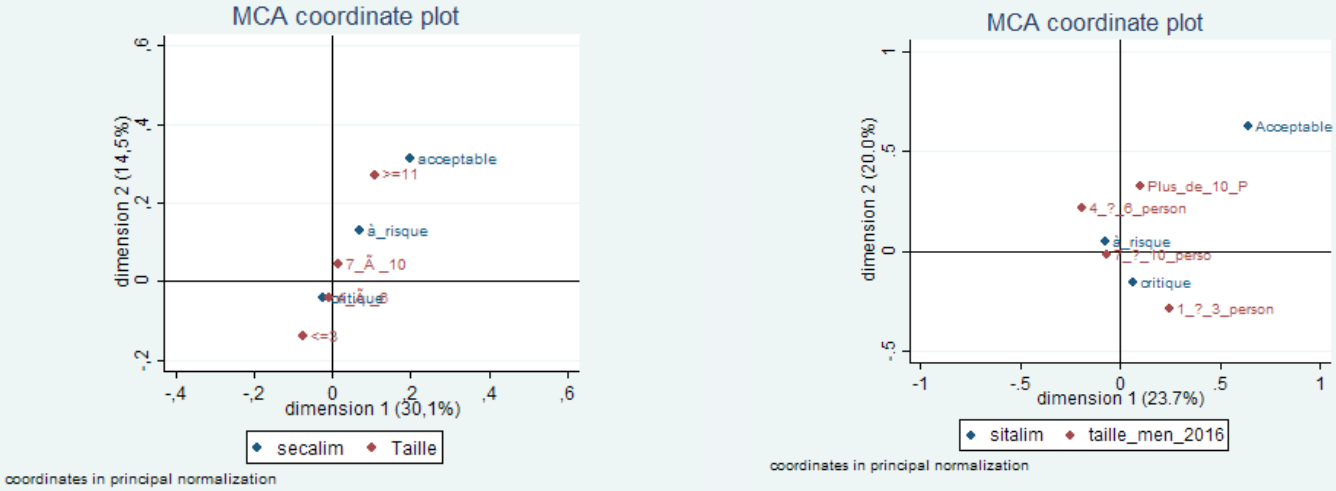
Year 2016



coordinates in principal normalization

coordinates in principal normalization

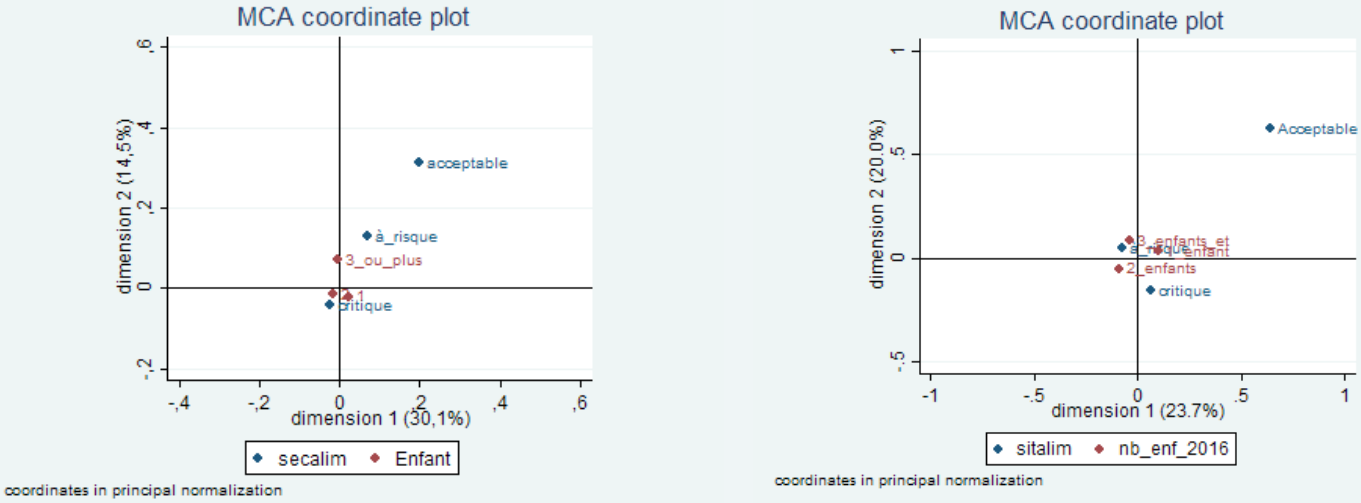
Household size



coordinates in principal normalization

coordinates in principal normalization

Number of children



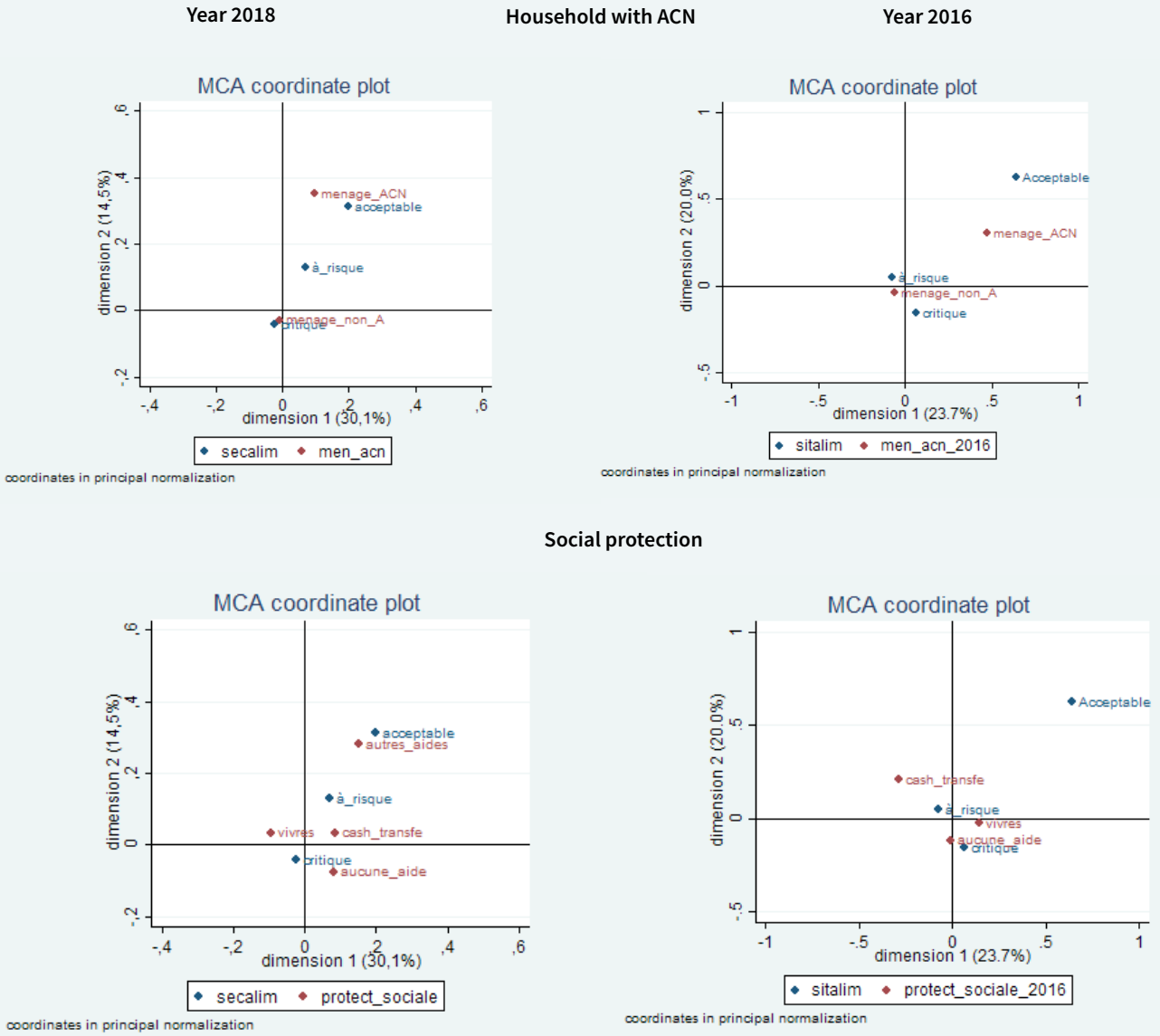
coordinates in principal normalization

coordinates in principal normalization

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018-Baseline 2016, authors' calculations.

123. **The household situation in relationship with aid programs and the social protection system plays an important role in food security, with their level of involvement being important.** As with other household categories, households with an ACN or AC experienced an improvement in their monetary status. However, the improvement is not as large as what is observed in households with no ACN. For more than 22 percent of them, the situation is classified "Acceptable" and for less than 34 percent, the situation is classified as "Critical" compared to more than 43 percent among households with no ACN.

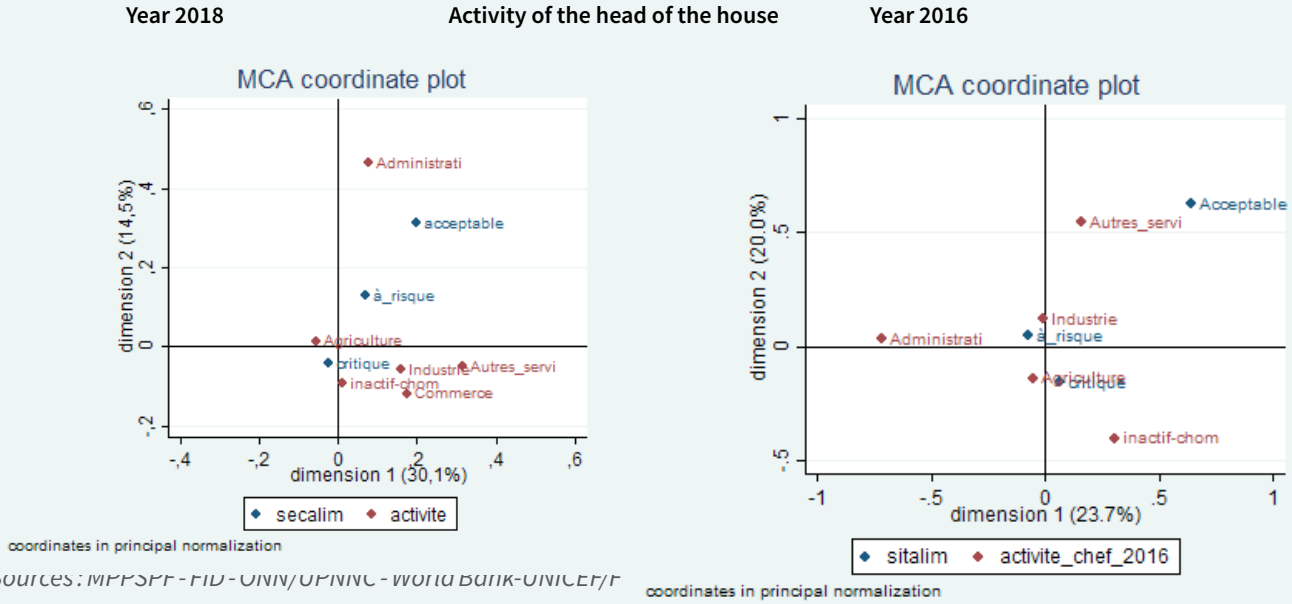
Figure 12: Analysis of multiple correspondences - Situation with regard to social protection



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

124. The economic activity of households is a determining factor of their food security situation. **Households headed by workers in the service sector other than the administration experienced a considerable improvement in their food situation relative to other households between 2016 and 2018.** The situation is not the same for households headed by an inactive or unemployed person. The worst situation concerns this last category of households (inactive or unemployed): more than 66 percent of them are n a "Critical" food situation. As shown by these results, food insecurity is due rather to the lack of means to access food products than to issues of supply or availability of products.

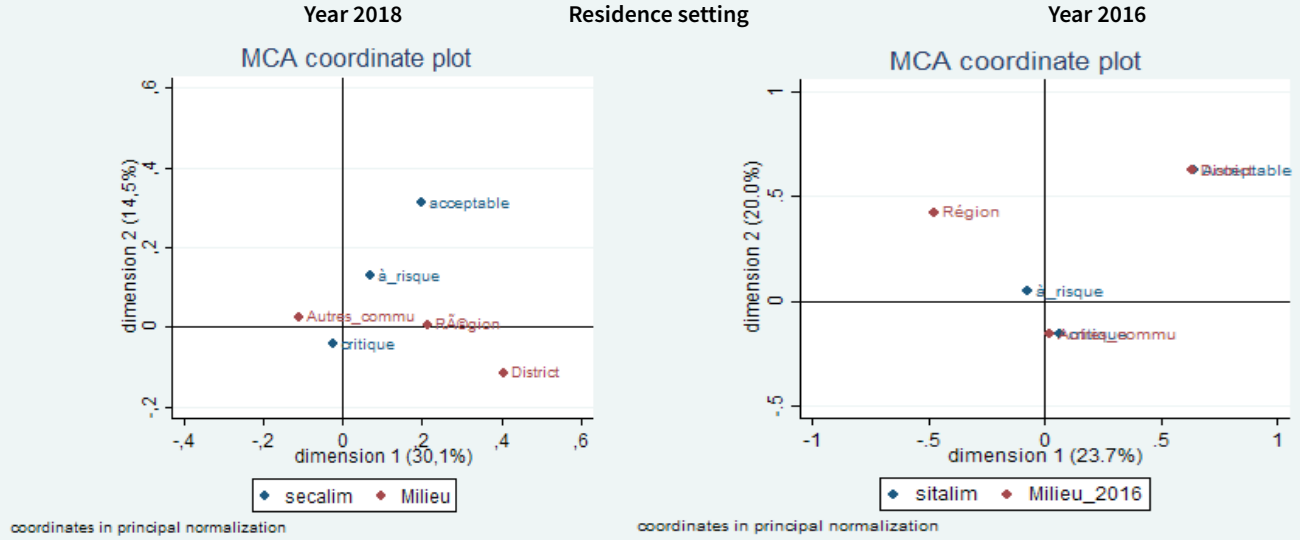
Figure 13 : Multiple correspondences analysis - Characteristics of the head of household



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/F

125. The analysis of food security according to the geographical situation confirms the importance of the issue of means compared to the issues of supply or availability. Indeed, the relations between the geographical variables "Regions" (Anosy, Androy) and "Settings" (Regional capital, District capital and others) with the food situation are not significant.

Figure 14: Multiple correspondences analysis - Residence setting



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey - 2016 Baseline, authors' calculations.

5.8. Net impact of the FIAVOTA program on beneficiary households' food consumption and food security

126. In this analysis, the net impact of the FIAVOTA program on consumption and food security is assessed at the household level by comparing the situation of beneficiary households with that of control group households matched according to the propensity score. The indicators selected are all linked to food and food security. They are classified into two main categories:

- Amount of food consumption: annual level of food expenditure, annual level of consumption, annual level of food consumption per capita;
- Food Security: Food Diversity Score (FDS), Food Consumption Score (FCS), Survival Strategy Index (SSI), proportion of households "Severely insecure" according to the Household Food Insecurity Access Scale (HFIAS), the proportion of households with "Poor" diet according to the FCS, the proportion of households with "Little varied" diet according to the FDS.

127. The FIAVOTA program has had a positive impact on the food consumption and food security of beneficiary households. Regardless of the indicator considered, the situation of beneficiary households is fairly better compared to control group households.

128. **In terms of amount of food consumption, the FIAVOTA program has had a positive and significant impact.** A beneficiary household consumes much more than a household in the control group. In the last 12 months preceding the survey, beneficiary households spent (on-market purchases) an average of MGA 220,100 (USD 65) in food more than households in control group. For the value of consumption (expenditures or purchases, self-consumption and donations/ transfers), the difference is also statistically significant and is in the range of MGA 238,800 (USD 70), with beneficiary households faring better. The evaluation of the amounts per household (and not per capita) allows for assessing the additional consumption due to cash transfers to the extent that FIAVOTA cash transfers allocate a fixed amount per household without taking into account the size of the household. Indeed, in the 12 months preceding the survey, i.e. between May 2017 and April 2018, a beneficiary household earned on average MGA 360 000 (USD 106) (12 payments of MGA 30 000 per month). With the gap observed in terms of monetary expenditure allocated to food, it is estimated that for the current level of cash transfers (MGA 30,000 per month), **MGA 100 transferred leads to an increase of MGA 61 in expenditure or purchases in food.** These results are consistent with results observed in international studies.[8] Transfers allocated under FIAVOTA for the recovery fund (MGA 180,000 per household) are supposed to be reserved exclusively for productive investment expenditures.

129. **Compared to male-headed households, female-headed households are highly dependent on FIAVOTA cash transfers.** In fact, if we consider food expenditures (purchases), for the female-headed households category, the difference between beneficiaries and control group households is MGA 206,600 (USD 60). On the other hand, in terms of consumption (purchases, self-consumption, donations-transfers), the difference is no longer significant. As shown by these results, female-headed households are largely dependent on cash transfers to support purchases to cover their daily food needs.

130. If per capita consumption (without an equivalence scale) is considered, a FIAVOTA beneficiary household member consumes MGA 90,200 (USD 26) more than a control group household member in the last 12 months preceding the interview. The difference is statistically significant. According to this indicator, the impact is fairly large among small households. The gap between beneficiaries and the control group exceeds MGA 134,000 (USD 39) per capita for households with less than 4 individuals and decreases to only MGA 60,000 (USD 17) in households with more than 6 individuals.

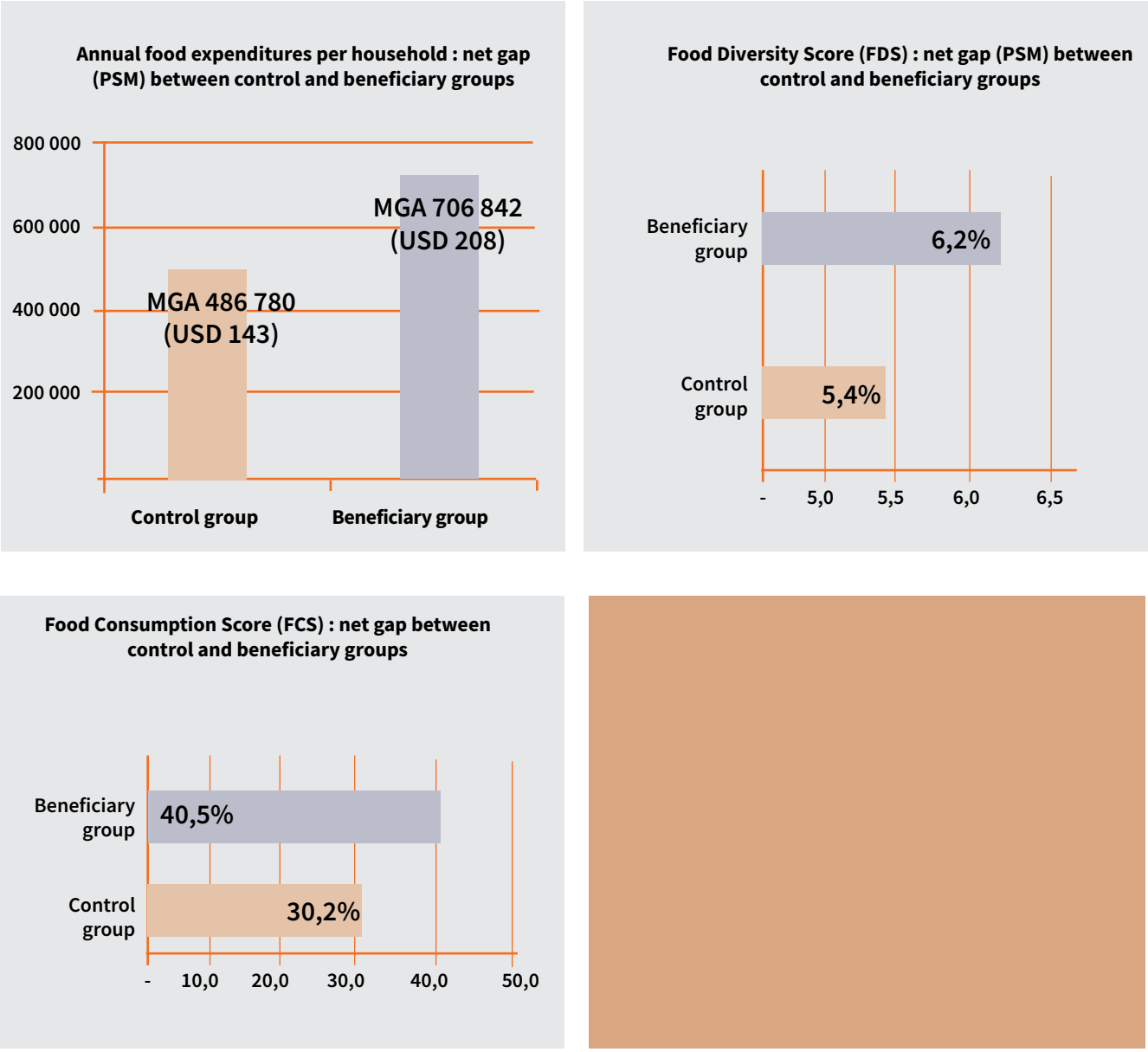
131. **The FIAVOTA program also has a clear positive impact on food security (quality, accessibility, use).** The differences, whether for the Food Diversity Score, the Food Consumption Score or the Survival Strategy Index, are all in favor

[8] Presentation by Rawlings L. in the 2018 mini workshop on the impact of social protection projects in Madagascar - Antananarivo: One USD allocated leads to US 0.75 increase in consumption.

of beneficiary households and are statistically significant: 0.8 points for the FDS, 10 points for the FCS and -1.4 points for the SSI. In addition, the proportion of beneficiary households with "Poor" diet (in reference to the FCS) is less than 0.2 points lower than the proportion among control group households. The differences between the two groups of households are respectively 0.1 percentage point and 6 percentage points on the proportion of households with "Little varied" diet (in reference to the FDS) and the proportion of households "Severely insecure" (according to the HFIAS). The FIAVOTA program has had positive effects on household food security in terms of accessibility, use, availability and household behavior.

132. **Net impact of the FIAVOTA program on consumption and food security**

Figure 15: Net impact of the FIAVOTA program on consumption and food security (PSM gap)



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

Table 36: Impact of the FIAVOTA program on food consumption and food security (PSM gap)

	Amount of households' annual expenditure (MGA)	Amount of annual household consumption (MGA)	Amount of annual consumption per capita (MGA)	Food Diversity Score (FDS)	Food Consumption Score (FCS)	Survival Strategy Index (SSI)	Proportion of households with «Poor» diet according to the FCS (%)	Proportion of households with «Little varied» diet according to the FDS (%)	Proportion of households «Severely insecure» according to the HFIAS (%)
Overall	220062	238832	90220	0.8	10.3	-1.4	-0.2	-0.1	-5.6
SOCIAL PROTECTION									
Aid other than FIAVOTA	200767	216867	88752	0.6	9.1	-1.5	-0.2	-0.1	-6.5
No other support than FIAVOTA	239729	220158	85417	0.9	10.9	-1.3	-0.3	-0.1	-4.8
HOUSEHOLD SIZE									
1 to 3 individuals	164755	150657	134270	0.3	6.3	-1.1	-0.2	**0.0**	-7.1
4 to 6 individuals	199545	208691	94159	0.8	9.3	-1.2	-0.2	-0.1	-3.9
More than 6 individuals	225734	258952	59847	0.8	10.8	-1.6	-0.3	-0.1	-5.3
NUMBER OF CHILDREN UNDER 5 YEARS									
1 child	218898	282800	123752	0.7	9.6	-1.1	-0.2	-0.1	-7.1
2 children	188293	171568	73172	0.6	9.5	-1.3	-0.2	-0.1	-5.6
3 children and more	262106	239425	65091	0.9	11.7	-1.6	-0.3	-0.2	-6.1
GENDER OF THE HEAD OF HOUSEHOLD									
Male	217114	261442	79461	0.8	9.8	-1.3	-0.2	-0.1	-5.9
Female	206564	88326	79454	0.5	8.7	-0.2	-0.1	-0.1	-5.8
EDUCATION LEVEL OF THE HOUSEHOLD HEAD									
No education	197283	219043	79049	0.9	10.7	-1.2	-0.3	-0.1	-3.6
Primary	214784	234007	80724	0.7	8.3	-1.4	-0.2	-0.1	-9.5
Secondary-University	216394	-357359	-9302	0.3	7.5	-1.4	-0.1	0.0	-7.6

Notes: *italics* means not significant

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA midline survey 2018, authors' calculations.

6.

CHAPITRE 6. EMPLOYMENT, ECONOMIC ACTIVITIES AND CHILD LABOR

6.1. Summary

Overall, the FIAVOTA program has had a positive impact on employment, economic activities and child labor. The cash transfers granted fostered the creation of family production Units among beneficiary households. Newly created production Units are often run by women who previously worked as simple caregivers. This situation is a direct result of the program's procedure of selecting only women in charge of children under 5 as direct recipients of the funds.

Transfers have also had positive effects on the economic performance of existing production Units. Many members of beneficiary households experienced increases in their activity income compared to the active employed in control group households. In contrast, the impacts of the program on the integration of young people into the labor market seem mixed. The lack of job opportUnities in the intervention areas and the redistribution of tasks within households as a result of the improved financial situation may be factors limiting integration into the labor market.

Finally, the FIAVOTA program has allowed for reducing the incidence of child labor in beneficiary households. This will lead to medium and long-term impacts on human capital, on the labor market development and on remuneration.

6.2. Introduction

133. This section aims to assess the impact of the FIAVOTA program on the employment and economic activities of beneficiary households. Indeed, cash transfers could have multi-level impacts on employment. At the individual level, the regular availability of cash is supposed to boost the economic activity of the beneficiaries and allow them to finance investments. These investments include human capital of the beneficiaries and/or their children, which should stimulate long-term economic growth. At the community level, it is assumed that the massive influx of cash will boost "local markets" as beneficiaries are expected to spend much of their income on daily expenses. Both of these effects are supposed to support local and then national economic development. Cash transfers are particularly effective in achieving this, since in the case of the poor, even small transfers could be used both to finance the job search and the creation of a production unit, and could therefore produce economic effects by boosting demand for goods and services in local markets.

134. In addition, combining "pure" unconditional cash transfers (FIAVOTA) with cash transfers as "livelihood recovery" would limit the negative effects of unconditional transfers on the volume of household activity. Indeed, economic theory and common sense suggest that "pure" transfers could reduce beneficiaries' working hours: receiving additional income generates an income effect that should be detrimental to work incentives. However, in isolated areas such as Androy and Anosy, the increase in demand following the receipt of income could induce work incentives: the households' additional disposable incomes would in the short term lead to an increase in the prices of basic products and would encourage households to become more involved in family activities. Unlike "pure" unconditional transfers, cash transfers as "livelihood recovery" (Renivola Fiharia) that impose conditions on the use of funds would increase the overall volume of work not only at the household level, but also at the community level. Thus, the impact of the project on the working time and on households' economic activities depends on the respective importance of these two contradictory effects and the effectiveness of the system that is put in place to monitor the effective use of livelihood recovery.

6.3. Context and methodology

135. The definitions of the main labor market indicators are adapted according to the information available in the questionnaire.

- The activity rate indicates both the volume of available labor supply for the economy and the level of integration of individuals into the labor market. Individuals of working age who have integrated or who want to integrate the labor

market are classified as being part of the labor force.

– In this analysis, the working age population is divided into two categories: potentially active adults aged 18 and over, and potentially active children aged 5 to 17. Thus, the analysis of the employment situation is divided into two parts: the first part concerns only potentially active adults and the second part deals with the incidence of child labor. In the context of this analysis, since no information is available on the job search and the availability to work, the activity rate is measured by the ratio of the employed population to the potentially active population.

136. For the other parts of the analysis, the target population is all the working-age individuals aged five and over.

– Employment sectors are based on the definitions in the National Accounting System. Wage earners are employees under the authority of an employer and paid in cash or in kind according to verbal or written agreements established between the two parties. Independent workers are self-employed workers in a production unit that is not classified as a limited liability company (SARL) or public company (SA) and who work alone or employ wage earners or caregivers.

– Active employed are in a multi-activity situation if they perform several jobs simultaneously or alternately over the recall period (last 7 days or last 12 months).

6.4. Situation vis-à-vis employment

137. **The activity rate of the beneficiary population is fairly low.** The employment rate of adults aged 18 and over in beneficiary households is 72 percent. Disparities are observed across regions: the employment rate is 73 percent in Androy against 69 percent in Anosy.

138. **Support other than food has a positive impact on the integration of the population into the labor market.** The activity rate is higher among households receiving cash transfers: 77 percent for those who received cash transfers and 80 percent for those who received support other than food. However, for households that received food, the activity rate is only of 70 percent. Similarly, in the communes classified as “Urgent”, the activity rate is of 79 percent, a level that is higher than the rates in the communes classified as “Requires monitoring” (72 percent) and “Warning” (67 percent). These two phenomena suggest that interventions in the context of social protection programs that affect households and vulnerable communes improve the living conditions of households, release the active from family obligations in order to devote themselves to economic activities, limit migration outside residence communes, and have positive effects on local economic development and on job creation.

139. **The integration of women into the labor market is fairly low compared to men:** the activity rate is only 70 percent for women compared to 74 percent for men. The activity rate follows the successive stages of the life cycle: it peaks between 30 and 49 years old with a rate of 85 percent; at 50 years, the activity rate decreases down to 77 percent.

Table 37: Activity rate of the adult population according to household characteristics in 2018

Unit: %

Activity rate	Year 2018
Overall	72.1
REGION	
Androy	72.8
Anosy	68.7
SEX	
Male	74.2
Female	70.3
AGE	
18 to 29 years	59.2
30 to 49 years	85.1
50 years and over	77.3
LEVEL OF MALNUTRITION	
Urgent	78.6
Warning	67.3
Requires monitoring	72.7
SOCIAL PROTECTION	
Cash transfers	77.3
Food rations	70.0
Other support	79.9
No support	72.1
PRESENCE OF ACN OR AC IN HOUSEHOLD	
Household without an ACN	72.4
Household with an ACN	69.4
TYPE OF HOUSEHOLD	
Male single parent	63.5
Female single parent	68.2
Extended or polygamous	68.3
Nuclear	74.3
HOUSEHOLD SIZE	
1 to 3 individuals	86.1
4 to 6 individuals	78.9
7 to 10 individuals	72.7
More than 10 individuals	51.5
NUMBER OF CHILDREN UNDER 5	
1 child	72.8
2 children	74.1
3 children and more	66.6
AGE OF THE HEAD OF HOUSEHOLD	
Under 29 years	82.2
30 to 44 years	77.8
45 to 59 years	65.8
60 years and over	61.4
GENDER OF THE HEAD OF HOUSEHOLD	
Male	73.1
Female	68.4
EDUCATION LEVEL OF THE HOUSEHOLD HEAD	
No education	73.5
Primary	72.8
Secondary-University	66.6
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD	
Agriculture, Livestock, Fishing	75.1
Processing, extractive industry	68.6
Trade	70.1
Administration	66.0
Other services	66.7
RESIDENCE SETTING	
District capital	69.0
Commune capital	66.6
Fokontany	74.2
Source of drinking water	
JIRAMA	66.0
Tank Dam	74.5
Any	72.4
DISTANCE TO THE SITE	
Less than 15 minutes	72.3
15 min to 1 hour	70.7
More than an hour	73.9
NUMBER OF HEALTH FACILITIES	
No health facility	73.2
One health facility	70.8
2 health facilities	64.8
Number of primary schools	
No school	74.1
One school	72.8
2 schools and more	65.2

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/ FIAVOTA midline survey 2018, authors' calculations.

6.5. Structure of activities

140. The analysis of employment structures and their evolution enables to assess trends in labor productivity and the level of development of the economy in general. Indeed, if there is perfect labor mobility, the movement of the workforce from less productive sectors (usually the primary and the informal sectors) to more productive sectors (tertiary sector and formal sector) is a sign of a higher level of development.

141. **In terms of work volume, even though the economic activities of the target households are still dominated by the primary sector, their weight has fallen significantly**. In 2018, agriculture, fishing and livestock occupy more than 76 percent of the active employed among beneficiary households. A comparison with the 2016 results shows that this proportion has decreases by more than 7 points. **On the other hand, active in beneficiary households are to a much larger extent involved in trade:** the proportion went from 4 percent in 2016 to more than 9 percent in 2018. This shows a mobility of the active towards more productive sectors. The weight of processing activities remains very low at about 2 percent.

142. The emergence of non-agricultural activities is very frequent in the Anosy region, with agriculture accounting for only 57 percent of the active employed, while trade accounts for more than 13 percent of employment. In the Androy region, the proportion of the active employed engaged in trade doubled between 2016 and 2018.

143. The shift towards trade is mainly observed in beneficiary households with no ACN. In Households with an ACN, no major changes are observed as regards agricultural activities and trade.

144. In beneficiary households where there are fewer than 2 children under 5, agricultural activities have lost more than 10 percentage points, while trade has become very frequent. This may be due to the fact that cash transfers are not determined by the number of children under 5 years of age.

145. Active women are turning more towards trade or services than to agricultural activities. The proportion has increased from 7 percent in 2016 to more than 14 percent in 2018, whereas among men, they are turning much more towards services other than trade.

Table 38 : Changes in the employment structure by sector, by region

Unit: %

	Year 2016						Year 2018					
Activity branches	Agriculture	Industry	Trade	Other services	Public administration	Total	Agriculture	Industry	Trade	Other services	Public administration	Total
OVERALL												
Baseline FIAVOTA	83.3	2.0	4.5	9.1	1.0	100.0	76.5	1.8	9.0	10.5	2.2	100.0
ENSOMD2012	76.8	6.5	7.6	6.2	2.8	100.0						
ENEMPSI2012	75.7	7.8	7.0	8.6	1.0	100.0						
REGION												
Androy	85.1	0.4	4.8	8.7	1.0	100.0	80.4	0.9	8.2	8.6	2.0	100.0
Anosy	67.2	7	8.1	16.8	0.9	100.0	57.1	6.2	13.5	19.9	3.3	100.0
SEX												
Male	86.0	2.4	2.1	8.1	1.4	100.0	79.4	1.6	3.7	13.0	2.3	100.0
Female	80.7	1.6	6.9	10.2	0.7	100.0	73.7	1.9	14.2	8.0	2.1	100.0
AGE												
5 to 9 years	90.1	0.0	2.6	7.3	0.0	100.0	95.0	0.0	0.0	5.0	0.0	100.0
10 to 17 years	87.7	0.5	2.7	9.1	0.0	100.0	87.2	0.6	3.9	8.3	0.0	100.0
18 to 29 years	82.2	2.0	5.0	9.8	1.0	100.0	74.6	1.3	10.1	11.1	2.9	100.0
30 to 49 years	79.6	3.2	5.7	9.8	1.7	100.0	72.7	2.4	11.7	11.0	2.2	100.0
50 years and over	84.8	2.5	4.0	7.0	1.6	100.0	78.8	2.1	5.8	10.5	2.8	100.0
LEVEL OF MALNUTRITION												
Urgent	86.0	1.8	4.4	6.8	1.0	100.0	82.6	1.3	9.1	5.4	1.5	100.0
Warning	82.2	1.4	4.2	10.9	1.3	100.0	75.4	2.0	9.9	10.2	2.6	100.0
Requires monitoring	80.7	3.3	5.1	10.1	0.7	100.0	73.6	1.9	8.3	14.0	2.3	100.0
SOCIAL PROTECTION												
Cash transfers	83.1	2.2	5.2	8.2	1.3	100.0	76.1	2.0	7.2	12.0	2.8	100.0
rations	86.2	1.4	3.7	7.6	1.1	100.0	78.2	1.4	10.5	7.8	2.2	100.0
Other support	79.2	0.4	4.8	14.3	1.3	100.0	75.5	1.4	3.9	14.1	5.1	100.0
No support	79.2	3.0	5.5	11.5	0.9	100.0	74.9	2.1	8.5	12.8	1.7	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD												
Household without an ACN	84.4	2.1	4.6	8.4	0.6	100.0	77.0	1.8	9.5	10.2	1.5	100.0
Household with an ACN	72.6	1.4	3.7	16.7	5.5	100.0	72.3	1.1	4.5	13.1	9.0	100.0

Activity branches	Year 2016						Year 2018					
	Agriculture	Industry	Trade	Other services	Public administration	Total	Agriculture	Industry	Trade	Other services	Public administration	Total
TYPE OF HOUSEHOLD												
Male single parent	84.7	2.6	3.6	7.1	2.0	100.0	83.9	0.0	5.9	5.0	5.1	100.0
Female single parent	78.5	1.8	6.6	12.5	0.6	100.0	71.2	2.5	13.0	11.2	2.1	100.0
Extended or polygamous	85.9	1.3	4.2	6.8	1.8	100.0	85.8	1.6	4.1	6.8	1.8	100.0
Nuclear	84.5	2.2	3.8	8.5	1.0	100.0	76.6	1.6	8.7	11.0	2.2	100.0
HOUSEHOLD SIZE												
1 to 3 individuals	79.5	3.0	7.6	8.8	1.1	100.0	75.1	0.9	13.9	8.7	1.4	100.0
4 to 6 individuals	83.5	2.6	4.3	8.4	1.3	100.0	76.3	1.9	9.9	9.8	2.1	100.0
7 to 10 individuals	84.2	1.6	3.8	9.5	0.9	100.0	77.2	1.9	7.5	11.0	2.3	100.0
More than 10 individuals	82.8	1.3	4.9	10.1	1.0	100.0	76.4	1.4	7.7	11.9	2.6	100.0
NUMBER OF CHILDREN UNDER 5 YEARS												
1 child	80.7	2.3	2.7	11.6	2.7	100.0	72.3	1.4	10.1	13.5	2.7	100.0
2 children	82.2	2.4	5.3	8.9	1.3	100.0	77.5	1.6	9.4	9.5	1.9	100.0
3 children and more	83.2	1.9	4.5	9.6	0.8	100.0	81.2	2.6	6.4	7.8	2.0	100.0
AGE OF THE HEAD OF HOUSEHOLD												
Under 29 years	82.5	2.4	4.5	9.4	1.2	100.0	79.8	1.7	9.1	6.9	2.4	100.0
30 to 44 years	82.9	2.1	4.5	9.5	1.0	100.0	76.1	1.4	9.6	10.8	2.1	100.0
45 to 59 years	81.6	2.2	5.0	10.0	1.2	100.0	73.4	2.2	9.3	12.9	2.2	100.0
60 years and over	88.5	1.1	3.4	6.4	0.6	100.0	79.2	2.0	7.0	9.9	2.0	100.0
GENDER OF THE HEAD OF HOUSEHOLD												
Male	84.7	2.1	3.9	8.2	1.1	100.0	77.9	1.5	8.0	10.3	2.2	100.0
Female	78.9	1.7	6.4	12.2	0.7	100.0	71.7	2.5	12.6	11.1	2.1	100.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD												
No education	87.2	1.8	3.4	7.3	0.2	100.0	80.7	1.7	8.5	8.5	0.5	100.0
Primary	81.5	2.1	6.2	9.8	0.4	100.0	78.0	2.0	9.0	9.6	1.5	100.0
Secondary-University	68.7	2.7	6.1	16.4	6.0	100.0	58.7	1.6	10.9	19.3	9.5	100.0
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD												
Agriculture, Livestock, Fishing	94.2	0.5	1.7	3.4	0.2	100.0	84.5	1.2	6.5	6.3	1.6	100.0

	Year 2016						Year 2018					
Activity branches	Agriculture	Industry	Trade	Other services	Public administration	Total	Agriculture	Industry	Trade	Other services	Public administration	Total
Processing, extractive industry	40.2	49.3	3.2	7.3	0.0	100.0	53.8	8.1	13.9	23.9	0.2	100.0
Trade	18.9	0.6	73.2	7.4	0.0	100.0	57.3	0.3	26.0	14.5	1.9	100.0
Administration	42.5	0.0	5.0	9.4	43.1	100.0	50.6	1.5	10.1	8.9	28.9	100.0
Other services	21.6	0.3	3.4	74.4	0.3	100.0	38.2	3.5	17.6	36.6	4.1	100.0
RESIDENCE SETTING												
District capital	64.0	3.5	9.1	22.7	0.7	100.0	73.0	0.6	10.7	13.2	2.5	100.0
Commune capital	85.6	1.9	5.0	6.3	1.2	100.0	51.7	3.3	16.0	26.3	2.7	100.0
Fokontany	87.1	1.7	3.3	6.9	1.1	100.0	84.2	1.4	6.8	5.6	2.0	100.0
SOURCE OF DRINKING WATER												
JIRAMA	58.4	4.3	8.4	27.6	1.3	100.0	47.4	3.2	19.7	26.2	3.5	100.0
Tank Dam	80.5	2.3	4.8	11.3	1.1	100.0	78.1	2.3	7.7	10.4	1.6	100.0
Any	86.4	1.7	4.0	6.8	1.0	100.0	81.3	1.3	7.6	7.7	2.2	100.0
DISTANCE TO THE SITE												
Less than 15 minutes	81.2	2.1	5.1	10.5	1.1	100.0	75.3	1.8	9.9	10.9	2.1	100.0
15 min to 1 hour	85.8	2.3	3.9	6.8	1.2	100.0	78.2	2.1	6.2	10.9	2.7	100.0
More than an hour	90.3	1.1	2.4	6.1	0.2	100.0	81.5	0.5	9.2	7.2	1.6	100.0
NUMBER OF HEALTH FACILITIES												
No health facility	82.8	2.2	4.5	9.6	1.0	100.0	76.7	1.8	9.3	10.2	2.0	100.0
One health facility	84.6	1.6	4.8	7.9	1.2	100.0	79.8	2.1	7.7	7.3	3.1	100.0
2 health facilities	87.2	1.2	3.3	7.0	1.4	100.0	63.7	0.6	10.3	23.9	1.5	100.0
NUMBER OF PRIMARY SCHOOLS												
No school	78.9	3.5	5.2	11.3	1.1	100.0	77.5	3.3	10.0	7.7	1.6	100.0
School	84.7	1.7	3.9	8.8	1.0	100.0	76.4	1.6	8.5	11.3	2.3	100.0
2 schools and more	85.5	1.8	3.5	8.3	1.0	100.0	76.7	0.8	11.7	8.5	2.3	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey-2016 baseline, authors' calculations.

6.6. Multi-activity

146. On the one hand, practicing several activities is one of the possible strategies for minimizing risks and mitigating the effects of economic shocks on households' living conditions. On the other hand, among the effects of cash transfers, improved cash flow and disposable incomes allow beneficiary households to create new production units.

147. The practice of multi-activity is decreasing. Among the active employed aged 5 and over among beneficiary households, more than 11 percent practice at least two jobs concurrently. This proportion is decreasing compared to the 2016 figures. However, if we restrict the analysis to only active employed adults, the multi-activity rate increases significantly between 2016 and 2018. It goes from 29 percent to 33 percent among the active employed in the 30-49 age group, and from 25 percent to 29 percent for those in the age group of 50 years and over.

Table 39: Multi-activity rate, by household characteristics

Unit: %

Multi-activity rate	Year 2016	Year 2018
Baseline FIAVOTA	20.5	11.8
ENEMPSI2012	28.9	
GENDER		
Male	23.4	11.8
Female	17.6	11.8
AGE		
5 to 9 years	2.8	0.2
10 to 17 years	8.5	3.5
18 to 29 years	20.4	16.2
30 to 49 years	29.2	32.9
50 years and over	24.9	28.5
LEVEL OF MALNUTRITION		
Urgent	21.6	15.4
Warning	18.3	10.1
Requires monitoring	22.1	11.3
SOCIAL PROTECTION		
Cash transfers	25.9	13.9
Food rations	19.9	12.4
Other support	35.2	17.0
No support	17.8	10.0
PRESENCE OF ACN OR AC IN HOUSEHOLD		
Household without an ACN	19.2	11.4
Household with an ACN	34.5	16.3
TYPE OF HOUSEHOLD		
Male single parent	19.5	11.1
Female single parent	16.4	10.7
Extended or polygamous	20.3	10.7
Nuclear	21.9	12.5

Multi-activity rate	Year 2016	Year 2018
HOUSEHOLD SIZE		
1 to 3 individuals	23.5	18.7
4 to 6 individuals	23.0	14.0
7 to 10 individuals	19.1	11.4
More than 10 individuals	17.7	6.7
NUMBER OF CHILDREN UNDER 5 YEARS		
1 child	20.9	11.0
2 children	21.5	12.8
3 children and more	18.1	11.0
AGE OF THE HEAD OF HOUSEHOLD		
Under 29 years	22.1	14.6
30 to 44 years	21.4	12.7
45 to 59 years	21.1	11.4
60 years and over	15.8	8.1
GENDER OF THE HEAD OF HOUSEHOLD		
Male	21.6	12.2
Female	16.8	10.8
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
Uneducated	18.7	11.8
Primary	22.6	12.0
Sub-university	23.8	11.6
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD		
Agriculture, Livestock, Fishing	20.9	13.5
Processing, extractive industry	13.7	9.2
Trade	23.8	6.0
Administration	34.3	10.0
Other services	18.2	8.5

Multi-activity rate	Year 2016	Year 2018
RESIDENCE SETTING		
District capital	23.6	13.9
Commune capital	13.0	7.5
Fokontany	21.8	13.1
SOURCE OF DRINKING WATER		
JIRAMA	15.0	9.6
Tank Dam	21.3	12.7
Any	21.0	11.9
DISTANCE TO THE SITE		
Less than 15 minutes	21.2	12.2
15 min to 1 hour	18.1	11.5
More than an hour	22.3	10.0

Multi-activity rate	Year 2016	Year 2018
NUMBER OF HEALTH FACILITIES		
No health facility	21.7	11.4
One health facility	18.2	15.6
2 health facilities	11.1	5.3
NUMBER OF PRIMARY SCHOOLS		
No school	23.7	12.3
School	19.3	11.8
2 schools and more	23.2	11.3

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/ FIAVOTA 2018 midline survey-2016 baseline, authors' calculations.

6.7. Creation of family production units and employment status

148. Production units affect the living standards of households through several ways. Job creation and the income generated by these activities[9] have positive direct effects on the living conditions of households.

149. **Beneficiary households are creating more and more family production units.** While 22 percent of households had no family production unit in 2016, there are only 14 percent in 2018. In addition, in 2018, nearly 38 percent of households have more than one production unit (33 percent have 2 production units and 4 percent more than 2 production units) whereas in 2016, less than 15 percent of households owned more than one production unit.

150. What is encouraging is that in areas classified as "urgent", less than 9 percent of beneficiary households could not create a family production unit, while they were more than 22 percent in 2016. In these areas, more than 36 percent of beneficiary households have more than one production unit.

151. Households with an ACN are those who benefit the most from this improvement. In 2018, less than 7 percent of them had no production unit and more than 44 percent had more than one production unit. This proportion was only 15 percent in 2016.

152. Even among beneficiary female-headed households, the situation has changed. Only 19 percent of them did not yet have a production unit whereas this proportion was 31 percent in 2016. In 2018, more than 15 percent manage more than one production units, a proportion that did not exceed 5 percent in 2016.

[9] The classifications selected for the study are: Crafts, Trade, Transportation, Mining, Logging, Public Works, Other Services, and Other

Table 40 : Changes in household distribution by the number of family production units (FPU) owned by the household

Unit: %

Number of FPUs	Year 2016					Year 2018				
	No FPU	One FPU	Two FPUs	Three FPUs and more	Total	No FPU	One FPU	Two FPUs	Three FPUs and more	Total
OVERALL										
Baseline FIAVOTA	21.6	63.8	13.3	1.3	100.0	14.2	48.0	33.5	4.4	100.0
LEVEL OF MALNUTRITION										
Urgent	22.2	61.6	14.7	1.6	100.0	8.5	54.3	34.6	2.7	100.0
Warning	20.0	66.5	12.2	1.3	100.0	14.4	43.1	36.7	5.8	100.0
Requires monitoring	22.9	63.5	12.7	0.9	100.0	17.7	48.3	30.0	4.1	100.0
SOCIAL PROTECTION										
Cash transfers	18.8	67.7	12.2	1.3	100.0	11.1	51.6	34.2	3.1	100.0
Food rations	19.4	64.5	14.7	1.4	100.0	11.8	50.3	33.7	4.2	100.0
Other support	20.3	67.1	10.1	2.5	100.0	10.7	35.5	45.2	8.6	100.0
No support	25.7	61.1	12.0	1.2	100.0	18.2	44.7	32.3	4.8	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD										
Household without an ACN	21.3	64.1	13.4	1.2	100.0	14.7	48.0	33.0	4.4	100.0
Household with an ACN	25.2	59.5	12.6	2.7	100.0	7.1	48.2	40.9	3.8	100.0
TYPE OF HOUSEHOLD										
Male single parent	24.3	67.3	5.6	2.8	100.0	8.2	53.8	23.6	14.3	100.0
Female single parent	31.8	63.3	4.2	0.7	100.0	19.3	65.7	12.9	2.1	100.0
Expanded or Polygamous	13.6	64.0	19.6	2.9	100.0	12.3	39.3	41.6	6.9	100.0
Nuclear	17.5	63.8	17.4	1.3	100.0	12.1	40.5	42.7	4.7	100.0
HOUSEHOLD SIZE										
1 to 3 individuals	31.2	63.4	5.5	0.0	100.0	15.2	63.9	20.4	0.5	100.0
4 to 6 individuals	21.5	64.9	13.1	0.5	100.0	14.0	48.8	34.8	2.3	100.0
7 to 10 individuals	17.8	64.2	16.4	1.6	100.0	13.5	42.7	36.9	6.9	100.0
More than 10 individuals	17.2	57.5	18.5	6.8	100.0	15.3	39.0	35.5	10.2	100.0
NUMBER OF CHILDREN UNDER 5 YEARS										
1 child	26.4	64.2	7.6	1.9	100.0	17.2	50.1	28.9	3.9	100.0
2 children	23.5	64.0	11.6	0.9	100.0	12.5	47.2	36.0	4.3	100.0
3 children and more	21.6	62.1	14.9	1.3	100.0	12.6	46.0	36.1	5.3	100.0

Number of FPUs	Year 2016					Year 2018				
	No FPU	One FPU	Two FPUs	Three FPUs and more	Total	No FPU	One FPU	Two FPUs	Three FPUs and more	Total
AGE OF THE HEAD OF HOUSEHOLD										
Under 29 years	27.3	62.3	10.0	0.5	100.0	15.4	57.3	25.8	1.5	100.0
30 to 44 years	20.6	65.9	12.5	1.1	100.0	12.8	46.1	37.6	3.5	100.0
45 to 59 years	19.1	63.2	15.5	2.3	100.0	14.4	42.9	35.3	7.3	100.0
60 years and over	17.5	62.1	18.5	1.9	100.0	15.1	44.8	33.5	6.6	100.0
GENDER OF THE HEAD OF HOUSEHOLD										
Male	17.2	64.2	16.9	1.6	100.0	12.1	40.6	42.0	5.3	100.0
Female	31.2	62.8	5.4	0.7	100.0	19.0	65.2	13.6	2.1	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD										
No education	19.2	65.2	14.3	1.4	100.0	12.2	48.1	34.3	5.5	100.0
Primary	20.3	65.3	13.2	1.2	100.0	14.5	47.4	34.5	3.6	100.0
Secondary-University	34.3	55.0	9.6	1.1	100.0	20.0	48.6	29.5	2.0	100.0
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD										
Agriculture, Livestock, Fishing	10.3	73.1	15.3	1.4	100.0	9.5	46.7	38.9	4.9	100.0
Processing, extractive industry	44.2	41.7	13.3	0.8	100.0	26.3	54.4	17.6	1.7	100.0
Trade	14.1	71.8	11.5	2.6	100.0	14.7	57.6	25.7	2.0	100.0
Administration	72.3	24.6	1.5	1.5	100.0	22.2	43.8	30.7	3.3	100.0
Other services	60.9	29.5	8.4	1.2	100.0	32.4	45.2	18.5	4.0	100.0
SETTING										
District capital	29.1	60.0	9.2	1.7	100.0	6.3	51.4	36.4	5.9	100.0
Commune capital	18.6	66.1	14.4	0.9	100.0	31.5	39.7	26.3	2.5	100.0
Fokontany	20.6	64.3	13.7	1.4	100.0	9.5	50.2	35.5	4.8	100.0
Source of drinking water										
JIRAMA	34.5	51.9	11.6	1.9	100.0	25.4	43.3	28.9	2.4	100.0
Tank Dam	21.7	65.5	12.1	0.8	100.0	14.5	46.4	34.3	4.8	100.0
Any	20.2	64.7	13.8	1.4	100.0	11.9	49.4	34.1	4.6	100.0
DISTANCE TO THE SITE										
Less than 15 minutes	21.7	63.5	13.4	1.4	100.0	14.5	49.3	32.1	4.2	100.0
15 min to 1 hour	21.5	65.3	12.2	1.1	100.0	12.8	46.7	36.7	3.8	100.0
More than an hour	20.9	62.4	15.4	1.3	100.0	15.0	42.5	36.0	6.6	100.0

Number of FPUs	Year 2016					Year 2018				
	No FPU	One FPU	Two FPUs	Three FPUs and more	Total	No FPU	One FPU	Two FPUs	Three FPUs and more	Total
NUMBER OF HEALTH FACILITIES										
No health facility	22.5	62.9	13.3	1.3	100.0	13.5	49.0	32.9	4.7	100.0
One health facility	18.2	66.9	13.5	1.4	100.0	11.8	46.7	37.4	4.1	100.0
2 health facilities	19.3	66.2	13.8	0.7	100.0	30.8	39.7	28.2	1.2	100.0
NUMBER OF PRIMARY SCHOOLS										
No school	24.7	60.3	13.5	1.5	100.0	12.0	52.4	30.4	5.2	100.0
One school	20.7	64.5	13.4	1.4	100.0	15.0	48.0	33.1	3.9	100.0
2 schools and more	17.5	66.7	13.8	2.0	100.0	10.7	42.3	40.4	6.6	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey-2016 baseline, authors' calculations.

6.8. Incidence of child labor

153. The incidence of child labor drops sharply among beneficiary households. In 2018, less than 10 percent of children aged 5-17 years are engaged in an economic activity while this exceeded 27 percent in 2016. According to the age groups, it decreases respectively from 13 percent to 2 percent for the 5-9 age group and from 34 percent to 17 percent for the 10-17 age group.

154. The decline in the incidence of child labor is strongly related to the availability of education supply in the locality. In areas where there are more than two functioning primary schools, the incidence of child labor is less than 5 percent compared to 23 percent in 2016. The decline is smaller in localities without a primary school, namely from 25 percent in 2016 to 10 percent in 2018.

155. The early entry of children into the labor market changes also according to employment opportunities in the locality. In urban areas, the incidence of child labor has not changed much at 18 percent in 2016 against 10 percent in 2018. However, in rural areas, it dropped from 29 percent in 2016 to 6 percent in 2018.

156. The level of education of parents or of the head of household is an important factor in the incidence of child labor. Where the head of the beneficiary household has secondary or university education, the decline in incidence is much greater, from 24 percent in 2016 to 5 percent in 2018. Where heads of households have no education, the incidence of child labor still exceeds 11 percent.

Table 41 : Changes in the incidence of child labor

Unit: %

	Year 2016	Year 2018
OVERALL		
Baseline FIAVOTA	27.0	9.4
SOUTH study	27.4	
SEX		
Male	31.0	12.5
Female	22.8	6.0
AGE		
5 to 9 years	13.2	2.1
10 to 17 years	33.8	17.1
LEVEL OF MALNUTRITION		
Urgent	26	12.0
Warning	27.8	7.3
Requires monitoring	22	9.6
SOCIAL PROTECTION		
Cash transfers	27.5	10.0
Food rations	28.4	9.0
Other support	28.4	7.4
No support	24.6	9.7
PRESENCE OF ACN OR AC IN HOUSEHOLD		
Household without an ACN	27.8	9.5
Household with an ACN	18	7.8
TYPE OF HOUSEHOLD		
Male single parent	30.8	10.5
Female single parent	26.6	8.7
Extended or polygamous	29.5	7.3
Nuclear	26.6	10.0
HOUSEHOLD SIZE		
1 to 3 individuals	44	8.8
4 to 6 individuals	24.3	7.9
7 to 10 individuals	27.7	10.3
More than 10 individuals	27.1	9.7
NUMBER OF CHILDREN UNDER 5 YEARS		
1 child	24.2	9.3
2 children	28.4	9.6
3 children and more	26.9	9.1

	Year 2016	Year 2018
AGE OF THE HEAD OF HOUSEHOLD		
Under 29 years	25.9	7.3
30 to 44 years	25.1	10.3
45 to 59 years	29.2	8.7
60 years and over	28.6	9.6
GENDER OF THE HEAD OF HOUSEHOLD		
Male	27.1	9.5
Female	26.8	8.9
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	28.4	11.1
Primary	25.0	7.9
Secondary-University	23.8	5.4
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD		
Agriculture, Livestock, Fishing	29.4	10.6
Processing, extractive industry	26.7	9.2
Trade	19.3	7.2
Administration	30	4.6
Other services	16.4	5.4
RESIDENCE SETTING		
District capital	17.8	10.1
Commune capital	29.0	6.4
Fokontany	29.0	6.4
SOURCE OF DRINKING WATER		
JIRAMA	17.4	8.3
Tank Dam	26.4	10.0
Any	28.3	9.3
DISTANCE TO THE SITE		
Less than 15 minutes	26.6	8.3
15 min to 1 hour	26.4	10.0
More than an hour	30.7	9.3
NUMBER OF HEALTH FACILITIES		
No health facility	26.7	10.2
One health facility	26.8	8.1
2 health facilities	33.1	4.4
NUMBER OF PRIMARY SCHOOLS		
No school	25.9	10.2
School	28.0	8.1
2 schools and more	23.1	4.4

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey-2016 baseline, authors' calculations.

6.9. Net impact of the FIAVOTA program on employment and economic activities of beneficiary households

157. The FIAVOTA program can impact the different aspects of the economic activities of beneficiary households: the integration of individuals into the labor market, the type of employment practices, the employment situation, the creation of a family production unit, the performance of economic activities, the practice of multi-activity and child labor.

158. **The impact of the FIAVOTA program on employment and economic activities is generally positive, especially for women. FIAVOTA cash transfers have enabled members of beneficiary household to create more family production units in the last 12 months.** The proportion of adults among beneficiary households who started a family production unit in the last 12 months is 12 percent above the proportion of members of control group households who did so. This is the direct effect of the livelihood recovery (Renivola Fiharia) granted to beneficiary households in order to revive or recapitalize income-generating activities. On this point, the impact is fairly important for women. The proportion of women who have created family production units is 15 points higher among beneficiary households compared to the control group, whereas for men, the difference is only 7 points. Similarly, among female-headed households, the proportion of individuals who started a production unit is 17 points higher among beneficiary households.

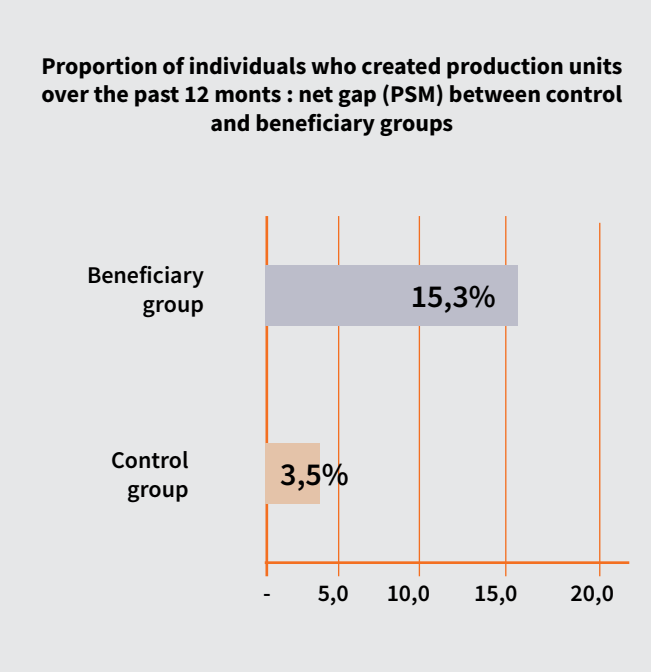
159. **In addition, the FIAVOTA program has also had a positive effect on the economic performance of already operational family production units.** Among beneficiary households, the proportion of workers who reported that their incomes increased compared to 2017 is more than 11 points higher than among control group households. Among female-headed households, the difference is of 12 points.

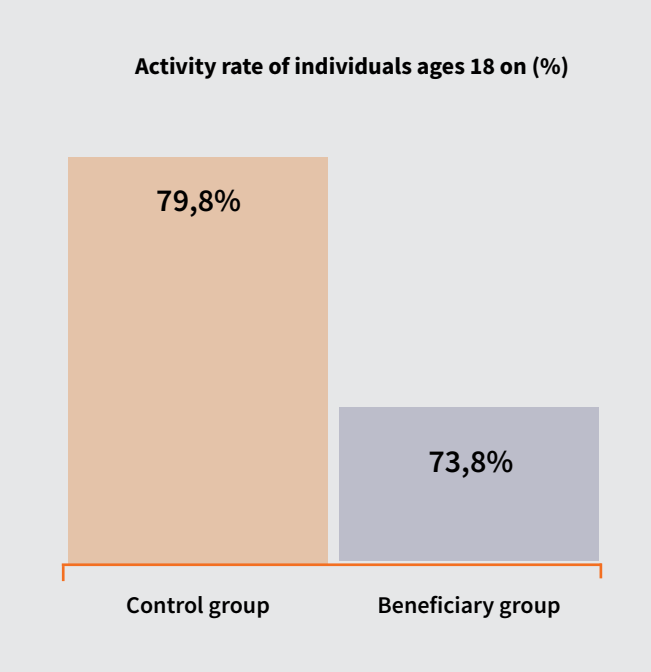
160. **The other positive impact of the FIAVOTA program is the decline in the early entry of children aged 5-17 into the labor market**. The incidence of child labor among beneficiary households is lower by 8 percent compared to that observed in control group households. The impact is particularly important for small households: for beneficiary households with less than 4 individuals, the incidence of child labor is 14 points lower than in the control group.

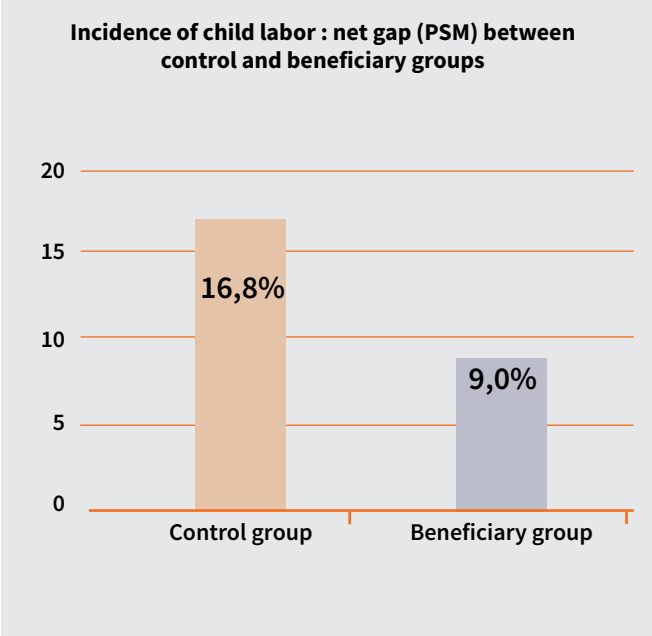
161. **Apart from these positive results, the FIAVOTA program did not have any significant effects on the multi-activity practice** even though a positive difference was observed between beneficiary households and control group households. Thus, **the creation of new family production units mentioned above account for the active who were unemployed or who worked as caregivers.** This situation is supported by the increase in the proportion of self-employed workers and the fall in the proportion of caregivers among all the active employed over the 2016-2018 period. Indeed, while in 2016, the self-employed accounted for less than 40 percent of the total active employed, they are 58 percent in 2018. However, the proportion of caregivers decreased from 46 percent in 2016 to less than 26 percent in 2018. These are mainly the women who experienced this change of status in their activities. This can be explained by the selection of women as direct recipients of funds.

162. **As for the integration into the labor market, the impact of the FIAVOTA program is generally mixed.** The activity rate is 5 points lower among the beneficiary households compared to those in the control group. However, it should be noted that this reduction is significant only for individuals in the age group between 18-29 years. However, for age groups of over 30 years, the results are not significant. For some categories of individuals, the decline in the activity rate among beneficiary households is fairly low (around one point) even though they are statistically significant, as is the case for women heads of households. These results could be explained by the lack of employment opportunities in the intervention areas and by the redistribution of tasks within the household as a result of the improved financial situation and the decrease of budgetary constraints in beneficiary households.

Figure 16 : Net impact of the FIAVOTA program on employment and economic activities (PSM gap)







Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 42 : Impact of the FIAVOTA program on employment and economic activities

Indicators	Activity rate (%)	Proportion of employed persons in agriculture (%)	Proportion of individuals who created a production unit in the last 12 months (%)	Proportion of employed persons who reported that incomes increased (%)	Proportion of individuals practicing multiactivity (%)	Incidence of child labor (%)
Overall	-4.7	4.8	11.8	10.6	-0.3	-7.8
SEX						
Male	-6.9	4.5	7.4	10.0	0.9	-7.5
Female	-2.3	7.8	15.3	11.5	1.0	-6.1
AGE						
18-29 years	-8.2	4.7	11.2	9.1	0.2	
30-49 years	-1.0	4.7	12.4	14.2	3.7	
50 years and over	0.1	1.3	11.5	11.1	3.3	
Rank in the household						
Head of household	-1.9	1.8	11.3	14.2	3.1	
Member of the household	-5.7	9.3	12.2	7.6	-1.3	
SOCIAL PROTECTION						
Support other than FIAVOTA	-5.5	3.3	9.5	11.3	-4.0	-8.0
No other support than FIAVOTA	-5.9	4.1	14.7	9.8	8.6	-5.8
HOUSEHOLD SIZE						
1 to 3 individuals	-9.5	-2.3	17.8	12.2	5.0	-14.1
4 to 6 individuals	-4.0	3.7	11.4	10.5	0.9	-5.6
More than 7 people	-4.1	11.7	11.3	9.9	0.7	-6.5
NUMBER OF CHILDREN UNDER 5						
1 child	-5.3	2.4	14.0	11.4	0.8	-12.8
2 children	-4.1	6.4	12.1	11.7	0.3	-5.9
3 children and more	-6.7	5.2	12.5	9.1	0.3	-6.3
GENDER OF THE HEAD OF HOUSEHOLD						
Male	-1.6	4.9	11.2	9.3	0.3	-6.1
Female	-14.9	0.9	16.9	11.9	1.9	-14.3
EDUCATION LEVEL OF THE HOUSEHOLD HEAD						
No education	-5.4	6.9	11.6	9.2	1.8	-6.8
Primary	-5.3	6.4	10.7	12.1	-0.9	-8.9
Secondary-University	-6.4	8.2	15.5	15.7	1.7	-6.8

Notes: in italics means not significant

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 43: Changes in the employment structure by employment status

Unit: %

Employment status	Year 2016				Year 2018			
	Salaried	Self employed	Family caregiver	Total	Salaried	Self employed	Family caregiver	Total
OVERALL								
Baseline FIAVOTA	14.2	39.5	46.3	100.0	16.9	57.6	25.5	100.0
ENSOMD2012	12.6	49.0	38.4	100.0				
ENEMPSI2012	11.0	43.1	45.9	100.0				
GENDER								
Male	16.3	46.7	37.1	100.0	21.0	56.1	22.9	100.0
Female	12.2	32.4	55.4	100.0	12.9	59.0	28.1	100.0
AGE								
5 to 9 years	3.5	0.0	96.5	100.0	4.9	7.8	87.4	100.0
10 to 17 years	8.2	3.7	88.1	100.0	13.6	16.5	70.0	100.0
18 to 29 years	15.8	36.3	47.9	100.0	18.4	51.7	30.0	100.0
30 to 49 years	18.5	59.1	22.4	100.0	17.7	70.4	11.9	100.0
50 years and over	14.3	72.9	12.8	100.0	15.9	75.7	8.4	100.0
LEVEL OF MALNUTRITION								
Urgent	13.5	42.9	43.6	100.0	12.1	59.0	29.0	100.0
Warning	13.8	37.2	48.9	100.0	14.9	63.6	21.4	100.0
Requires monitoring	16.1	37.5	46.4	100.0	21.6	51.6	26.8	100.0
SOCIAL PROTECTION								
Cash transfers	14.5	40.2	45.2	100.0	16.6	54.4	29.0	100.0
Food rations	12.7	39.6	47.7	100.0	14.1	61.6	24.4	100.0
Other support	17.3	32.5	50.2	100.0	22.9	45.8	31.3	100.0
No support	16.3	39.6	44.2	100.0	19.7	55.2	25.1	100.0
PRESENCE OF ACN OR AC IN HOUSEHOLD								
Household without an ACN	13.4	40.1	46.5	100.0	16.2	58.6	25.2	100.0
Household with an ACN	22.7	33.0	44.3	100.0	23.6	47.4	29.0	100.0
TYPE OF HOUSEHOLD								
Male single parent	15.8	48.5	35.7	100.0	11.7	64.9	23.3	100.0
Female single parent	18.1	41.8	40.1	100.0	17.6	60.8	21.6	100.0
Extended or polygamous	10.5	39.1	50.4	100.0	15.7	58.2	26.2	100.0
Nuclear	13.5	38.5	48.0	100.0	17.0	56.3	26.8	100.0
HOUSEHOLD SIZE								
1 to 3 individuals	20.4	59.6	20.0	100.0	15.5	69.2	15.3	100.0
4 to 6 individuals	15.3	47.9	36.8	100.0	14.9	63.9	21.2	100.0

Employment status	Year 2016				Year 2018			
	Salaried	Self employed	Family caregiver	Total	Salaried	Self employed	Family caregiver	Total
7 to 10 individuals	12.8	33.9	53.3	100.0	18.1	52.9	29.0	100.0
More than 10 individuals	12.1	25.6	62.3	100.0	19.5	46.6	33.9	100.0
NUMBER OF CHILDREN UNDER 5 YEARS								
1 child	20.9	35.1	44.0	100.0	19.8	57.5	22.7	100.0
2 children	15.4	40.8	43.8	100.0	15.2	58.2	26.6	100.0
3 children and more	14.0	39.6	46.4	100.0	16.1	56.2	27.7	100.0
AGE OF THE HEAD OF HOUSEHOLD								
Under 29 years	17.9	52.3	29.8	100.0	15.0	66.6	18.4	100.0
30 to 44 years	14.6	38.9	46.6	100.0	16.9	56.4	26.8	100.0
45 to 59 years	14.5	33.9	51.7	100.0	19.6	54.2	26.2	100.0
60 years and over	8.9	37.4	53.7	100.0	14.4	55.7	29.9	100.0
GENDER OF THE HEAD OF HOUSEHOLD								
Male	13.2	38.8	48.0	100.0	16.8	56.7	26.5	100.0
Female	17.6	41.8	40.6	100.0	17.2	60.8	22.0	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD								
No education	12.0	40.0	48.1	100.0	13.3	58.4	28.4	100.0
Primary	14.4	41.4	44.2	100.0	15.9	61.1	23.0	100.0
Sub-university	24.4	33.8	41.7	100.0	31.7	48.9	19.5	100.0
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD								
Agriculture, Livestock, Fishing	9.3	41.7	49.0	100.0	12.0	60.7	27.3	100.0
Processing, extractive industry	38.8	29.7	31.5	100.0	35.4	39.0	25.7	100.0
Trade	14.1	51.8	34.2	100.0	19.7	60.0	20.3	100.0
Administration	53.0	11.6	35.4	100.0	41.9	37.6	20.6	100.0
Other services	49.2	25.0	25.8	100.0	41.0	41.4	17.6	100.0
RESIDENCE SETTING								
District capital	21.7	37.1	41.2	100.0	11.2	58.1	30.6	100.0
Commune capital	13.3	42.0	44.7	100.0	34.1	45.0	20.9	100.0
Fokontany	12.9	39.5	47.6	100.0	12.3	61.3	26.5	100.0
SOURCE OF DRINKING WATER								
JIRAMA	26.7	37.3	36.0	100.0	29.9	50.1	20.0	100.0
Tank Dam	14.6	37.5	48.0	100.0	17.5	54.5	28.0	100.0
Any	12.9	40.2	46.9	100.0	14.3	60.1	25.6	100.0

Employment status	Year 2016				Year 2018			
	Salaried	Self employed	Family caregiver	Total	Salaried	Self employed	Family caregiver	Total
DISTANCE TO THE SITE								
Less than 15 minutes	15.0	39.0	46.0	100.0	17.0	55.5	27.5	100.0
15 min to 1 hour	13.9	38.9	47.2	100.0	17.7	60.7	21.6	100.0
More than an hour	10.2	43.9	45.9	100.0	14.1	65.5	20.5	100.0
NUMBER OF HEALTH FACILITIES								
No health facility	14.9	39.8	45.4	100.0	16.1	57.7	26.2	100.0
One health facility	12.1	40.1	47.8	100.0	13.4	61.8	24.8	100.0
2 health facilities	12.4	32.5	55.1	100.0	37.8	42.5	19.8	100.0
NUMBER OF PRIMARY SCHOOLS								
No school	15.4	39.9	44.7	100.0	14.6	59.6	25.9	100.0
One school	13.5	39.5	47.0	100.0	17.8	55.7	26.5	100.0
2 schools and more	12.2	38.0	49.8	100.0	13.2	68.9	17.9	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey-2016 baseline, authors' calculations

7.

CHAPITRE 7. AGRICULTURE AND LIVESTOCK

7.1. Summary

This section seeks to assess of the impact of the FIAVOTA program on agriculture and livestock production among beneficiary households. Since the current analysis is carried out after one year of program implementation, it can only capture immediate or very short-term effects. As a first step, the analysis describes the changes in the gross impact indicators of the program among beneficiary households by comparing the situation on agriculture and livestock production before and after a year of implementation of the program. In a second step, the net impact of the program on agriculture and livestock is assessed using the propensity score matching method.

The FIAVOTA program has a positive and significant impact, particularly on sheep and goat farming among beneficiary households. The percentage of beneficiary households engaged in this type of farming increased from 10 percent in 2016 to more than 87 percent in 2018. Compared to households in the control group, the difference is around 66 percent. In addition, the analysis indicated that the program has increased the net investment in sheep and goat farming by MGA 170,000 (USD 50): this amount is practically equivalent to the livelihood recovery of MGA 180,000 (USD 52) allocated to beneficiary households to help them restore their activities.

The analysis also showed positive impacts of the program, but of smaller magnitude, on other types of livestock farming. Regarding agriculture, the analysis shows that the program has positive impacts on a few indicators such as surface area cultivated and crop yield for some crops such as maize. However, on some indicators such as the proportion of farming households and the yields for other crops such as cassava or sweet potato, the results are either negative or insignificant.

7.2. Introduction

163. One of the medium and long-term objectives of the FIAVOTA program is to provide solutions to the chronic vulnerability and poverty of households by boosting local production and household income-generating activities. Apart from unconditional cash transfers, a livelihood recovery (Renivola Fiharia) is granted to beneficiary households to enable them to create, re-invest in the capital of and revive family production units, including agricultural activities or livestock.

164. In this section of the report, the main objective is to capture the impact of the FIAVOTA program on the agriculture and livestock farming activities of beneficiary households. Have cash transfers affected the creation of family production units in agriculture and livestock? If so, what types of crops or livestock? What are the impacts of the program on the economic performance of these activities: farm size, investment, agricultural yield, etc.?

165. Although the 2018 midline survey was not specifically designed to be a true agricultural survey, it allows for objective analyzes of a few key indicators pertaining to agriculture and livestock to help measure the impact of the FIAVOTA program on beneficiary households in these areas. The methodology used seeks to assess gaps between beneficiary households and control group households, using propensity score matching (PSM).

7.3. Context and methodology

166. The midline survey helps to understand the evolution and the impact of the FIAVOTA program on agriculture and livestock farming. Although the survey was not specifically designed to be an agricultural survey, the approach used, focusing on collecting information from households (and not from farms), helps to meet the needs of the analysis.

167. The impact of the FIAVOTA program on household's well-being is assessed using the propensity score matching (PSM) method. The impact indicators of the FIAVOTA program selected for agriculture and livestock are organized into three broad categories: indicators on engagement in agriculture and livestock (proportion of household engaged in agriculture, livestock farming, and both agriculture and livestock farming), indicators

on the structure of production in agriculture and livestock (proportion of farming households by type of crop, proportion of livestock farmers by type of livestock), performance indicators (investment, agricultural yield).

168. Since agriculture can be carried out as a secondary activity by any member of a household, "farming households", in the broadest sense, consists of households in which at least one member has actually farmed some lands or has carried out agricultural activities as a primary or as a secondary activity in the last 12 months. In this analysis, this definition is favored over the narrow definition limiting farming households to those households headed by individuals whose main employment is agriculture. Sometimes, the name "farmer" is no more than a "default" title even if the individual no longer has the opportunity to engage in any agricultural activity for various reasons, particularly related to climate problems or insecurity.

169. The same logic is used to define "livestock farming" households: any household with livestock (referring to the flow, but not stock) during the last 12 months preceding the interview.

170. The figures relating to flows (crops, sales, self-consumption, purchases) pertain to the last 12 months preceding the interview, but not the last crop year.

171. The farmed surface area is the "economic" area: an area is counted as many times as the number of production cycles completed and the number of crops grown during the last 12 months preceding the interview.

172. In the livestock sector, net investment in livestock is defined as the difference between the total amount of purchases and the amount of sales in the last 12 months preceding the interview.

7.4. Structure of activities in agriculture

173. **Beneficiary households now choose to focus on livestock farming activities.** In fact, in 2018, almost all (96 percent) beneficiary households owned livestock (cattle, pigs, sheep, goats, poultry). The dynamics are quite extraordinary since in 2016, less than 38 percent of these households were farmers. This large shift to livestock farming concerns all categories of household (urban or rural, with an ACN or not, male or female-headed, etc.). Regardless of the category of the household considered, the proportion of households practicing livestock exceeds 92 percent. This situation results from the initiative taken under the FIAVOTA program to allocate livelihood recovery (Renivola Fiharia) in order for families to re-invest in the capital of or revive their production units.

174. **On the other hand, overall, beneficiary households do not make special efforts to revive agricultural activities.** In 2018, agricultural households accounted for 58 percent of beneficiary households, i.e. one percent less than in 2016. It should be mentioned that the situation differs across regions. In the Androy region, the proportion of agricultural households among the beneficiary households of FIAVOTA has sharply dropped, namely by more than 4 points between 2016 and 2018. In contrast, in the Anosy region, it rose sharply from 47 percent in 2016 to more than 56 percent in 2018. In addition, contrary to what happens in urban areas, cases were noted in rural areas where households are gradually abandoning agricultural activities. In communes that are district capitals, the proportion of farming households increased by 10 points between 2016 and 2018. On the other hand, it is down by 10 points in rural communes. These results could be explained by regional specificities in terms of constraints related to access to arable land.

175. **Agricultural activities are developing mainly in households headed by an individual who is not a farmer.** Whether the head of the household works in industry, commerce, public administration or other service activities, the proportion of households engaged in agricultural activities increases significantly. That being said, among households headed by an individual who still considers himself/herself a "farmer", the proportion is sharply down. Among the explanations for this situation is the fact that agricultural activities in this region offer so little profitability and are highly dependent on several hazards (especially climate-related) and that they require other activities or sources of income to complement them. **In this sense, agricultural**

activities are carried out as a "secondary" activity by households.

176. **Beneficiary households increasingly practice a combination of agriculture activities with those of livestock farming.** While in 2016, less than a quarter of beneficiary households adopted this approach, they account for more than 37 percent of households in 2018. This further justifies the dependence of agricultural activities on other activities, and on this case, it is livestock farming. This is part of the risk minimization strategies adopted by households.

Table 44 : Changes in the proportion of agricultural households and livestock farming households among FIAVOTA beneficiary households

Unit: %

	Year 2016			Year 2018		
	Agricultural farming household	Livestock farming household	Agricultural and livestock farming	Agricultural farming household	Livestock farming household	Agricultural and livestock farming
Overall	59.4	37.1	24.6	58.5	96.0	38.7
REGION						
Androy	62.0	40.1	26.9	58.9	97.5	39.4
Anosy	47.3	23.1	13.9	56.8	88.8	35.6
LEVEL OF MALNUTRITION						
Urgent	66.6	37.7	29.6	66.5	94.4	30.2
Warning	60.3	30.4	19.5	45.6	97.1	52.2
Requires monitoring	53.8	42.8	25.9	65.0	96.0	32.1
SOCIAL PROTECTION						
Cash transfers	63.9	49.2	33.8	63.0	97.9	36.3
Food rations	63.5	37.5	26.0	57.2	96.4	40.2
Other support	53.6	63.2	31.4	66.2	95.1	29.9
No support	53.2	30.6	19.1	58.0	94.8	38.3
PRESENCE OF ACN OR AC IN HOUSEHOLD						
Household without an ACN	59.7	34.5	23.5	58.3	95.9	38.8
Household with an ACN	55.8	69.9	38.2	61.6	97.2	37.2
TYPE OF HOUSEHOLD						
Male single parent	70.8	15.1	8.2	59.7	97.0	37.2
Female single parent	51.3	20.8	12.3	51.8	96.0	45.3
Extended or polygamous	66.7	54.1	38.6	62.3	95.7	34.3
Nuclear	61.8	43.0	28.8	61.2	96.0	36.2
HOUSEHOLD SIZE						
1 to 3 individuals	57.6	31.3	23.1	55.0	95.2	42.9
4 to 6 individuals	60.7	34.4	23.3	58.2	95.4	38.5
7 to 10 individuals	59.0	38.2	23.6	61.6	96.5	35.6
More than 10 individuals	57.8	52.7	35.4	54.7	98.0	44.2

	Year 2016			Year 2018		
	Agricultural farming household	Livestock farming household	Agricultural and livestock farming	Agricultural farming household	Livestock farming household	Agricultural and livestock farming
NUMBER OF CHILDREN UNDER 5						
1 child	55.5	37.6	21.4	54.9	95.8	42.3
2 children	59.3	36.9	26.2	61.3	95.6	35.7
3 children and more	66.6	36.6	26.6	58.6	97.1	39.3
AGE OF THE HEAD OF HOUSEHOLD						
Under 29 years old	59.1	31.8	21.8	56.8	95.8	41.0
30 to 44 years old	58.5	35.8	23.8	60.5	95.7	36.0
45 to 59 years old	60.1	43.1	28.2	58.4	95.9	38.7
60 years old and over	61.1	39.5	25.5	56.5	97.3	41.9
GENDER OF THE HEAD OF HOUSEHOLD						
Male	62.7	43.8	29.6	61.2	96.0	36.0
Female	51.7	21.3	12.7	52.1	96.0	45.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD						
No education	63.1	32.1	23.3	60.0	96.1	37.4
Primary	56.2	38.7	24.9	59.9	95.4	36.4
Secondary-university	52.1	51.3	28.4	51.3	96.6	46.9
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD						
Agriculture, Livestock, Fishing	74.0	40.0	30.8	65.1	97.3	33.5
Processing, extractive industry	27.7	25.9	11.5	45.7	90.5	44.8
Trade	19.1	27.8	7.8	49.5	95.8	47.2
Administration	35.7	72.1	26.1	52.2	100.0	47.8
Other services	14.3	36.2	7.6	32.0	88.9	59.2
PLACE OF RESIDENCE						
District capital	43.4	51.8	24.9	73.3	96.7	24.1
Commune capital	42.7	30.1	15.3	32.6	92.7	61.8
Fokontany	65.8	38.0	27.4	65.2	96.9	32.8
SOURCE OF DRINKING WATER						
JIRAMA	40.1	33.9	18.6	47.5	92.1	46.2
Tank-Dam	49.9	37.0	18.7	64.6	97.8	34.1
None	66.4	37.7	27.8	58.4	96.0	39.0
DISTANCE TO THE SITE						
Less than 15 minutes	56.4	39.4	25.1	60.9	96.3	36.4
15 min to 1 hour	62.7	31.3	21.7	57.5	95.3	39.4
More than an hour	71.1	35.0	27.9	45.7	95.7	51.8

	Year 2016			Year 2018		
	Agricultural farming household	Livestock farming household	Agricultural and livestock farming	Agricultural farming household	Livestock farming household	Agricultural and livestock farming
NUMBER OF HEALTH FACILITIES						
No health facility	60.0	35.6	24.4	61.1	95.4	35.8
One health facility	59.5	39.0	24.5	56.4	96.7	41.3
2 health facilities	52.3	49.5	27.2	34.2	100.0	65.8
NUMBER OF PRIMARY SCHOOLS						
No school	58.1	32.2	23.1	66.5	94.6	30.6
One school	61.1	37.4	25.2	57.4	96.3	39.9
2 schools and more	49.7	40.9	22.2	56.3	95.5	40.6

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

7.5. Structure of livestock farming activities

177. Beneficiary households tend to opt for sheep, goat and poultry farming. In 2018, more than 87 percent of households owned sheep or goats and 70 percent had turkeys, ducks or chickens. At the end of 2016, due to large sales of livestock, less than 10 percent of households owned sheep and goats and 31 percent owned poultry. This type of livestock farming is more frequent in Androy than in Anosy, with 89 percent of households in Androy and 78 percent of households in Anosy. Regarding the other household categories, no significant difference is observed.

178. Cattle farming is also growing, but at a slower pace. In 2018, almost a quarter of beneficiary households owned cattle, cows or dairy cows, while the figure was barely 14 percent in 2016. Insecurity, cattle theft and insufficient funds can be the causes of this timid recovery of cattle farming. Indeed, in urban areas (such as in District capitals), more than 42 percent of beneficiary households practice cattle breeding compared to less than 26 percent in rural areas. As is the case for other types of livestock, cattle farming is fairly more common in the Androy region (27 percent of beneficiary households) than in the Anosy region (10 percent of beneficiary households). The situation is very different for households with an ACN where more than half have cattle, compared to 22 percent for households with no ACN. As can be expected, male-headed households are more interested in cattle breeding (29 percent of households). Less than 13 percent of female-headed households are engaged in this type of livestock farming. It is also interesting to note that cattle breeding is observed mostly in households headed by a civil servant with a proportion of more than 42 percent against less than 20 percent among other categories of households. **This type of farming requires fairly large investments and needs stable and regular income, such as income in the public sector for instance**.

Table 45: Changes in the proportion of households engaged in livestock farming by type of livestock

Unit : %

Type of livestock farming households	Year 2016					Year 2018				
	Livestock farming household	Cattle farming household	Pig farming household	Sheep and goat farming household	Poultry farming household	Livestock farming household	Cattle farming household	Pig farming household	Sheep and goat farming household	Poultry farming household
Overall	37.1	14.0	0.7	9.9	30.8	96.0	24.3	2.4	87.3	69,9
REGION										
Androy	40.1	15.2	0.5	10.9	33.7	97.5	27.3	2.3	89.3	71,5
Anosy	23.1	8.6	1.6	5.2	17.1	88.8	10.3	2.7	78.1	62,2
LEVEL OF MALNUTRITION										
Urgent	37.7	11.7	0.4	6.2	32.1	94.4	27.5	0.8	87.7	72,5
Warning	30.4	11.1	0.8	8.8	24.1	97.1	16.8	2.5	89.1	66,6
Requires monitoring	42.8	18.2	0.9	13.4	35.9	96.0	29.0	3.3	85.5	71,1
SOCIAL PROTECTION										
Cash transfers	49.2	20.1	0.7	14.2	39.9	97.9	26.8	1.8	86.6	79,8
Food rations	37.5	12.1	0.8	8.2	31.2	96.4	23.6	2.2	88.4	69,8
Other support	63.2	35.2	5.8	41.0	53.7	95.1	38.0	1.1	90.1	74,6
No support	30.6	12.8	0.4	8.5	25.6	94.8	23.4	2.9	86.2	66,1
PRESENCE OF ACN OR AC IN HOUSEHOLD										
Household without an ACN	34.5	12.3	0.6	8.4	28.4	95.9	22.2	2.3	87.1	68,5
Household with an ACN	69.9	36.0	2.4	29.5	60.9	97.2	51.7	3.7	90.4	87,2
TYPE OF HOUSEHOLD										
Male single parent	15.1	9.0	0.0	3.3	12.1	97.0	28.9	0.0	84.1	72,6
Female single parent	20.8	2.9	0.6	3.8	18.3	96.0	12.2	2.1	88.2	65,5
Extended or polygamous	54.1	31.2	0.3	21.2	39.6	95.7	33.3	1.0	90.4	72,5
Nuclear	43.0	16.9	0.9	11.3	36.0	96.0	28.6	2.8	86.5	71,5
HOUSEHOLD SIZE										
1 to 3 individuals	31.3	7.4	0.4	7.3	27.0	95.2	10.5	1.1	87.7	63,1
4 to 6 individuals	34.4	12.9	0.5	8.0	28.8	95.4	24.0	2.0	86.6	69,7
7 to 10 individuals	38.2	14.7	1.2	10.6	30.8	96.5	28.5	3.0	88.0	72,9
More than 10 individuals	52.7	26.0	0.5	19.6	44.8	98.0	30.8	3.5	87.7	70,1
NUMBER OF CHILDREN UNDER 5										
1 child	37.6	12.6	1.0	10.3	31.6	95.8	21.0	2.4	87.7	69,6
2 children	36.9	15.9	0.4	9.5	30.0	95.6	26.5	3.2	86.8	69,7
3 children and more	36.6	12.3	0.8	10.3	31.1	97.1	25.2	0.4	87.9	70,8
AGE OF THE HEAD OF HOUSEHOLD										
Under 29 years old	31.8	9.8	0.5	6.9	27.8	95.8	17.3	1.3	88.2	66,2
30 to 44 years old	35.8	12.4	1.0	9.7	30.0	95.7	25.8	3.2	85.8	71,0
45 to 59 years old	43.1	18.2	0.4	11.6	33.7	95.9	26.3	2.6	86.4	71,7

Type of livestock farming households	Year 2016					Year 2018				
	Livestock farming household	Cattle farming household	Pig farming household	Sheep and goat farming household	Poultry farming household	Livestock farming household	Cattle farming household	Pig farming household	Sheep and goat farming household	Poultry farming household
60 years old and over	39.5	18.5	0.9	12.8	33.0	97.3	29.5	1.6	91.5	70,3
GENDER OF THE HEAD OF HOUSEHOLD										
Male	43.8	18.6	0.7	12.5	35.9	96.0	29.3	2.3	86.9	71,6
Women	21.3	3.3	0.7	3.9	18.8	96.0	12.7	2.4	88.4	65,9
LEVEL OF EDUCATION OF HEAD OF HOUSEHOLD										
No education	32.1	11.7	0.0	7.5	26.2	96.1	24.3	1.5	89.5	68,6
Primary	38.7	15.2	1.1	12.5	30.9	95.4	23.8	2.5	86.2	70,1
Secondary-university	51.3	19.8	2.4	13.9	46.0	96.6	25.0	5.0	81.8	73,7
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD										
Agriculture, Livestock, Fishing	40.0	16.4	0.8	11.1	32.8	97.3	27.4	1.1	90.8	71,6
Processing, extractive industry	25.9	0.7	0.5	1.7	23.7	90.5	19.8	10.8	65.3	66,6
Trade	27.8	7.6	1.5	2.5	26.3	95.8	16.1	4.6	79.5	63,9
Administration	72.1	30.9	2.6	26.6	66.9	100.0	42.3	5.1	84.6	84,3
Other services	36.2	10.3	0.0	12.4	28.0	88.9	11.3	4.4	75.7	63,8
PLACE OF RESIDENCE										
District capital	51.8	25.2	0.0	5.7	43.3	96.7	42.4	5.2	77.2	80,4
Commune capital	30.1	10.1	0.3	8.6	23.8	92.7	13.0	4.0	76.5	65,4
Fokontany	38.0	14.3	0.9	10.7	31.9	96.9	26.3	1.6	91.5	70,4
SOURCE OF DRINKING WATER										
JIRAMA	33.9	17.2	1.4	15.2	27.8	92.1	20.9	7.3	72.6	68,2
Tank-Dam	37.0	15.1	0.2	9.1	27.6	97.8	28.7	1.7	91.6	72,9
None	37.7	13.1	0.8	9.2	32.5	96.0	23.4	1.7	88.5	69,1
DISTANCE TO THE SITE										
Less than 15 minutes	39.4	15.3	0.6	11.4	32.5	96.3	26.7	2.8	86.5	70,1
15 min to 1 hour	31.3	12.7	1.2	8.0	25.6	95.3	21.4	1.7	89.4	68,8
More than an hour	35.0	9.2	0.4	5.0	31.6	95.7	15.6	0.9	88.2	71,0
NUMBER OF HEALTH FACILITIES										
No health facility	35.6	13.3	0.2	9.1	30.0	95.4	23.0	2.8	85.1	69,2
One health facility	39.0	14.8	1.8	11.8	32.0	96.7	27.3	0.7	91.7	70,2
2 health facilities	49.5	20.6	3.2	13.7	36.7	100.0	29.5	3.2	99.7	77,2
NUMBER OF PRIMARY SCHOOLS										
No school	32.2	11.7	0.2	4.9	25.6	94.6	27.1	4.2	81.5	67,3
One school	37.4	14.7	0.5	10.3	31.3	96.3	24.1	1.7	88.3	70,4
2 schools and more	40.9	12.2	3.2	13.2	33.6	95.5	22.3	4.4	87.6	69,7

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

7.6. Performance of livestock farming activities

179. In addition to the overall increase in the number of livestock farming households between 2016 and 2018, **the size of farms has also increased, except in cattle farming, thanks in particular to the quite significant net investment10 in cattle** (purchases and less sales) by beneficiary households. As we saw earlier, in 2018, the majority of beneficiary households are engaged in sheep and goat farming. **Compared with 2016, the size of farms has increased from 0.7 unit11 in 2016 to more than 3 units in 2018.** The change is more or less consistent across regions and also depending on other household characteristics. However, it should be noted that sheep and goat farming has particularly developed among households with an ACN and households headed by civil servants: the average farm size is respectively 5.4 units and 4.7 units in 2018.

180. In this production sector, the average net investment in cattle (i.e., total purchases minus total sales) is estimated to be MGA 57,000 (USD 16) per beneficiary household. The amount of investment is more or less unchanged across all household categories considered.

181. **In the case of pig farming, the average farm size has increased from one unit to 2.7 units.** The increase in the size of the farm is very important in the Androy region, unlike in the Anosy region, where the size remained practically the same over the 2016-2018 period. In addition, it has been found that where the level of malnutrition is higher, the development of pig farming is lower. In fact, the average farm size is only 1.7 units in areas categorized as "Urgent", while in the "Warning" or "Requires monitoring monitor" zones, it reaches 2.7 units and 2.9 units respectively. Depending on the socioeconomic group of the head of household, the size of the pig farm is fairly large if the head of household is engaged in processing or trading activities. Regarding the gender of the head of household, no significant difference is observed in terms of the size of the pig farm.

182. In terms of investment, a pig farming household makes on average a net investment of MGA 123,000 (USD 36) in livestock over the past 12 months. The level of this type of investment is fairly high especially among households headed by individuals with no education, aged between 30-40 years old and engaged in processing activities. However, in households with an ACN, the level of investment is fairly low compared to households with no ACN.

183. **For poultry farming, the size of the farm increased from 1.7 units in 2016 to more than 5.8 units in 2018**. The size of the farm is consistent across the different categories of households. Unlike the other two types of livestock described above, the expansion of poultry farming is mainly the result of natural growth of the livestock (hatchlings) rather than direct investment (purchases). Indeed, the average investment in this type of farming is almost nil or even negative during the 2016-2018 period, in other words, in general, the total amount of purchases is less than the total amount from the sales of poultry. However, the situation differs per category of households. The investment is positive and quite significant among households in Anosy, located in the District capitals, headed by a woman with a high level of education, working mainly in the public sector or processing activities.

184. **Although the proportion of beneficiary households engaged in cattle breeding has increased between 2016 and 2018, the size of farm has significantly decreased from 5.1 units to less than 3.4 units.** The decline has been noted in both male-headed and female-headed households. On the other hand, it is more significant in the Androy region, in rural areas, in the zones categorized as "Urgent" and "Warning". This situation is caused by a massive withdrawal of investment (average net investment of –MGA 225,000 (-USD 66)). Two explanations are possible: either it is related to insecurity and cattle theft, or it results from a strategic change of focus of beneficiary households leading them to diversify or reallocate resources to short-cycle and fast-growing livestock farming, with less risks.

[10] The size of the farm does not only depend on investments in livestock, but also on natural changes (birth and death) and other flows (self-consumption, loss, transfers, etc.), especially for short and fast cycle livestock breeding such as poultry and sheep-goat farming.

[11] The average size of the farm may be less than one unit, since some livestock farming households in 2016, who did not possess any livestock in 2018 (i.e. zero farm size) are included in the analysis in order to enable a dynamic situation analysis

Table 46: Changes in the proportion of livestock farming households per type of livestock

	Average size of sheep and goat farm 2016 (number)	Average size of sheep and goat farm 2018 (number)	Net investment in sheep and goats in the last 12 months (MGA)	Average size of poultry farm 2016 (number)	Average size of poultry farm 2018 (number)	Net investment in poultry in the last 12 months (MGA)	Average size of pig farm 2016 (number)	Average size of pig farm 2018 (number)	Net investment in pigs in the last 12 months (MGA)	Average size of cattle farm 2016 (number)	Average size of cattle farm 2018 (number)	Net investment in cattle in the last 12 months (MGA)
Overall	0.7	3.0	57024	1.7	5.8	-52	0.9	2.7	122993	5.1	3.4	-225339
REGION												
Androy	0.7	3.0	54599	1.8	5.9	-1782	0.7	2.9	128742	5.0	3.2	-256488
Anosy	0.7	2.8	69935	0.9	5.1	9218	1.8	1.9	100609	6.3	5.1	160740
LEVEL OF MALNUTRITION												
Urgent	0.4	3.0	34262	1.4	5.9	-914	0.7	1.7	59892	4.8	2.6	-352596
Warning	0.5	2.6	73904	1.0	5.2	-2378	0.9	2.7	13223	4.7	2.1	-285792
Requires monitoring	1.1	3.3	54483	2.5	6.1	2204	1.0	2.9	208821	5.6	4.6	-110648
SOCIAL PROTECTION												
Cash transfers	1.1	3.0	67432	1.9	6.0	971	0.5	1.5	76659	8.0	5.2	50637
Food rations	0.5	2.9	62329	1.5	5.5	-3509	1.4	3.1	47157	4.3	2.8	-337255
Other support	2.1	3.7	48949	3.6	7.2	10739	3.8	1.0	87500	7.9	4.0	-359309
No support	0.7	3.0	45033	1.8	5.9	2789	0.2	2.7	203036	4.6	3.1	-187603
PRESENCE OF ACN OR AC IN HOUSEHOLD												
Household without an ACN	0.6	2.8	58886	1.6	5.6	-227	0.6	2.7	127682	5.2	3.2	-240183
Household with an ACN	1.7	5.4	23301	2.6	7.5	343	2.9	2.3	86029	4.8	4.2	-136265
HOUSEHOLD COMPOSITION												
Male single parent	0.2	2.9	73315	0.6	6.0	4504	0.0	0.0	0	5.5	2.9	-706593
Female single parent	0.2	2.5	61904	0.9	5.3	5222	0.7	2.5	105846	5.0	2.3	-59805

	Average size of sheep and goat farm 2016 (number)	Average size of sheep and goat farm 2018 (number)	Net investment in sheep and goats in the last 12 months (MGA)	Average size of poultry farm 2016 (number)	Average size of poultry farm 2018 (number)	Net investment in poultry in the last 12 months (MGA)	Average size of pig farm 2016 (number)	Average size of pig farm 2018 (number)	Net investment in pigs in the last 12 months (MGA)	Average size of cattle farm 2016 (number)	Average size of cattle farm 2018 (number)	Net investment in cattle in the last 12 months (MGA)
Extended or polygamous	1.5	3.5	61173	2.4	4.9	-1848	0.2	1.8	87500	5.1	3.4	-559474
Nuclear	0.8	3.1	52060	2.0	6.1	-2442	1.0	2.8	131498	5.1	3.6	-181044
HOUSEHOLD SIZE												
1 to 3 individuals	0.6	2.6	69448	1.2	5.1	-1113	1.2	1.2	34239	6.3	2.7	-44904
4 to 6 individuals	0.5	2.9	58774	1.4	5.5	592	0.6	2.3	107894	4.1	2.5	-227178
7 to 10 individuals	0.6	3.0	48066	1.5	6.0	57	1.3	3.6	193380	5.9	3.9	-148660
More than 10 individuals	1.8	3.8	54633	4.2	6.9	-3093	0.1	1.6	-11932	5.3	4.7	-542586
NUMBER OF CHILDREN UNDER 5 YEARS OLD												
1 child	0.7	3.1	64069	1.7	6.0	-136	1.7	2.9	70677	4.9	3.0	-149292
2 children	0.7	2.9	45981	1.8	5.7	-1112	0.4	2.7	158850	4.6	2.7	-333799
3 children and more	0.7	2.9	65480	1.5	5.3	1869	1.1	1.0	0	6.6	5.4	-69347
AGE OF THE HEAD OF HOUSEHOLD												
Under 29 years old	0.3	2.4	55457	1.3	5.3	890	0.5	1.3	85135	4.4	2.3	4128
30 to 44 years old	0.8	3.1	58935	1.7	6.0	369	1.2	3.4	176656	4.6	3.7	-52326
45 to 59 years old	0.7	3.2	45037	2.1	5.9	1490	0.4	2.8	60455	6.0	3.5	-605233
60 years old and over	0.8	3.1	68896	1.7	5.5	-6265	1.5	1.1	67709	5.6	3.2	-276011

	Average size of sheep and goat farm 2016 (number)	Average size of sheep and goat farm 2018 (number)	Net investment in sheep and goats in the last 12 months (MGA)	Average size of poultry farm 2016 (number)	Average size of poultry farm 2018 (number)	Net investment in poultry in the last 12 months (MGA)	Average size of pig farm 2016 (number)	Average size of pig farm 2018 (number)	Net investment in pigs in the last 12 months (MGA)	Average size of cattle farm 2016 (number)	Average size of cattle farm 2018 (number)	Net investment in cattle in the last 12 months (MGA)
GENDER OF THE HEAD OF HOUSEHOLD												
Male	0.9	3.2	54064	2.0	5.9	-2130	1.0	2.8	130252	5.2	3.5	-252154
Female	0.2	2.5	61210	0.9	5.2	4856	0.7	2.4	106273	4.8	2.3	-70000
LEVEL OF EDUCATION OF THE HEAD OF HOUSEHOLD												
No education	0.5	2.7	53215	1.4	5.3	-3570	0.0	2.9	229030	4.9	2.6	-268867
Primary	0.8	3.1	60872	1.3	5.8	1914	0.8	2.5	109698	5.6	4.8	-107219
Secondary-University	1.2	3.5	59118	3.3	7.1	7433	1.7	2.6	27922	4.8	3.6	-261874
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD												
Agriculture, Livestock, Fishing	0.7	3.1	53544	1.8	5.7	-2762	1.9	2.5	63805	5.3	3.3	-230443
Processing, extractive industry	0.3	2.6	77250	0.9	6.0	18290	0.2	4.0	350000	4.3	7.6	32493
Trade	0.1	2.3	61668	1.7	5.2	6092	0.6	4.0	116053	1.6	2.2	415663
Administration	1.4	4.7	68339	3.0	7.7	16706	1.0	1.0	0	4.8	3.8	3125
Other services	0.8	2.7	62062	1.8	6.6	8049	0.0	2.2	154569	3.3	2.4	-144743
PLACE OF RESIDENCE												
District capital	0.2	3.6	61183	2.2	6.5	11799	0.0	2.8	153125	2.9	2.8	44569
Commune capital	0.9	2.5	56646	2.0	5.7	1742	0.2	2.6	55056	4.1	2.5	-188741
Fokontany	0.6	3.0	55766	1.6	5.7	-1825	1.5	2.8	165172	5.5	3.5	-264389

	Average size of sheep and goat farm 2016 (number)	Average size of sheep and goat farm 2018 (number)	Net investment in sheep and goats in the last 12 months (MGA)	Average size of poultry farm 2016 (number)	Average size of poultry farm 2018 (number)	Net investment in poultry in the last 12 months (MGA)	Average size of pig farm 2016 (number)	Average size of pig farm 2018 (number)	Net investment in pigs in the last 12 months (MGA)	Average size of cattle farm 2016 (number)	Average size of cattle farm 2018 (number)	Net investment in cattle in the last 12 months (MGA)
SOURCE OF DRINKING WATER												
JIRAMA	1.5	4.2	61083	1.5	5.6	2085	0.6	2.6	55056	10.3	7.2	-586143
Tank - Dam	0.7	2.7	44049	2.0	6.6	4199	0.2	2.6	158287	4.2	2.9	-125810
None	0.5	2.9	59965	1.7	5.4	-2226	1.3	2.9	164328	4.7	2.9	-207643
DISTANCE TO THE SITE												
Less than 15 minutes	0.8	3.1	53610	1.9	6.0	-229	0.7	2.8	137392	5.1	3.4	-205524
15 min to 1 hour	0.5	3.0	69986	1.5	5.5	8154	2.0	2.3	83702	4.6	3.5	-235413
More than an hour	0.3	2.2	41991	1.0	4.7	-17465	0.3	1.5	0	6.5	2.0	-391357
NUMBER OF HEALTH CENTERS												
No health facility	0.6	2.8	64298	1.5	5.4	730	0.2	2.7	138630	5.1	3.5	-36227
One health facility	0.7	3.4	30183	1.8	6.4	-761	2.9	2.0	-133333	5.1	2.6	-785057
2 health facilities	1.3	3.0	54753	4.0	7.2	-8520	3.3	3.7	145833	5.2	4.2	-219744
NUMBER OF PRIMARY SCHOOLS												
No school	0.4	2.7	61318	1.2	5.2	5372	0.1	3.6	297568	4.5	2.6	-306723
One school	0.7	2.9	56320	1.9	5.8	-963	0.8	2.4	72355	5.2	3.5	-170412
2 schools and more	0.6	3.6	49514	1.4	5.8	-1303	1.7	2.3	52281	5.3	2.9	-504813

Note: Negative net investment indicates sales are greater than purchases in the last 12 months

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

7.7. Structure of agricultural activities

185. **As regards staple foods cultivation, beneficiary households primarily grow cassava and maize.** More than 82 percent of them grow cassava and 67 percent maize. In contrast, sweet potato and rice crops are fairly rare and concern 31 percent and 8 percent respectively of beneficiary households. The types of crop are quite different depending on the region, with more sweet potato farming and less cassava cultivation in Anosy compared to Androy. Rice growing is fairly common in areas categorized as "Requires monitoring". Nevertheless, this does not exceed 15 percent of beneficiary households. The socioeconomic group of the head of household has a significant influence on the types of crops cultivated. Households headed by an individual engaging in trade activities grow cassava less frequently, and those headed by civil servants grow a lot of maize.

186. **The type of agriculture practiced by beneficiary households is carried out on a fairly small scale and has very low profitability.** The average economic area[12] farmed per household for food crops[13] is 0.7 ha. The size of farms is still very small in Anosy at 0.2 ha while it is 0.8 ha in Androy. These figures are well below the size of farms in the Androy region (2.7 ha) and Anosy (2.1 ha) [14]. Areas farmed are less extensive in urban areas (0.5 ha). It should be mentioned that households of civil servants are farming the largest surface areas with an average of 1.6 ha. This further reinforces the idea that the profitability of agriculture is so low that it must be complemented with other activities or sources of income.

187. **The assessment of the quantity of harvested production shows both the low coverage of daily food requirements and the low profitability of the type of agriculture practiced.** The quantity of crops, all products combined, is on average estimated at 645 kg per household. With an average size of 6.7 people, it is estimated that only 263 grams/day/person is the quantity harvested and available among beneficiary households. Regarding agricultural yield, the average yield is estimated at less than one metric ton per hectare. This is much lower than the yield observed at the national level at 0.5 metric tons/ha for maize, 1.2 metric tons/ha for cassava and 1.1 metric tons/ha for sweet potatoes. Nevertheless, we can note the fairly high yield of agriculture in urban areas, estimated at more than 3 metric tons/ha.

188. In general, beneficiary households try to diversify agricultural production. More than half of them grow more than three crops. The same practices are adopted regardless of the category of households considered.

[12] Regarding the economic area: area counted as many times as the number of crops grown.
[13] The area dedicated to export or industrial crops is very small: barely 100 m^2 per household.
[14] According to the results of the 2012 ENSOMD survey

Table 47: Characteristics of agricultural production practiced by beneficiary households

	Rice cultivation	Cassava cultivation	Maize cultivation	Sweet potato cultivation	Average area cultivated with food crops (m^2)	Average food production (kg)	Single crop (%)	Two crops (%)	Three crops and more (%)
Overall	7.8	82.2	67.3	31.3	7056.9	645.2	22.7	23.6	53.7
REGION									
Androy	8.8	84.6	68.0	28.6	8080.5	661.5	22.5	22.7	54.8
Anosy	2.9	70.4	63.6	44.5	2106.2	566.4	23.6	28.1	48.3
LEVEL OF MALNUTRITION									
Urgent	0.3	86.1	67.0	38.5	7878.9	763.8	22.7	23.6	53.7
Warning	6.3	80.8	67.4	41.1	6342.5	358.0	27.1	15.3	57.7
Requires monitoring	13.8	80.3	67.4	20.1	6952.6	747.3	20.0	29.0	51.0
SOCIAL PROTECTION									
Cash transfers	14.8	81.0	67.4	31.7	6625.7	654.9	20.8	20.7	58.5
Food rations	4.3	82.2	66.5	35.9	7303.3	619.3	23.1	25.8	51.1
Other support	0.0	83.6	76.8	10.3	10335.5	931.5	13.3	23.0	63.6
No support	9.7	82.5	67.6	27.1	6706.4	652.0	23.7	22.3	54.1
PRESENCE OF ACN OR AC IN HOUSEHOLD									
Household without an ACN	7.8	81.7	65.9	31.6	6972.9	607.8	23.6	23.9	52.4
Household with an ACN	7.8	87.8	83.6	27.8	8068.6	1095.8	11.7	20.0	68.3
HOUSEHOLD COMPOSITION									
Male single parent	8.4	90.8	77.1	34.1	11449.6	2139.6	19.6	20.6	59.8
Female single parent	4.6	79.3	61.6	31.7	4795.8	444.0	26.4	24.7	48.9
Extended or polygamous	4.7	81.8	63.5	35.0	8365.7	511.2	28.2	24.2	47.6
Nuclear	9.6	83.2	69.9	30.4	7638.2	703.0	20.4	23.2	56.4
HOUSEHOLD SIZE									
1 to 3 individuals	5.8	82.9	65.9	30.1	6138.2	508.5	25.3	23.8	50.8
4 to 6 individuals	7.1	81.8	66.1	29.9	6111.0	476.8	24.2	26.3	49.5
7 to 10 individuals	8.8	83.7	69.5	33.5	8135.8	818.2	19.0	21.7	59.3
More than 10 individuals	9.6	77.1	66.4	30.6	8459.7	929.4	26.5	19.1	54.4
NUMBER OF CHILDREN UNDER 5 YEARS OLD									
1 child	6.2	81.3	70.1	33.8	7554.4	754.5	19.0	25.0	56.0
2 children	8.9	83.7	64.6	28.1	6651.3	583.8	25.0	24.9	50.0
3 children and more	7.8	80.1	69.1	34.7	7205.3	611.2	23.3	18.3	58.4

	Rice cultivation	Cassava cultivation	Maize cultivation	Sweet potato cultivation	Average area cultivated with food crops (m^2)	Average food production (kg)	Single crop (%)	Two crops (%)	Three crops and more (%)
AGE OF THE HEAD OF HOUSEHOLD									
Under 29 years old	7.5	87.0	67.3	30.1	5261.7	607.6	25.1	19.3	55.6
30 to 44 years old	9.3	76.1	69.0	32.1	7001.8	541.0	20.2	27.5	52.3
45 to 59 years old	7.5	86.0	63.7	31.9	7770.7	739.7	25.3	20.6	54.1
60 years old and over	4.5	84.2	68.8	30.2	9104.7	838.0	21.0	25.6	53.4
GENDER OF THE HEAD OF HOUSEHOLD									
Male	9.0	83.1	69.2	31.0	7879.7	717.4	21.4	23.4	55.1
Female	4.4	79.7	62.0	32.2	4783.3	445.6	26.2	24.2	49.6
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD									
No education	6.6	82.9	64.3	33.5	6751.5	659.5	25.6	23.4	51.0
Primary	11.3	81.0	68.0	28.8	7051.6	638.1	19.0	23.0	58.0
Secondary-University	5.5	81.6	77.7	27.2	8275.2	602.4	18.5	25.7	55.7
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD									
Agriculture, Livestock, Fishing	8.8	84.6	68.2	31.5	7410.2	683.0	20.5	23.3	56.2
Processing, extractive industry	1.5	85.3	68.7	18.7	3512.8	639.4	21.6	44.2	34.1
Trade	0.0	46.6	57.2	37.5	3353.8	426.5	48.5	19.4	32.0
Administration	3.2	71.2	92.7	39.9	16562.5	989.5	14.2	25.0	60.8
Other services	3.8	77.4	58.5	33.3	6581.0	430.7	31.3	20.3	48.4
PLACE OF RESIDENCE									
District capital	0.0	96.6	82.3	20.9	4714.9	1252.9	15.9	30.5	53.6
Commune capital	5.6	71.7	56.5	31.5	5073.5	450.2	35.5	22.6	41.9
Fokontany	8.8	82.5	67.5	32.2	7573.3	619.2	21.4	23.2	55.4
SOURCE OF DRINKING WATER									
JIRAMA	17.1	82.4	67.8	17.6	9172.5	562.5	18.9	25.4	55.7
Tank - Dam	13.4	84.5	64.3	36.2	5758.8	788.9	23.3	25.4	51.3
None	4.1	81.2	68.4	31.4	7253.4	600.5	23.1	22.7	54.3
DISTANCE TO THE SITE									
Less than 15 minutes	10.5	82.0	65.8	27.6	7498.1	671.8	22.4	26.1	51.5
15 min to 1 hour	2.2	81.6	71.7	38.5	5809.8	620.9	24.3	17.8	57.9
More than an hour	0.0	85.7	67.5	42.4	6773.2	487.7	21.2	18.9	59.9

	Rice cultivation	Cassava cultivation	Maize cultivation	Sweet potato cultivation	Average area cultivated with food crops (m^2)	Average food production (kg)	Single crop (%)	Two crops (%)	Three crops and more (%)
NUMBER OF HEALTH FACILITIES									
No health facility	9.9	81.9	67.4	30.5	6033.8	643.7	22.1	24.7	53.2
One health facility	1.1	84.8	65.4	34.5	10694.0	584.1	25.3	20.8	54.0
2 health facilities	0.0	72.3	75.2	30.8	8498.7	1032.9	20.7	16.7	62.6
NUMBER OF PRIMARY SCHOOLS									
No school	3.1	87.8	65.6	32.7	5164.5	700.4	22.1	32.2	45.8
One school	9.3	81.8	67.3	30.7	7168.0	633.4	23.6	22.0	54.3
2 schools and more	4.1	76.8	69.2	33.5	9052.1	647.0	17.1	22.4	60.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

7.8. Performance of agricultural activities

189. **Much of the agricultural production is for households' own consumption.** The percentage of self-consumption is 81 percent, and only 15 percent is intended for the market to generate cash income. This structure of production use is very different from what is observed for all farming households in the Androy and Anosy regions: self-consumption accounted for less than 60 percent[15] of total production.

190. In 2018, sales of agricultural produce averaged MGA 68,300 (USD 20) per farming household. Thus, the agricultural income in the broad sense (valuation of the whole production in proportion to the percentage of production sold) is estimated at MGA 447,500 (USD 131) per year, with MGA 478,800 (USD 140) for Androy and MGA 307,800 (USD 90) for Anosy. These figures are far below those observed for all households in both regions, which are respectively MGA 559,000 (USD 164) per household in Androy and MGA 1,073,000 (USD 312) per household in Anosy. [16]

[15] According to the results of the 2012 ENSOMD survey
[16] According to the results of the 2012 ENSOMD survey

Table 48 : Earnings from farming activities in 2018

	Percentage consumed (%)	Percentage used as Seed (%)	Percentage sold (%)	Average amount of sales (MGA)	Average amount of farming income (MGA)
Overall	81.0	3.2	15.3	68,303	447,533
REGION					
Androy	81.2	3.4	15.1	72,165	478,835
Anosy	79.9	2.2	16.1	49,623	307,810
LEVEL OF MALNUTRITION					
Urgent	85.5	2.4	11.5	46,144	402,285
Warning	82.4	3.1	13.5	37,933	282,013
Requires monitoring	77.3	3.7	18.7	102,705	548,678
SOCIAL PROTECTION					
Cash transfers	79.0	3.9	16.5	92,338	558,079
Food rations	82.8	3.1	13.6	56,690	415,836
Other support	80.3	4.1	15.6	82,830	531,329
No support	79.7	2.9	16.6	71,540	429,737
PRESENCE OF ACN OR AC IN HOUSEHOLD					
Household non ACN	81.0	3.2	15.2	65,130	428,699
Household with an ACN	80.5	3.5	16.1	106,517	663,417
TYPE OF HOUSEHOLD					
Male single parent	86.3	4.8	6.4	77,843	1,212,717
Female single parent	83.5	3.0	13.1	38,875	297,699
Extended or polygamous	80.4	3.8	15.8	87,297	552,862
Nuclear	79.8	3.1	16.4	77,041	470,319
HOUSEHOLD SIZE					
1 to 3 individuals	84.4	3.0	11.8	49,076	415,024
4 to 6 individuals	79.0	3.6	17.2	55,157	321,608
7 to 10 individuals	81.9	3.0	14.1	77,400	547,411
More than 10 individuals	81.4	2.2	16.2	119,811	741,773
NUMBER OF CHILDREN UNDER 5 YEARS OLD					
1 child	79.0	3.9	16.2	59,881	370,143
2 children	81.6	2.7	15.2	71,768	470,838
3 children and more	82.9	3.1	13.7	73,955	540,040
AGE OF THE HEAD OF HOUSEHOLD					
Under 29 years old	78.9	3.0	17.6	61,320	348,271
30 to 44 years old	79.9	3.7	15.4	65,227	423,223
45 to 59 years old	83.0	3.0	13.7	95,618	698,976
60 years old and over	83.9	2.5	13.6	40,936	301,433

	Percentage consumed (%)	Percentage used as Seed (%)	Percentage sold (%)	Average amount of sales (MGA)	Average amount of farming income (MGA)
GENDER OF THE HEAD OF HOUSEHOLD					
Male	80.0	3.3	16.0	78,949	492,037
Female	83.5	3.0	13.2	38,885	295,463
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD					
No education	83.4	3.3	12.8	48,998	383,094
Primary	79.8	3.2	16.2	81,498	503,142
Secondary-University	74.3	2.9	22.7	118,883	523,916
BRANCH OF ACTIVITY OF THE HEAD OF HOUSEHOLD					
Agriculture, Livestock, Fishing	80.3	3.1	16.2	77,772	479,371
Processing, extractive industry	89.8	2.6	7.6	21,343	280,408
Trade	83.1	4.1	12.8	30,279	236,906
Administration	75.4	2.0	22.6	124,889	553,560
Other services	80.4	2.8	13.7	28,288	206,082
PLACE OF RESIDENCE					
District capital	77.1	3.3	19.5	61,342	314,128
Commune capital	82.4	2.2	14.4	22,927	159,483
Fokontany	81.1	3.3	15.0	75,850	506,167
SOURCE OF DRINKING WATER					
JIRAMA	78.9	3.5	17.6	107,381	610,771
Tank-Dam	81.1	2.6	15.6	74,607	478,283
None	81.3	3.4	14.8	59,898	406,033
DISTANCE TO THE SITE					
Less than 15 minutes	79.6	3.5	16.5	81,638	495,108
15 min to 1 hour	83.7	2.4	13.1	42,803	327,993
More than an hour	86.3	2.7	10.0	26,301	262,222
NUMBER OF HEALTH FACILITIES					
No health facility	81.0	3.2	15.5	63,775	410,951
One health facility	81.3	3.5	13.9	81,904	587,591
2 health facilities	79.5	1.7	17.2	89249	517,646
NUMBER OF PRIMARY SCHOOLS					
No school	86.0	1.9	11.3	54,180	480,245
One school	80.4	3.5	15.6	64,193	411,520
2 schools and more	76.9	3.2	19.2	118,021	615,255

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

7.9. Net impact of the FIAVOTA program on agriculture

191. The impact of the FIAVOTA program on the agricultural and livestock activities of the beneficiary households is captured by the positive differences in the different result indicators between the beneficiary households and the control group households matched according to the propensity score. The indicators selected for agriculture and livestock can be classified in four broad categories: indicators of engagement in agriculture and livestock farming (proportion of farming households, proportion of livestock farming households, proportion of farming and livestock farming households), indicators on the type of activities (proportion of households engaged in cattle, pig, sheep and goat and poultry farming, proportions of households engaged in rice, cassava, maize and sweet potato cultivation), performance indicators (investment, surface area, yield).

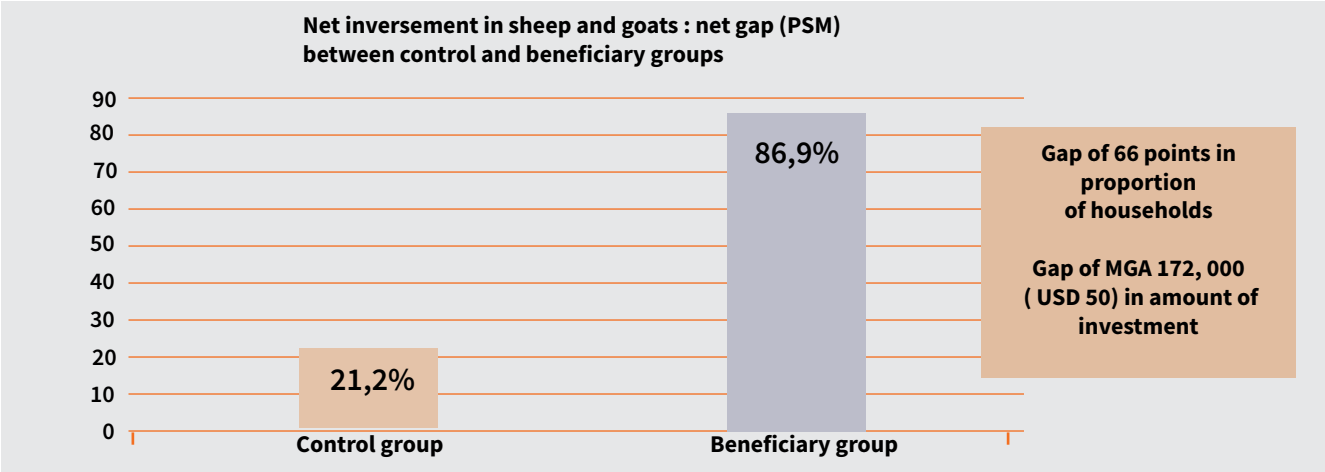
192. **The FIAVOTA program has positive and significant impacts, particularly on livestock farming. However, the impact on agricultural activities is fairly small and not significant.** This result is predictable as this mid-term impact assessment can capture only very short-term effects. Taking into account structural problems such as access to land, high dependence on climate, remoteness and inadequate technical infrastructure (irrigation, fertilizer or pesticide suppliers, etc.), the low market development, the impact of the program on agriculture takes much longer (medium or long term) to come out. This is not the case for some indicators on livestock (type of livestock, investment).

193. **The FIAVOTA program helped beneficiary households to launch or revive livestock units.** The proportion of livestock farming households is more than 45 percent compared to control group households. Despite the fact that the proportion of farming households among beneficiary households does not differ significantly from the control group households, the proportion of households combining both agriculture and livestock farming increases by 22 percent. These results show that, in order to minimize risks, given the unfavorable weather conditions in agriculture and other natural hazards, households try to complement agricultural activities with other activities, including livestock farming.

194. **The impact of the FIAVOTA program is very tangible, especially on sheep and goat farming.** The program has contributed to an increase by nearly 67 percent of the proportion of households engaged in this type of farming. In the last 12 months preceding the survey, the net investment in sheep and goat farming (purchases minus sales of sheep or goats) made by these beneficiary households is estimated at MGA 172,000 (USD 50). This amount corresponds practically to the total of the livelihood recovery that amounts to MGA 180,000 (USD 52) granted to beneficiary households by the FIAVOTA program between May 2017 and April 2018 to help households recapitalize and restart their income-generating activities. These results highlight the effectiveness of the system put in place for the implementation and monitoring of the program. For the other types of livestock, the impact is there, but it is fairly small: 24 percent increase in the proportion of poultry farming households with an average net investment of MGA 17,000 (USD 5). Beneficiary households are progressively moving away from cattle farming which has a long cycle and proves to be too risky due to insecurity.

195. **The impact on agriculture is overall positive and significant, but to a lesser extent.** The total cultivated area increased by 0.44 acre per beneficiary household. The choice of crops cultivated by beneficiary households has shifted to sweet potato instead of other staple foods such as maize or cassava. In terms of productivity or crop yield, a slight increase in the yield for maize production of about 0.4 metric tons/ha is recorded. As mentioned above, the results of this mid-term evaluation can capture only the very short-term effects, but not the medium and long-term impacts, most of which are indicators pertaining to agricultural activities.

Figure 17: Net impact of the FIAVOTA program on agriculture (PSM gap)



Sources : MPPSPF – FID – ONN/UPNNC - Banque Mondiale-UNICEF/Enquête FIAVOTA midline 2018, calculs des auteurs.

Table 49: Impact of the FIAVOTA program on agricultural and livestock farming activities

Indicator	Beneficiary-Control gap	Sig
ENGAGEMENT IN AGRICULTURE OR LIVESTOCK		
Proportion of farming households (%)	-1,074017	ns
Proportion of livestock farming households (%)	44,61604	***
Proportion of households engaged in both agriculture and livestock farming (%)	22,30092	***
TYPE OF LIVESTOCK FARMING		
Proportion of households engaged in cattle farming (%)	5,107134	***
Proportion of households engaged in pig farming (%)	1,628588	***
Proportion of households engaged in sheep and goat farming (%)	66,86725	***
Proportion of households engaged in poultry farming (%)	24,19908	***
INVESTMENT IN LIVESTOCK		
Net investment in cattle (MGA)	-64942,89	ns
Net investment in pig (MGA)	-	ns
Net investment in sheep and goat (MGA)	171638	***
Net investment in poultry (MGA)	16633,88	***
TYPES OF CROPS		
Proportion of households farming rice (%)	-2,935527	***
Proportion of households farming cassava (%)	0,8384978	ns
Proportion of households farming maize (%)	-2,725579	*
Proportion of households farming sweet potatoes (%)	7,885895	***
PRODUCTIVITY		
Total surface area cultivated (m^2)	1765,403	***
Rice yield (kg/m^2)	-	ns
Cassava yield (kg/m^2)	0,9072326	ns
Maize yield (kg/m^2)	0,4268112	***
Sweet potato yield (kg/m^2)	-	ns

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

8.

CHAPITRE 8. HEALTH AND NUTRITION

8.1. Summary

The FIAVOTA program also contributes to human development indicators. In the health sector, resistance to diseases increased between 2016 and 2018: less than 17 percent of the beneficiary population was ill during the recall period in 2018, while it was 25 percent in 2016. Access to health facilities has improved significantly with an increase of more than 17 percent in the intervention regions. This improvement in health status is well perceived by households: the proportion of households reporting good health has increased by more than 4 points over the same period. In addition, by statistically controlling for exogenous factors, the net impact of the program results in an incidence rate of illnesses of 7.7 percent less for beneficiaries compared to the control group population.

Regarding children's nutritional status, the rate of Global Acute Malnutrition (GAM) among children aged 6-59 months among beneficiary households has fallen sharply from 9 percent in 2016 to 4 percent in 2018. In 2018, more than 52 percent of children under 6 months were exclusively breastfed compared to only 40 percent in 2016. In terms of net impact, the proportion of children with GAM is significantly lower among beneficiaries, at 1.8 percentage points below that of the control group.

Among women aged 12 to 49 in beneficiary households since 2016, prenatal consultation rate before the fourth month of pregnancy has increased in 2018 compared to 2016, by around 9 percentage points. Referring to the situation of the control group, the net impact of the program accounts for a difference of 14 percentage points, with beneficiaries faring better.

Regarding family planning, an improvement by 2 percentage points is noted between 2016 and 2018. This increase was more noticeable in the Anosy region compared to the Androy region (+4 percentage points), and among women residing in remote fokontany (+3 percentage points). Nevertheless, the net impact is not tangible in 2018 compared to the situation of the control households.

8.2. Introduction

196. This chapter presents the change in the health status of the population that has benefited from the FIAVOTA program since 2016. We are referring to the population in general, and women aged 12 to 49 years old and children under 5 years old in particular. In addition, a comparison with control households is also presented in this chapter to assess the net impact of the FIAVOTA program on health and nutrition indicators. Firstly, health service delivery is reviewed. The change in the health status of the population is then assessed on the basis of the socio-economic environment of the households, the characteristics of the households and the profile of the head of household. These factors are also used to assess the nutritional status of children under 5 and the situation of women with regard to prenatal care and family planning practices.

8.3. Context and methodology

197. The number of health facilities reported in this chapter relates to the basic health centers where the population residing in the intervention areas of the program usually go to. The health status of the population is usually studied by referring to the last two weeks preceding the survey. The impact of the FIAVOTA program on the health of the population is assessed (i) on the basis of changes in the resilience of the beneficiary population between 2016 and 2018 (household panel), (ii) in relation to the situation of the beneficiaries (non-panel), compared to that of the control population (gross impact), and (iii) in terms of comparative analysis between beneficiary households and control households using propensity score matching (net impact).

198. Good practices for measuring the nutrition of children under 6 months of age is measured by the practice of exclusive breastfeeding[17]. In children under 2 (6 to 23 months), diet diversity is determined by the consumption of foods from at least two food groups.[18]

[17] As defined by the WHO, exclusive breastfeeding supposes that the infant only absorbs breast milk. The infant receives no other liquid or solid food, not even water, with the exception of oral rehydration solutions, or drops/syrups of vitamins, minerals or drugs.

[18] WHO defines a minimum standard of feeding for children under 2 years old, such as consumption of at least four food groups and a minimum frequency of four times for solid, semi-solid or soft food in the last 24 hours. However, given the climate characteristics in the South, the study refers to the consumption of at

199. The nutritional status of children aged 6 to 59 months is revealed by acute malnutrition or wasting.[19]

200. Global Acute Malnutrition (GAM) takes into account moderate acute malnutrition (MAM) and severe acute malnutrition (SAM). SAM is observed when the child's mid-upper arm circumference (MUAC) is less than 115 mm whereas MAM refers to a mid-upper arm circumference of 115 to less than 125 mm. Since GAM corresponds to the number of children whose MUAC is less than 125 mm, it then takes into account children in MAM and SAM categories.

8.4. Health and nutrition services

201. This section discusses the characteristics of health services used by the population residing in fokontany beneficiaries of the FIAVOTA program since 2016. The results reported in this section are based on statements provided by local authorities at the time of data collection (April 2018).

8.4.1. Access to health services

202. **Two types of health facilities, level 1 and level 2 Community Health Centers (CSB1 and CSB2), appear to be the most frequently used** by the population in beneficiary fokontany of the FIAVOTA program in 2018. They are used by 69 percent of the population, and drug depots are used by 18 percent of the population. Access to health services differs somewhat across regions. Three out of four individuals go to CSBs in the Androy region, and one in two in the Anosy region. Nevertheless, the Anosy region is characterized by fairly high access (12 percent) to private clinics.

least two food groups. Foods are grouped according to the following categories: 1. cereals, roots and tubers, 2. legumes and nuts, 3. dairy products (milk, yogurt, cheese), 4. meat products (meat, fish, poultry, liver/offal), 5. Eggs, 6. fruits and vegetables rich in vitamin A, 7. other fruits and vegetables.

[19] Emaciation refers to a low weight/height ratio. It is often a sign of recent and severe weight loss because a child has not eaten enough food and/or has had an infectious disease.

Table 50: Types of health facility attended by the population of the beneficiary fokontany

Unit: percent

	ANDROY	ANOSY	OVERALL
Teaching/Regional/District hospitals	2.1	9.3	4.4
CSB1, CSB2	78.7	48.8	69.3
Private clinic	1.1	11.6	4.4
Private doctor	3.2	2.3	2.9
Drug depot	13.8	27.9	18.2
Other	1.1	0.1	0.8
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

203. **Overall, the distance that the population residing in beneficiary fokontany of the FIAVOTA program have to travel to get to a health facility is fairly long**, on average around 6.0 km for both regions: the distance is comparatively high in Androy (6.7 km) compared to Anosy (4,5 km). In the case of CSBs, the health facility most frequently attended by the population, an average distance of 7.7 km separates them from the fokontany center in Androy, and the farthest ones are 21 km away. In Anosy, the CSBs with the highest attendance are located on average 4.7 km from the fokontany center, and the farthest ones are 9 km away. Regardless of the distance of health facilities, the population accesses them on foot.

Table 51: Average distance from fokontanys to health services

Unit: km

	ANDROY	ANOSY	OVERALL
Teaching/regional/district hospital	1.0	6.0	4.3
CSB1, CSB2	7.7	4.7	7.1
Private clinic	2.0	4.6	4.2
Private doctor	3	7.0	2.0
Drug depots	4.0	3.5	3.8
Other	2.0	.	2.0
TOTAL	*6.7*	*4.5*	*6.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

8.4.2. Nutrition

204. **Nutrition sites are fairly close to the population in the FIAVOTA intervention zone.** The number of community nutrition sites supported by the FIAVOTA Project is 338, of which nearly 9 sites out of 10 are located in the Androy region. For the most part, whether in Androy or Anosy, these sites are located within a distance of one kilometer from the center of the fokontany, and serve a total of a thousand fokontany.

205. At the time of the visit of data collection agents, questions were asked about the number of children under 2 weighed and measured over the last two months, the number of children diagnosed with moderate acute malnutrition (MAM), and the number of pregnant women attending community nutrition sites.

206. **Attendance at nutrition sites has improved significantly after the implementation of FIAVOTA.** Between 2016 and 2018, with awareness-raising activities, the average number of children weighed and measured per nutrition site increased by 19 percent. During this period, in Androy, the average number of children weighed two months before the visit of data collection agents increased by 19 percent, while in Anosy, this increase was by 30 percent.

Table 52: Changes in the average number of children under 2 weighed and measured in the last two months

Unit: person

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
Children weighed two months before	112	133	118	154	113	135
Children weighed one month before	108	125	105	160	108	128
Children measured two months before	83	139	60	140	81	139
Children measured one month before	93	123	46	142	89	125

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey- 2016 Baseline, authors' calculations.

207. **The nutritional status of children has significantly improved after the implementation of FIAVOTA**. In fact, the number of children suffering from acute malnutrition has decreased from 35 to 21 children per site. Over the month prior to the visits of data collection agents, the average number of children screened with MAM per nutrition site has decreased from 36 to 21 in Androy and from 28 to 8 in Anosy.

Table 53: Changes in the average number of children with MAM in the last two months

Unit: person

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
Month number (n-2)	39	24	35	16	39	24
Month number (n-1)	36	21	28	8	35	21

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

208. As for pregnant women, they are increasingly attending nutrition sites and receive awareness raising services about their nutritional practices during pregnancy and prenatal consultation at health facilities. Nutrition sites have been attended by many more women between 2018 and 2016 with an average increase of 6 women over the last two months. The largest increase was observed for nutrition sites in the Anosy region, with an increase of 8 women per site during this period.

Table 54: Changes in the average number of pregnant women attending commUnity nutrition sites in the last two months

Unit: person

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
Month number (n-2)	15	20	10	18	14	20
Month number (n-1)	14	19	11	18	14	19

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/ FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.5. Incidence of disease

209. **Since 2016, resistance to various diseases has increased among program beneficiary households**. Indeed, in the FIAVOTA intervention area, there were a lot fewer sick people in 2018 compared to 2016 in the last two weeks preceding the visits of the data collection agents. In Androy, 16 percent of people have had illness in 2018, compared to 25 percent in 2016. In Anosy, the proportion of sick people fell by 4 percentage points. Regardless of household profile, the overall resistance of beneficiaries to diseases has improved.

Table 55: Changes in the incidence of diseases among beneficiaries

Unit: %

	Year 2016				Year 2018			
	Have you been sick in the last 2 weeks?							
	Yes, seriously sick	Yes	No	Total	Yes, seriously sick	Yes	No	Total
Overall	1.7	23.7	74.6	100.0	1.2	15.8	83.0	100.0
REGION								
Androy	1.8	23.8	74.4	100.0	1.3	14.8	83.8	100.0
Anosy	0.9	23.8	75.3	100.0	0.7	20.5	78.7	100.0
HOUSEHOLD COMPOSITION								
Household with no ACN or ML	1.7	23.9	74.4	100.0	1.2	15.8	83.0	100.0
Household with an ACN	1.4	22.1	76.5	100.0	1.2	15.9	82.9	100.0
Household with a ML	nd	nd	nd	nd	1.1	16.8	82.1	100.0
TYPE OF HOUSEHOLD								
Male single parent	2.3	31.0	66.7	100.0	5	12.3	87.2	100.0
Female single parent	1.7	26.4	71.9	100.0	1.3	16.4	82.3	100.0
Extended or polygamous	1.4	25.5	73.1	100.0	1.5	13.4	85.1	100.0
Nuclear	1.7	22.2	76.1	100.0	1.0	17.1	81.9	100.0
HOUSEHOLD SIZE								
1 to 3 individuals	2.1	33.7	64.3	100.0	1.8	23.7	74.5	100.0
4 to 6 individuals	2.0	27.3	70.7	100.0	1.4	18.6	80.0	100.0
7 to 10 individuals	1.4	21.7	76.8	100.0	0.9	14.2	84.9	100.0
More than 10 individuals	1.5	18.8	79.6	100.0	1.8	12.0	86.3	100.0
GENDER OF THE HEAD OF HOUSEHOLD								
Male	1.7	22.9	75.4	100.0	1.2	15.7	83.1	100.0
Female	1.7	26.3	72.0	100.0	1.3	16.0	82.8	100.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD								
No education	1.9	22.9	75.2	100.0	1.0	15.4	83.6	100.0
Primary	1.3	25.6	73.2	100.0	1.3	15.7	83.0	100.0
Secondary-University	1.7	23.8	74.5	100.0	1.7	17.1	81.2	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.6. Perception of health status

210. **Since 2016, resilience to diseases has been much more tangible among children under 5 years of age and among adolescents under 17 among beneficiary households.** As for adults, in general, households do not yet perceive this improvement in their health status.

Table 56: Changes in health status in the last 12 months among beneficiaries

Unit: %

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
HEALTH STATUS OF ADULTS						
Good	22.2	16.4	24.6	18.9	22.1	16.8
Fair	44.7	42.1	36.7	38.1	43.3	41.4
Poor	32.8	40.5	38.2	40.0	34.3	40.4
Not relevant	0.3	1.0	0.5	3.0	0.3	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
HEALTH STATUS OF 5-17 YEARS OLD						
Good	19.2	20.7	22.3	18.6	19.2	20.3
Fair	47.1	45.0	41.3	42.6	46.2	44.5
Poor	33.4	22.9	36.2	23.4	34.3	23.0
Not relevant	0.2	11.5	0.2	15.4	0.2	12.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
HEALTH STATUS OF CHILDREN UNDER 5						
Good	15.5	23.1	22.7	20.7	16.6	22.7
Fair	37.3	44.8	29.4	34.6	36.5	43.0
Poor	17.7	24.6	17.7	32.3	18.0	26.0
Not relevant	29.5	7.5	30.2	12.4	28.9	8.3
TOTAL	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.7. Attendance of health facilities

211. **Attendance at health facilities has increased among program beneficiary households since 2016**, with an increase of 17 percentage points from 46 percent in 2016 to 64 percent in 2018. Between 2016 and 2018, attendance increased from 44 percent to 61 percent in Androy, and from 55 percent to 72 percent in Anosy. Depending on the type of household, it appears that strong changes were observed in extended households and female single-parent households (+24 points). It can also be noted that all individuals with illnesses and from male single-parent households were able to access health facilities.

Table 57: Changes in the health facility attendance rate among beneficiaries

Unit : %

	ANDROY		ANOSY		OVERALL	
Male single parent	60.1	42.2	90.5	100.0	63.0	64.9
Female single parent	41.1	64.2	49.3	72.2	42.1	65.8
Extended or polygamous	39.2	63.5	63.4	74.9	41.6	65.9
Nuclear	46.2	58.7	55.4	69.2	47.5	60.9
Overall	44.2	61.2	55.1	71.8	45.6	63.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

212. When considering the grounds mentioned by these households for not attending health facilities, there is a 15 percentage points decrease in the proportion of households mentioning financial issues: the drop is 16 percentage points in Androy and 9 percentage points in Anosy. Extended households appear to be the least affected by the lack of financial means in 2018, with a proportion of 56 percent; a decrease by 16 percentage points compared to 2016.

Table 58: Changes in the proportion of beneficiaries who reported lack of financial means as a reason for not consulting

Unit: percent

	ANDROY		ANOSY		OVERALL	
Diseases	2016	2018	2016	2018	2016	2018
Male single parent	83.8	94.1	100.0	. 0	84.2	94.1
Female single parent	84.5	66.6	73.5	69.2	83.2	67.0
Extended or polygamous	73.8	55.0	44.1	62.5	71.9	56.1
Nuclear	72.8	59.1	73.6	59.9	72.9	59.2
Overall	76.4	60.1	71.3	62.7	75.9	60.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.8. Hand washing practice

213. The table below shows the changes regarding hand washing behaviors in children among beneficiary households of the FIAVOTA program since 2016. It turns out that almost half of the households abide by this hygiene practice on a daily basis and that only less than 5 percent of households are in the pre-contemplation phase, that is to say those who do not express any intention to modify their behavior.

Table 59: Hand washing among children from beneficiary households

Unit: %

	Yesterday, did you order the children to wash their hands with soap?					
	No, I do not intend to	No, but I am aware that I have to	No, I intend to do so, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it has become a habit	Total
Overall	4.8	16.6	15.7	16.2	46.6	100.0
REGION						
Androy	5.6	17.2	17.5	16.7	43.1	100.0
Anosy	1.3	14.0	7.2	14.3	63.2	100.0
TYPE OF HOUSEHOLD						
Household without an ACN	5.1	17.4	16.1	16.0	45.4	100.0
Household with an ACN	1.3	6.7	10.3	19.3	62.4	100.0
Household with a ML	2.9	10.7	9.8	15.8	60.8	100.0
NUMBER OF CHILDREN						
1 child	4.6	15.9	14.1	16.2	49.2	100.0
2 children	5.2	16.3	17.3	16.3	44.8	100.0
3 children and more	4.4	18.8	14.5	16.0	46.2	100.0
MALNUTRITION STATUS						
Urgent	6.5	14.2	16.0	16.3	47.1	100.0
Warning	3.4	16.7	21.1	15.8	43.0	100.0
Requires monitoring	5.1	18.2	10.5	16.6	49.7	100.0
GENDER OF THE HEAD OF HOUSEHOLD						
Male	4.4	17.0	16.1	16.3	46.1	100.0
Female	5.7	15.7	14.6	16.0	48.0	100.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD						
No education	5.7	18.3	17.5	17.6	40.9	100.0
Primary	4.4	15.5	14.9	14.5	50.7	100.0
Secondary-University	2.6	12.8	10.6	14.4	59.5	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

8.9. Women aged 12 to 49

214. This section covers access to prenatal care, breastfeeding, and family planning practices for women aged 12 to 49 in the program's intervention areas.

215. **The monitoring of women's health status has improved significantly.** Among women aged 12 to 49 identified in FIAVOTA beneficiary households since 2016, an increase in prenatal consultation rate before the fourth month of pregnancy was recorded in 2018 compared to 2016. This variation was of the order of +9 percentage points, with a strong increase in towns with at least one health facility in the Androy region.

Table 60: Changes in the proportion of women in beneficiary households who received at least one prenatal care service before the fourth month of pregnancy by household context

Unit: %

	2016	2018
Overall	24.8	33.7
REGION		
Androy	23.6	37.7
Anosy	38.2	22.9
RESIDENCE SETTING		
District capital	39.8	83.1
Commune capital	5.9	. 0
Fokontany	26.5	32.7
NUMBER OF HEALTH CENTERS		
No health facility	27.7	33.2
One health facility	15.0	20.0
2 health facilities and more	11.5	86.3

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

216. Depending on the woman's profile, the greatest variations in the consultation rate were observed among women aged 25 to 34, and among women with less education. This helped reduce the differences in level according to the profile of women in 2018 compared to 2016.

Table 61: Changes in the proportion of women in beneficiary households who received at least one prenatal care service before the fourth month of pregnancy by the profile of the woman

Unit: %

	2016	2018
Overall	24.8	33.7
AGE OF THE WOMAN		
15 to 19 years old	34.4	26.5
20 to 24 years old	37.7	31.3
25 to 29 years old	22.5	53.1
30 to 34 years old	17.2	54.5
35 to 39 years old	23.4	4.3
40 to 44 years old	6.4	22.6
45 to 49 years old	0.0	0.0
EDUCATION LEVEL OF THE WOMAN		
No education	16.7	30.1
Primary	30.3	36.2
Secondary-University	29.6	34.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

217. **Family planning practice is quite limited, but there has been a positive change.** In terms of use of family planning, an improvement by 2 percentage points was noted between the year 2016 and the year 2018 among the beneficiaries enrolled in the program. This increase was most notable in the Anosy region compared with the Androy region (+4 percentage points), and among women living in remote fokontany (+3 percentage points).

Table 62: Changes in family planning practice by household context, among beneficiaries

Unit: %

	2016	2018
Overall	7.2	9.0
REGION		
Androy	6.5	7.6
Anosy	11.6	15.4
RESIDENCE SETTING		
District capital	4.2	2.9
Commune capital	11.0	9.9
Fokontany	6.4	9.2
NUMBER OF HEALTH FACILITIES		
No health facility	6.9	9.0
One health facility	7.7	8.1
2 health facilities and more	10.6	11.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

218. When considering the head of household's profile, households headed by a younger individual are always more inclined to adopting family planning practices. As for the year 2016, the rate of variation was highest among households headed by a fairly young individual (under 29 years old and between 30 and 44 years old). The same also applies to households headed by an individual with less education. For the latter, the variation was in the order of +3 percentage points, increasing from 4 percent to 7 percent from 2016 to 2018. Thus, the gap by the level of education of the head of household has been reduced in 2018 compared to 2016.

Table 63: Family planning practice by profile of beneficiary household

Unit: %

	2016	2018
Overall	7.2	9.0
AGE OF THE HEAD OF HOUSEHOLD		
Under 29 years old	9.6	11.1
30 to 44 years old	7.6	11.6
45 to 59 years old	6.6	6.0
60 years old and over	3.9	3.8
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD		
No education	3.7	6.5
Primary	9.0	11.5
Secondary-University	15.3	12.4

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline 2016, authors' calculations.

219. When considering the profile of women, women aged 35 to 39 years old and the most educated were those with whom a high rate of adoption of family planning practice was observed. Although the proportion of women with no education adopting family planning has increased, it remains very low. Efforts to raise awareness and promote behavior change need to be strengthened.

Table 64 : Changes in family planning practice by profile of women, among the 2016 beneficiaries
Unit: %

	2016	2018
Overall	7.2	9.0
AGE OF THE WOMAN		
12 to 14 years old	. 0	3
15 to 19 years old	5.9	5.9
20 to 24 years old	10.6	11.3
25 to 29 years old	8.6	14.3
30 to 34 years old	8.7	12.6
35 to 39 years old	10.7	17.0
40 to 44 years old	12.7	7.7
45 to 49 years old	3.8	7.1
WOMAN'S EDUCATION LEVEL		
No education	4.1	5.5
Primary	6.1	8.7
Secondary-University	13.8	14.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.10. Breastfeeding and nutrition for children under two years old

220. This section looks into the nutritional status of children under two years old. To do this, at first, the food intake of infants of less than 6 months was assessed and in a second time, that of infants aged 6 to 23 months.

8.10.1. Breastfeeding among infants under 6 months

221. According to the WHO, "exclusive breastfeeding means that the infant consumes only breast milk. It receives no other food or drink, not even water, with the exception of oral rehydration solutions, or drops and syrups (vitamins, minerals or medicines.)"

222. **Mothers of children less than 6 months seem to be convinced with exclusive breastfeeding as illustrated by changes in the proportion of children breastfed between 2016 and 2018**. For all beneficiaries in the South, particularly those who have benefited from the program since 2016, this proportion has increased from 40 percent in 2016 to 52 percent in 2018. The greatest variation was found among mothers living in the Androy region, thus narrowing the gap between the two regions.

Table 65: Changes in exclusive breastfeeding for infants under 6 months old among beneficiaries, by household context

Unit: %

	2016	2018
Overall	40.2	51.7
REGION		
Androy	39.7	51.3
Anosy	44.6	52.7
RESIDENCE SETTING		
District capital	31.8	55.6
Commune capital	29.1	33.4
Fokontany	42.3	56.4
NUMBER OF HEALTH FACILITIES		
NO HEALTH FACILITY	***42.5***	***49.9***
One health facility	35.5	59.3
2 health facilities and more	15.7	21.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.10.2. Feeding of children 6 to 23 months old

223. Diet plays a key role in the development of a child. It affects the growth and physical health of the child as well as its psychosocial and emotional development. It also contributes to the prevention of some health conditions. The quality of diet is therefore crucial for the good development of the child. From 2016 to 2018, the quality of the diet of children of beneficiary households has changed. This has resulted in an increase in the proportion of children who have consumed much more grains, legumes, and protein.

224. The PSM gap shows that the situation of beneficiary children is better compared to that of the control group. With significantly higher grains consumption (for example rice: +6.3 percentage points), legumes (+3.9 percentage points), and protein (+0.9 percentage points), children in beneficiary households consumed less cactus fruit (-28.6 percentage point).

Table 66: Changes in the proportion of children aged 6 to 23 months old by food consumption, among beneficiaries

Unit: %

	Year 2016	Year 2018	PSM gap (2018) *
Cassava	27.4	41.4	8.7
Rice	35.4	42.8	6.3
Foods made from/consisting of beans, peas, lentils	1.1	8.4	3.9
Bread/donuts, pasta	6.6	9,5	2,9
Other grain-based foods	1,9	2,6	2,1
Squash, carrots, pumpkins	1,0	1,9	1,7
Goat	0,8	2,5	0,9
Baby food	4,2	5,9	-2,9
Cactus fruit	19,6	23,6	-28,6

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline 2016, authors' calculations. (*): in percentage point (significant at 0.05 or less), Beneficiary VS control group

225. Food diversification remains limited to grains and fruits and vegetables. However, the proportion of children under 2 who have consumed at least two food groups varies by the context of the household. However, it has increased in 2018 compared to 2016, going from 52 to 61 percent. The largest increase is observed in the Anosy region, which also recorded the highest rate at 73 percent.

Table 67: Changes in the proportion of children aged 6 to 23 months who consumed at least food from two food groups depending on household situation, among beneficiaries

Unit: %

	Year 2016	Year 2018
Overall	52.5	61.3
REGION		
Androy	53.2	59.0
Anosy	48.1	72.9
RESIDENCE SETTING		
District capital	46.9	46.6
Commune capital	49.7	63.4
Fokontany	53.8	61.5
NUMBER OF HEALTH CENTERS		
No health facility	52.8	60.8
One health facility	47.3	68.8
2 health facilities and more	71.3	34.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

226. When considering the profile of households, households with no CAN among their members are the ones where a lot of efforts were observed. The proportion of children receiving food from at least two food groups increased from 52 percent to 61 percent. Such efforts have also been observed in both extended and male-headed households.

Table 68: Change in the proportion of children aged 6 to 23 months who consumed at least two food groups by household profile, among beneficiaries

Unit: %

	Year 2016	Year 2018
Overall	52.5	61.3
TYPE OF HOUSEHOLD		
Household without an ACN	52.1	61.5
Household with an ACN	57.3	59.0
HOUSEHOLD SIZE		
1 to 3 individuals	52.4	42.6
4 to 6 individuals	53.6	59.7
7 to 10 individuals	53.8	67.9
More than 10 individuals	46.7	63.0
GENDER OF THE HEAD OF HOUSEHOLD		
Male	52.7	62.2
Female	51.9	58.1

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline 2016, authors' calculations.

8.11. Acute malnutrition in children 6-59 months

227. When considering the specific context of households, **the early impacts among beneficiary households were much more pronounced in the Anosy region with a sharp drop in the GAM** rate, from 9 percent to 4 percent between 2016 and 2018. Moreover, the SAM rate is at less than 1 percent. Proximity seems to be a decisive factor in reducing the rate of malnutrition in the South. Households located less than 15 minutes from nutrition sites experienced a considerable decline in the rate of malnutrition, dropping from 10 percent to 4 percent between 2016 and 2018.

Table 69 : Changes in acute malnutrition rates among children aged 6 to 59 months old by household context, among beneficiaries

Unit: %

	Year 2016			Year 2018		
	SAM	MAM	GAM	SAM	MAM	GAM
Overall	1.8	7.9	9.7	0.5	3.8	4.3
REGION						
Androy	1.9	7.7	9.5	0.5	3.2	3.8
Anosy	1.7	9.3	11.0	0.5	6.2	6.7
RESIDENCE SETTING						
District capital	5.8	8.5	14.3	0.0	2.4	2.4
Commune capital	0.8	6.2	7.1	0.1	3.8	3.9
Fokontany	1.8	8.3	10.1	0.7	3.9	4.6
DISTANCE TO THE SITE						
Less than 15 minutes	1.6	8.3	9.9	0.2	3.5	3.7
15 min to 1 hour	2.4	7.7	10.1	0.8	4.1	4.9
More than an hour	1.9	6.2	8.1	1.7	4.7	6.4
NUMBER OF HEALTH FACILITIES						
No health facility	2.0	8.1	10.1	0.6	3.6	4.2
One health facility	1.4	7.2	8.6	0.2	4.5	4.7
2 health facilities and more	0.4	8.0	8.4	0.3	3.6	3.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

228. When considering the profile of households, the impacts were the strongest in households where a member is a community nutrition worker (ACN). Among these households, the GAM rate dropped from 9 percent to 2 percent from 2016 to 2018.

229. These strong variations were much more noticeable when the household receives cash transfers other than FIAVOTA rather than food or other forms of social protection. Among households receiving cash transfers, the GAM rate has dropped significantly, from 14 percent in 2016 to 3 percent in 2018. Among those who received food rations, this rate dropped from 10 percent in 2016 to 4 percent in 2018.

Table 70 : Acute malnutrition rates among children aged 6 to 59 months by household profile, among beneficiaries

Unit: %

	Year 2016			Year 2018		
	SAM	MAM	GAM	SAM	MAM	GAM
Overall	1.8	7.9	9.7	0.5	3.8	4.3
PRESENCE OF AN ACN IN HOUSEHOLD						
Household without an ACN	2.0	7.9	9.8	0.6	3.9	4.4
Household with an ACN	0.3	8.4	8.7	0.0	2.2	2.2
Type of household						
Male single parent	1.0	10.7	11.7	0.0	3.5	3.5
Female single parent	2.2	8.6	10.8	0.1	3.2	3.3
Extended or polygamous	1.4	7.7	9.1	1.7	3.4	5.1
Nuclear	1.8	7.6	9.3	0.5	4.1	4.6
SOCIAL PROTECTION						
Cash transfers	3.6	10.7	14.3	0.2	2.6	2.7
Food rations	2.0	8.0	10.1	0.4	3.8	4.2
Other support	0.0	7.3	7.3	0.0	1.0	1.0
No support	1.1	6.7	7.8	0.8	4.4	5.1

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

230. **The profile of the head of household also influences the intensity of the program's impact on children's nutritional status.** The impact is much more important in households headed by a woman than in households head by a man. In addition, the impact is lower for households headed by an individual with less education compared to those households headed by an individual with more education. For example, in the 2016-2018 period, in female-headed households, the GAM rate decreased by 7 percentage points, from 11 percent in 2016 to 4 percent in 2018, while the decline was by 5 percentage points in male-headed households.

Table 71: Changes in acute malnutrition rates among children aged 6 to 59 months old by head of household profile, among beneficiaries

Unit: %

	Year 2016			Year 2018		
	SAM	MAM	GAM	SAM	MAM	GAM
Overall	1.8	7.9	9.7	5	3.8	4.3
GENDER OF THE HEAD OF HOUSEHOLD						
Male	1.7	7.6	9.3	7	3.9	4.5
Female	2.2	8.6	10.8	. 1	3.5	3.6
AGE OF THE HEAD OF HOUSEHOLD						
Under 29 years old	2.7	8.8	11.5	6	5.2	5.8
30 to 44 years old	1.9	7.6	9.5	2	3.9	4.1
45 to 59 years old	1.4	7.9	9.3	6	2.3	2.9
60 years old and over	9	7.3	8.3	1.4	3.1	4.5
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD						
No education	1.9	8.6	10.5	6	3.8	4.4
Primary	2.1	6.1	8.3	4	5.0	5.4
Secondary-University	8	8.5	9.3	3	1.4	1.7

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey – 2016 Baseline, authors' calculations.

8.12. Net impact of the FIAVOTA program on health

231. The analysis of the FIAVOTA program's impact in this section focuses on a comparative analysis between beneficiary and control households, using propensity score matching. With this approach, the net impact of the program is identified insofar as the exogenous factors are statistically controlled for.

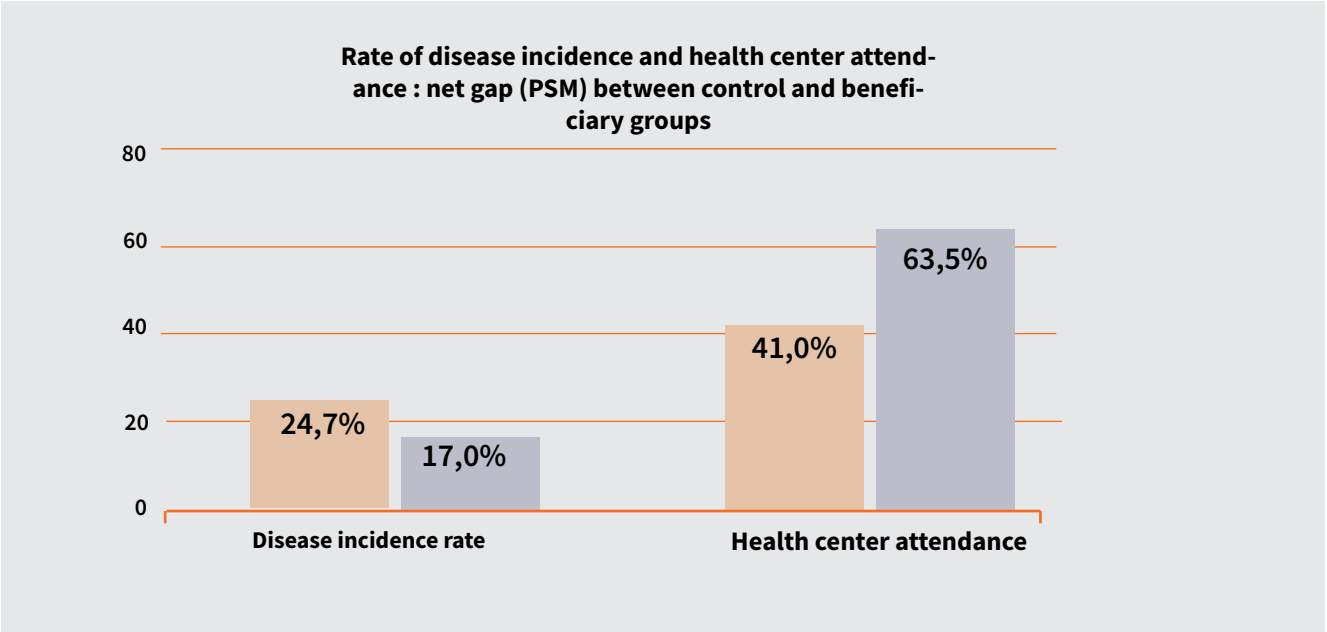
232. Compared to the situation of control households, **the impact of the program seems most tangible in terms of access to health facilities and prenatal** consultation services among women aged 12 to 49 years old. Attendance of health facilities is high among beneficiary households compared to control group households. The attendance rate is 22.5 percentage points higher among beneficiary households. **The impact seems much larger in female-headed households** (+31.3 points) compared to male-headed households (+19.3 points). Regarding prenatal consultation by women before the fourth month of pregnancy, a gap of 15 points is noted in favor of beneficiaries.

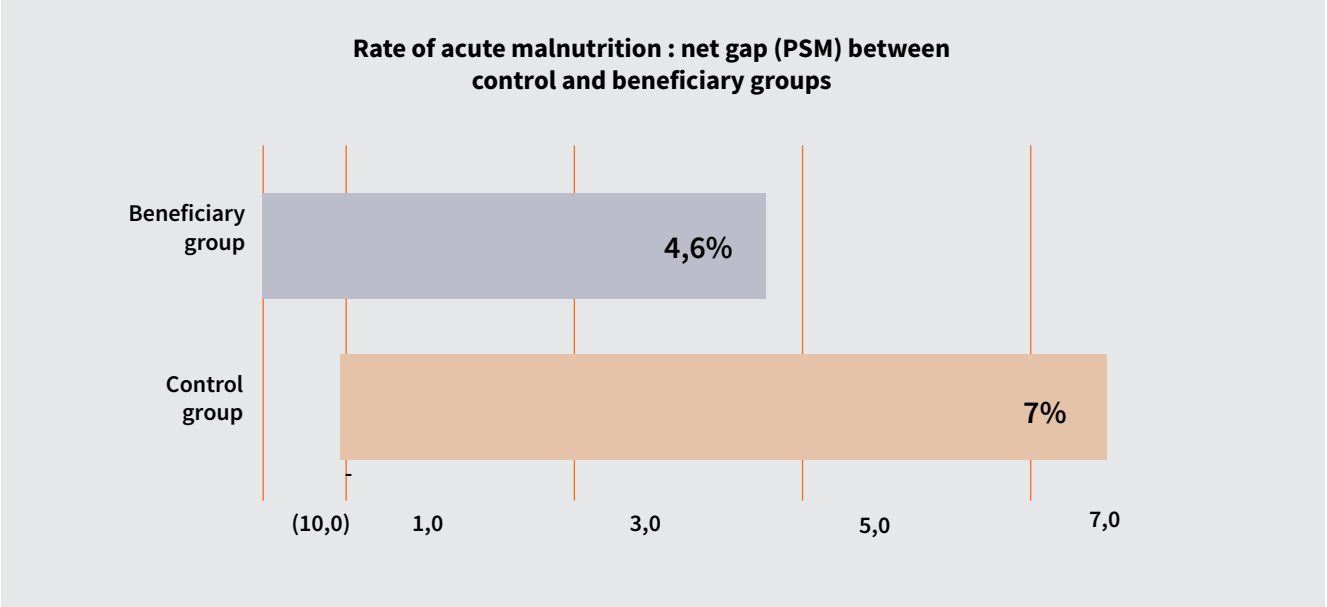
233. **The resilience of the FIAVOTA program's beneficiary population has improved in 2018.** The rate of disease incidence among beneficiaries is 7.7 percentage points lower than among the control group. Improvement of the resilience of beneficiaries appears much higher among male-headed households.

234. **The FIAVOTA program has also had a positive impact on the nutrition of children from 6 to 59 months old.** Although the effects of the program on beneficiaries compared to households in the control group seem small, they are significantly non-null. The proportion of children with Global Acute Malnutrition (GAM) is much lower among beneficiary households at 1.8 percentage points below that of the control group, and -2.4 percentage points where the household is headed by a woman. The rate of severe acute malnutrition (SAM) also dropped among children from beneficiary households and is 0.3 percentage points below that of the control group.

235. Nevertheless, in referring to the situation of households in the control group, t**he effects of the program are not tangible in some cases, such as on the feeding of children from 6 to 23 months old and on the use of family planning.**

Figure 18: Net impact of the FIAVOTA program on health (PSM gap)





Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 72: Impact of the FIAVOTA program on health (PSM gap: Beneficiary - control)

Indicators	Health facility attendance rate	Incidence rate of disease (%)	Proportion of children under 6 to 23 months who consumed food from at least two groups (%)	GAM rate (%)	MAM rate (%)	SAM rate (%)	Prenatal consultation rate before the 4th month of pregnancy for women aged 12 to 49 years old (%)	Family planning use rate (%)
Overall	22.5 ***	-7.7 ***	-0.8 (ns)	-1.8 ***	-1.4 **	-0.4 **	14.8 *	-4.9 ***
SOCIAL PROTECTION								
Support other than FIAVOTA	12.4	-5.0	-0.6 (ns)	-2.3 (ns)	-2.0 (ns)	-0.3 (ns)	-37.0	-7.6
No support other than FIAVOTA	26.6	-10.1	3.5 (ns)	-0.9 (ns)	-0.6 (ns)	-0.3 (ns)	27.3	-4.5
HOUSEHOLD SIZE								
1 to 3 individuals	24.2	N/A	N/A	-1.5 (ns)	-2.6 (ns)	1.0 (ns)	34.	-7.8
4 to 6 individuals	25.9	N/A	N/A	-1.0 (ns)	-0.6 (ns)	-0.2 (ns)	24.5	-3.1
More than 7 individuals	27.1	N/A	N/A	-1.0 (ns)	-0.6 (ns)	-0.3 (ns)	10.9	-4.7
NUMBER OF CHILDREN UNDER 5 YEARS OLD								
1 child	23.2	-5.4	2.8 (ns)	-1.4 (ns)	-1.3 (ns)	0.3 (ns)	1.3 (ns)	-4.8
2 children	23.1	-11.1	-0.1 (ns)	-1.3 (ns)	-1.0 (ns)	-0.1 (ns)	-15.3 (ns)	-6.4
3 children and more	27.3	-9.1	-0.4 (ns)	N/A	-0.2 (ns)	-0.9 (ns)	18.0 (ns)	-2.5
GENDER OF THE HEAD OF HOUSEHOLD								
Male	19.3	-8.8	-1.5 (ns)	-1.2 (ns)	-0.9 (ns)	-0.3 (ns)	19.4	-4.9
Female	31.3	-7.5	-1.4 (ns)	-2.4	-2.0 (ns)	-0.4	-10.9 (ns)	-6.5
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD								
No education	27.9	-7.8	-1.1 (ns)	-2.6	-1.2	-0.7	10.0	-2.9
Primary	29.8	-7.5	-1.5 (ns)	-0.9 (ns)	-0.6 (ns)	-0.3 (ns)	-1.1	-5.8
Secondary-University	19.0	-17.3	0.5 (ns)	-2.2 (ns)	-2.2 (ns)	0.05 (ns)	13.3	-14.1

Note: ns means statistically non-significant

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

9.

CHAPITRE 9. EDUCATION

9.1. Summary

With respect to the education of children, the impact of the FIAVOTA program is largely positive. School attendance among children aged 6-10 years increased by 8 percentage points in school year 2017-2018 compared to school year 2016-2017. The increase in school attendance was accompanied by a 7-percentage point increase in primary net enrollment ratio. Moreover, the lack of financial means is less and less mentioned as a reason for school drop-out: 60 percent of cases in 2018 against 75 percent of cases in 2016. These improvements are well perceived by beneficiary households of FIAVOTA.

Consequently, the program had a net impact, with a difference of 12.4 percentage points for primary net enrollment ratio between beneficiary households and control group households and a difference of 10.7 points for gross enrollment ratio. This net impact is much more marked in male-headed households.

Nevertheless, the education supply seems unable to respond to the increasing demand. At the primary level, 82 percent of schools exceeded their capacity in 2017-2018 compared to 72 percent in 2016-2017. In addition, a slight deterioration of structures is noted with an increase of 5 percentage point for buildings in poor condition associated and a decrease in support services, such as school canteens (-3 points), student parents' associations (-6 points) and management committees (-12 points).

9.2. Introduction

236. This chapter addresses the changes in key education indicators, especially among the children of beneficiary households of the FIAVOTA program since 2016. The chapter is divided into four sections. It first addresses the change in education supply taking primary schools separately from secondary schools. Next, school attendance of children aged 6-10 years as well as gross and net primary enrollment rates are discussed. Finally, the perceptions of households on the children's education as well as the reasons for school drop-out bring this chapter to a close. These different elements are assessed mainly When considering household environment, household characteristics, as well as the profile of the head of household.

9.3. Background and methodology

237. The education supply was assessed with the local communities that benefited from the FIAVOTA program and covered the primary public schools most attended by these communities.

- The education supply in this section is reviewed through the changes in a panel of public primary schools most attended by the population;
- School characteristics are those reported by the heads of school, and those directly observed in the case of structures;
- Primary Net Enrollment Rate (NER) is the ratio of the number of children aged between 6-10 years who are enrolled in primary schools to the total population of the same age group. This rate cannot exceed 100 percent;
- Primary Gross Enrollment Rate (GER) is the total number of children enrolled in primary schools, regardless of age, expressed as a percentage of the population aged 6-10 years. GER can be greater than 100 percent. A value that is more than 100 indicates that there are children under 6 or above 10 years of age enrolled in primary schools;
- School dropout for children aged 6-10 years is the interruption of study before obtaining the Elementary Primary Education Certificate (CEPE) delivered at the end of the primary cycle.

238. The impact of the FIAVOTA program on education is assessed from both supply and demand sides. The changes in supply and demand indicators between 2016 and 2018 are assessed based on a panel of households and schools. Next, the situation of beneficiary households is compared to that of control group households for year 2018, using the Propensity Score Matching (PSM) method to estimate the net impact of the program on education.

9.4. Characteristics of public primary schools

9.4.1. School infrastructure

239. **Between school years 2016-2017 and 2017-2018, a deterioration of structures and an improvement of school equipment were noted**. The condition of school buildings has slightly deteriorated as 41 percent of them were found to be in poor condition in 2016 against 46 percent in 2018. This deterioration particularly affected primary schools in the Androy region, where the proportion of buildings reported as in poor condition increased by 10 percentage point. In the Anosy region, structures also deteriorated, as only 9 percent of primary schools were found to be in good condition in 2018 against 18 percent in 2016.

240. The condition of windows reflects the deterioration of buildings in both Androy and Anosy. In 2018, nine out of ten buildings do not have glass windows, whereas only eight out of ten buildings were in this condition in 2016. The situation in Anosy is deplorable given the change in the number of buildings with no glass window, the proportion increasing from one out of two in 2016 to nine out of ten in 2018.

241. **Despite the deterioration of structures, primary schools were better equipped with tables in school year 2017-2018.** More than 43 percent of schools were equipped with tables in poor condition in 2018 against 51 percent in 2016. A few schools also acquired new tables, such as those located in the Anosy region. In this region, 18 percent of schools were not equipped with tables in 2016, but this proportion decreased to 9 percent in 2018.

Table 73: Condition of structures and equipment in public primary schools, by region

Unit: %

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
CONDITION OF THE BUILDING						
Good	18.3	16.9	18.2	9.1	18.3	15.7
Fair	45.0	35.6	18.2	54.5	40.8	38.6
Poor	36.7	47.5	63.6	36.4	40.8	45.7
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
CONDITION OF WINDOWS						
Good	0.0	1.7	0.0	0.0	0.0	1.4
Fair	5.0	3.4	18.2	9.1	7.0	4.3
Poor	6.7	3.4	27.3	0.0	9.9	2.9
Without glass window	88.3	91.5	54.5	90.9	83.1	91.4
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
CONDITION OF TABLES						
Good	5.0	6.8	9.1	0.0	5.6	5.7
Fair	28.3	33.9	9.1	27.3	25.4	32.9
Poor	48.3	39.0	63.6	63.6	50.7	42.9
Without table	18.3	20.3	18.2	9.1	18.3	18.6
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations

9.4.2. Organizational structures

242. Three types of organizational structures contribute significantly to the internal efficiency of primary education in Madagascar: (i) school canteens, (ii) parents' associations and (iii) management committees. Between school years 2016-2017 and 2017-2018, a deterioration of these structures was noted in public primary schools, with a much more pronounced deterioration in the Anosy region.

243. School canteens: Across both regions, the proportion of public primary schools offering school canteen services decreased slightly between school years 2016-2017 and 2017-2018. The deterioration of this structure is more tangible in Anosy: the proportion of schools with a canteen decreased from 27 percent in 2016 to 18 percent in 2018. Moreover, these proportions are much lower than those in Androy (78 percent in 2016 and 75 percent in 2018).

244. Parents' associations: The proportion of schools with this organizational structure decreased by 5 percentage points across the two regions, from 94 percent in 2016 to 89 percent in 2018. The region of Anosy seems more affected. It appears that one in three schools in this region no longer have a student parents' association whereas this structure existed in all the schools before.

245. Management committees: The proportion of primary schools with a management committee has decreased in both regions. In Androy, three schools out of four had this structure in 2016, but this proportion decreased in 2018, with the structure existing in only two out of three schools. The decline is much more marked in Anosy, where only one out of two schools has a management committee in 2018.

Table 74: Organizational structures in public primary schools, by region

Unit: %

	ANDROY		ANOSY		OVERALL	
	2016	2018	2016	2018	2016	2018
EXISTENCE OF SCHOOL CANTEEN						
Yes	76.7	74.6	27.3	18.2	69.0	65.7
No	23.3	25.4	72.7	81.8	31.0	34.3
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
EXISTENCE OF PARENTS' ASSOCIATION						
Yes	93.3	91.5	100.0	72.7	94.4	88.6
No	6.7	8.5	0.0	27.3	5.6	11.4
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
EXISTENCE OF MANAGEMENT COMMITTEE						
Yes	76.7	67.8	81.8	54.5	77.5	65.7
No	23.3	32.2	18.2	45.5	22.5	34.3
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

9.5. School attendance among children aged 6-10 years

246. School attendance among children aged 6-10 years during school year 2017-2018 remains high among beneficiaries of the FIAVOTA program, both in Androy and Anosy. A sharp increase was also noted at the time of the 2018 midline evaluation compared to the 2016 baseline, from 75 percent to 83 percent. In relation to the household profile, the highest rates of change in enrollment of children aged 6-10 years were observed in low-income households (+13 percentage points) and female-headed households (+12 percentage points).

247. In 2016, as in 2018, the education level of the head of household is a determinant of school attendance among children aged 6-10 years[20]. The higher the level of education of the head of household, the higher the school attendance of children. Nevertheless, from 2016 to 2018, the gap has narrowed between the situation of households headed by a head of household with no education and that of households whose head reached the secondary level or higher, at 21 percentage points in 2016 against 15 points in 2018. This observation shows that the FIAVOTA program has had a larger effect on less educated households.

[20] Correlation validated by an independence test in the 2016 Baseline Report, authors' calculations.

Table 75: Changes in school attendance rates among children aged 6-10 years, by household profile among beneficiaries

Unit: %

	Year 2016	Year 2018
Overall	75.3	82.9
REGION		
Androy	75.9	83.7
Anosy	70.5	79.3
TYPE OF HOUSEHOLD		
Male single parent	79.2	72.9
Female single parent	72.3	84.0
Extended or polygamous	77.7	86.7
Nuclear	76.0	80.4
HOUSEHOLD SIZE		
1 to 3 individuals	68.3	81.9
4 to 6 individuals	76.0	83.4
7 to 10 individuals	74.8	81.1
More than 10 individuals	75.9	87.5
GENDER OF THE HEAD OF HOUSEHOLD		
Male	76.2	82.7
Female	72.8	83.6
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	69.4	78.3
Primary	81.7	88.2
Secondary-University	90.3	93.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

9.6. Primary Net Enrollment Rate (NER) and primary Gross Enrollment Rate (GER)

248. Primary Net Enrollment Rate (NER) is the percentage of children aged 6-10 years enrolled in primary schools compared to the total number of children in the same age group. Primary Gross Enrollment Rate (GER) provides information on the number of children enrolled in primary level, regardless of age, in relation to the total number of children aged 6-10 years. Therefore, GER accounts for children under 6 or over 10 who are enrolled at the primary level.

249. The increase in school attendance rate for children aged 6-10 years came with an increase in NER in both the Androy and Anosy regions. More specifically, overall, NER increased by 7 percentage points in 2018 compared to 2016, from 69 percent to 76 percent. The greatest variation between these two periods was observed in Anosy (+9 percentage points, from 65 percent to 74 percent), thus narrowing the gap between the two regions in terms of children schooling.

250. When considering household size, school attendance among children aged 6-10 increased significantly in households of 3 or fewer people (+10 percentage points) and those of 10 or more people (+11 percentage points). When considering the head of household's level of education, school attendance improved significantly among households headed by an individual with no education, with an NER increase of 9 percentage points.

Table 76: Changes in primary Net Enrollment Rate (NER) by household profile among beneficiaries

Unit: %

	Year 2016	Year 2018
Overall	68.9	76.0
REGION		
Androy	69.5	76.4
Anosy	64.8	73.7
TYPE OF HOUSEHOLD		
Male single parent	76.7	72.9
Female single parent	66.2	77.8
Extended or polygamous	71.7	80.6
Nuclear	69.4	72.3
HOUSEHOLD SIZE		
1 to 3 individuals	66.3	76.6
4 to 6 individuals	69.7	76.6
7 to 10 individuals	68.9	74.2
More than 10 individuals	68.3	79.4
GENDER OF THE HEAD OF HOUSEHOLD		
Male	69.8	75.7
Female	66.6	76.6
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	62.8	71.8
Primary	74.6	80.1
Secondary-University	86.8	86.7

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

251. As regards primary GER, a positive difference of 5 percentage points was noted between 2016 and 2018. During school year 2017-2018, primary GER was 84 percent, with levels being consistent across types of households, unlike in the 2016 baseline period. The situations of the two regions have grown closer between these two school years, as well as the situations of male-headed and women-headed households, or the situations of households headed by n an individual with no education and those whose head has reached the secondary or higher level.

Table 77: Changes in primary gross enrollment rate (GER) among beneficiaries

Unit: %

	Year 2016	Year 2018
Overall	79.1	84.2
REGION		
Androy	79.4	84.5
Anosy	76.3	82.5
TYPE OF HOUSEHOLD		
Male single parent	85.6	84.2
Female single parent	76.3	86.1
Extended or polygamous	80.5	87.8
Nuclear household	79.7	80.8
HOUSEHOLD SIZE		
1 to 3 individuals	78.9	83.4
4 to 6 individuals	78.7	83.6
7 to 10 individuals	79.2	83.7
More than 10 individuals	79.0	87.0
GENDER OF THE HEAD OF HOUSEHOLD		
Male	79.9	83.8
Female	76.7	85.3
EDUCATION LEVEL OF THE HOUSEHOLD HEAD		
No education	74.3	81.1
Primary	83.5	87.0
Secondary-University	91.4	91.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

9.7. School dropouts

252. Factors of school dropping out among for children aged 6-10 years can be multiple, however the lack of financial means has been a persistent factor among beneficiary households since 2016. Nevertheless, it should be noted that for school year 2017-2018, compared to the previous school year, the proportion of beneficiary households affected by the lack of financial means as a school dropout factor declined by 6 percentage points, from 75 percent to 61 percent.

Table 78: Factors for dropping out of school among children aged 6 -10 years, by household category

Unit: %

	Beneficiary households	
Causes of school dropout among children aged 6 to 10	Year 2016	Year 2018
No financial resources from parents	74.9	60.6
Preference for an apprenticeship or a job	2.4	4.6
Pregnancy, Marriage	0.0	0.8
Disability, Illness	1.2	2.1
School failure	2.2	8.2
Not old enough to go to school	6.3	16.3
School too far from the locality	1.8	2.4
Study completed	0.0	0.0
Other	11.2	5.0
TOTAL	***100.0***	***100.0***

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

253. The improvement of education indicators is confirmed by parents' perceptions of their children's education. The satisfaction rate reached 35 percent among households that benefited from the FIAVOTA program, compared to 25 percent for all control group households.

Table 79: Perceptions of children's education by household category in 2018

Unit: %

Satisfaction rate	Beneficiary group	Control group
Satisfied	34.6	25.3
Moderately satisfied	43.4	37.5
Unsatisfied	22.1	37.2
Not concerned	0.0	0.0
TOTAL	***100.0***	***100.0***

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, 2016 baseline, authors' calculations.

9.8. Net impact of the FIAVOTA program on children's education

254. This section presents the results of the analysis of the FIAVOTA program's impact on the education of children aged 6-10 years by assessing the difference at the individual level between beneficiary households and control group households, using the Propensity Score Matching method. Therefore, factors exogenous to the program have been statistically controlled for.

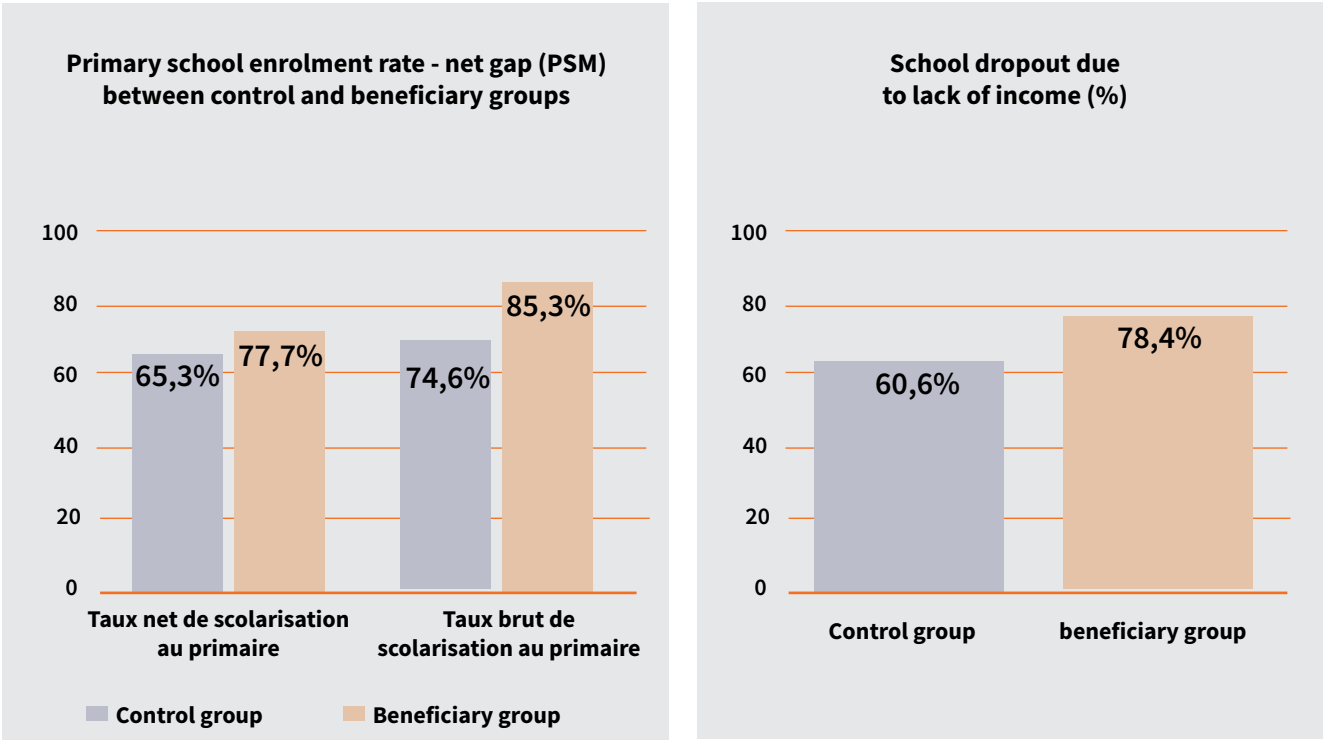
255. The table below summarizes this analysis, with reference to three indicators, (i) school attendance rate, (ii) Net Enrollment Rate, and (iii) Gross Enrollment Rate, by gender of the head of household.

256. The number of children aged 6-10 years in beneficiary households who have attended school in school year 2017-2018 is higher compared to that of control group households. A gain of 8.8 percentage points was recorded, and the net impact appears much larger in nuclear households (+11.7), in households of 7 people or more (+9.8), in female-headed households (+8.3), and in households with less educated head of household (+11.0).

257. In terms of children's schooling, the FIAVOTA program has had a significant impact on Net and Gross Enrollment Rates in school year 2017-2018. Primary net enrollment rate is 12.4 percentage points higher among beneficiary households compared to control group households.

258. Female single-parent households, households of 7 people or more, and households headed by individuals with no education seems to have benefited the most from the FIAVOTA program in terms of young children schooling. NER and GER observed among these households are significantly higher than those of control households (+14.1 percentage points, +14.9 points and +9.7 points respectively).

Figure 19: Net impact of the FIAVOTA program on education (PSM gap)



Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2108 midline survey, authors' calculations.

Table 80: Positive net impact of the FIAVOTA program on children's schooling (PSM gap)

Indicators	School attendance rate (%)	Net primary school enrollment rate (%)	Gross primary school enrollment rate (%)
Overall	8.8	12.4	10.7
TYPE OF HOUSEHOLD			
Male single parent	5.8 (ns)	N/A	N/A
Female single parent	6.1	18.2	14.1
Expanded or polygamous	4.9	11.9	6.9 (ns)
Nuclear	11.7	15.4	13.1
HOUSEHOLD SIZE			
1 to 3 individuals	-0.7 (ns)	-8.1	-9.2
4 to 6 individuals	4.7	10.2	7.7
More than 7 people	9.8	19.1	14.9
GENDER OF THE HEAD OF HOUSEHOLD			
Male	8.0	14.3	10.9
Female	8.3	13.3	10.5
EDUCATION LEVEL OF THE HOUSEHOLD HEAD			
No education	11.0	12.8	9.7
Primary	7.2	10.9	7.9
Secondary-University	3.6 (ns)	10.7	6.4

Note: ns means statistically non-significant

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

10.

CHAPITRE 10. SUPPORT MEASURES AND IMPLEMENTATION OF THE FIAVOTA PROGRAM

10.1. Summary

Different topics were addressed in "well-being spaces" and this exchange forum proves to be successful mainly when participants develop ownership of and put into practice the knowledge provided. This is the case for topics related to child health and nutrition, as well as family planning, which, when well understood, would increase by 6 percent the likelihood for children aged 6-23 months to eat at least from two food groups, and 3 percent the likelihood for couples to practice family planning.

Strong ownership is observed for health-related topics such as hygiene and young child feeding, which are well understood respectively by 84 percent and 76 percent of the participants in well-being spaces. Such ownership would increase the expected effects of productive spaces, including an increase in the likelihood that children under two years of age will consume at least two food groups (+6 percent). As regards early childhood development, well-being spaces have led to significant behavioral changes, mainly in parent-child interaction as illustrated by play and communication with the child (singing, telling a story, reading books). Thus, in 2018, playing with the child is a normal activity for 40 percent of female beneficiaries against only 27 percent in the control group.

Beneficiaries received a livelihood recovery to strengthen their resilience. Beneficiaries tend to choose mainly goat and sheep farming (87 percent) because of the climatic adaptability of these animals and the length of the activity cycle. The decision is made following a consultation between the head of household and his/her spouse in 42 percent of the cases, and without consultation in the household in 24 percent of cases. Decision-making in the household varies from a region to another, with greater cohesion among beneficiaries in the Anosy region. Once implemented, investments are exposed to the risks of animal diseases, which is the case for 42 percent of the beneficiaries. Nevertheless, almost all of them (95 percent) are planning an expansion of their activity through future transfers.

10.2. Introduction

259. This section assesses the implementation of the FIAVOTA program in general, and more specifically support measures. The program put in place "well-being spaces", which are meeting places where support measures[21] are implemented, addressing several topics related to human development, including health, early childhood development, economic inclusion or environmental protection. In addition, apart from the periodic transfers (every two months), each beneficiary household received a transfer called "livelihood recovery" to strengthen its resilience through the creation of income-generating activities.

260. This section first describes the beneficiaries' assessment of the knowledge they acquired through the well-being spaces and its effects on behavioral change. Second, it addresses their appreciation of the implementation of the livelihood recovery, and concludes with their general assessment of the FIAVOTA program.

10.3. Background and methodology

261. At the time of the midline survey data collection in June 2018, beneficiaries had received 17 transfers, one of which occurred when the FIAVOTA program shifted to conditional cash transfers (human development cash transfers). At the same time, mother-leaders were already very active in managing well-being spaces, where most of the topics planned were discussed with beneficiaries.

262. In addition, the livelihood recovery was coming to the end of its implementation cycle for many beneficiaries, since most of them have been able to start income-generating activities.

263. The results relating to well-being spaces were based on the appreciation of the topics discussed within beneficiary groups. The impact is analyzed

[21] Set of activities for beneficiaries of cash transfers to improve their social and economic living conditions (Manual for Implementation of Follow-up Measures, - FID)

using an independence tests[22], but also through an assessment of the level of behavioral change of households in comparison to the control group, using the behavior adoption stairway model. Individuals move through several "stages" before adopting a desired behavior, namely:

- Precontemplation during which people do not yet intend to change their behavior;
- Contemplation during which people become aware of the behavior change;
- Preparation during which the intention to change manifests itself;
- Action during which people actually modify their behavior; and
- Repetition during which people internalize new practices.

[22] Results reported in appendix

10.4. Well-being spaces

264. "Well-being spaces" are friendly meeting venues where human development topics are presented and discussed to promote personal growth. Beneficiaries are invited to participate on a monthly basis. The table below presents the topics that have been chosen by beneficiaries at the time of data collection agents' visits.

265. Handwashing and sanitation, followed by food and nutrition, are among the top topics discussed by beneficiaries. For both regions, 84 percent of beneficiaries reported having discussed topics related to handwashing and sanitation in general. The proportion reaches 92 percent in Anosy. Then the topics of young child feeding, nutrition and health are reported as discussed by 76 percent of the beneficiaries. For this topic, there is a higher number of beneficiaries concerned in Anosy (84 percent).

266. A big difference in terms of knowledge acquisition is observed between the two regions when it comes to the topic of income-generating activities: 72 percent of beneficiaries in Anosy have acquired knowledge on this topic against 46 percent in Androy.

Table 81: Topics discussed in well-being spaces according to beneficiaries

Unit: %

Topics discussed	Androy	Anosy	Overall
Hand washing and sanitation	83.2	92.3	84.0
Young child feeding, nutrition and health	74.8	84.5	75.6
Birth registration of children	70.4	60.4	69.6
The role of mother leaders	67.6	78.1	68.5
Children's education in general	65.2	85.5	67.0
Family planning	56.7	69.7	57.9
Role of women in the family and the community	55.0	70.1	56.3
Issuance of national ID cards	47.5	51.6	47.9
Income generating activities	45.6	72.4	47.9
Family budget management	42.8	66.0	44.8
Adolescent reproductive health	36.3	54.6	37.9
Development of self-confidence	35.8	47.5	36.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

267. Some of the topics discussed in well-being spaces are deemed less satisfactory compared to others in the way they were covered. It is mainly the case of topics relating to (i) birth registration, (ii) family planning and (iii) the role of mother-leaders, with 9 percent, 8 percent and 7 percent of beneficiaries being dissatisfied, respectively.

268. When considering regions, dissatisfaction rates were higher in Anosy than in Androy. Dissatisfaction rates exceeded 10 percent in Anosy for topics related to the role of mother-leaders and the role of women in the family and the community.

Table 82: Level of dissatisfaction by topic discussed at well-being spaces

Unit: %

Level of dissatisfaction by theme	Androy	Anosy	Overall
Birth registration of children	8.6	7.2	8.5
Family planning	8.0	8.6	8.1
Role of mother leaders	6.7	10.1	7.0
Role of women in the family and the community	6.8	10.6	7.2
Handwashing and sanitation	6.9	7.2	6.9
Young child feeding, nutrition and health	6.5	6.9	6.5
Family budget management	6.1	5.6	6.0
Children's education in general	5.7	6.6	5.8
Development of self-confidence	5.1	7.1	5.3
Income generating activities	4.9	9.0	5.3
Issuance of national ID cards	4.0	7.5	4.3
Adolescent reproductive health	4.9	3.9	4.8

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

269. Support measures implemented in well-being spaces were designed to have a multiplier effect on human development.

270. After the first year of implementation, well-being spaces generated results in two key areas: (i) family planning and (ii) feeding of children aged 6-23 months. As a reminder, the practice of family planning increased from 7 percent in 2016 to 9 percent in 2018. A notable difference is observed between households with a member having discussed family planning in well-being spaces and households with no member being aware of family planning. Beneficiary women are more likely to practice family planning when they are made aware of the subject in well-being spaces[23]. A significant difference of 3 percentage points is observed between the two groups, 12 percent vs. 9 percent.

[23] Chi-square independence test, provided in annex

Table 83: Proportion of women using family planning following a discussion on the topic in well-being spaces

Unit: %

		Do you practice something or do you use a method to avoid getting pregnant?		
		Yes	No	Total
Family planning as a topic discussed in the WBS	Yes	12.2	87.8	100.0
	No	8.6	91.4	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

271. With respect to nutrition, the effects of well-being spaces on the nutrition of young children under two were significant. The likelihood that children will eat from at least two food groups increases because their mothers have adopted child feeding and nutrition practices discussed in well-being spaces.

272. Nearly 66 percent of mothers who understood the topics of feeding and nutrition gave at least food from two groups to their children the day before data collection, compared to 60 percent for those who did not understand these topics.

Table 84: Proportion of mothers who gave food from at least two groups to children aged 6-23 months following a discussion on the topic in WBS

Unit: %

		Child from 6 to 23 months who consumed food from at least two groups		
		Yes	No	Total
Food and nutrition as a topic discussed in WBS	Yes	65.6	34.4	100.0
	No	59.9	40.1	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations

10.5. Behavioral change

10.5.1. Early childhood development

273. Early childhood development refers to the growth and development of a child from pregnancy to enrollment into primary school. The topic covers several aspects of human development from the youngest age to 6 years and include health, nutrition, motor, socio-emotional, cognitive and language development during this period of life. Special attention is paid to the situation of children in the 3-6-year age group.

274. Playing and communicating with the child are the first piece of advice most mothers retain. Half of beneficiary women reported that they became aware of the importance of these activities. A bigger proportion of women understood the need to communicate with children in the Anosy region (58 percent) compared to the Androy region (47 percent).

Table 85: Advice taken relating to early childhood

Unit: %

	Androy	Anosy	Overall
WITH CHILDREN FROM 0 TO 6 YEARS OLD			
Play with the child	50.0	49.1	49.9
Communicate with the child	46.9	57.9	48.8
WITH CHILDREN FROM 3 TO 6 YEARS OLD			
Play with other children	43.6	52.1	45.1
Show/help with washing hands/face on their own	42.6	55.1	44.8
Take walks with the child	37.7	51.3	40.0
Show/help how to hold/use cutlery on their own	37.5	48.1	39.3
Give tasks/activities to the child	33.4	43.3	35.1
Encourage the child in any activity	32.4	44.3	34.4
Do an activity with him/her	31.6	40.1	33.0
Teach him/ger the names of his body parts	28.6	46.9	31.7
Congratulate the child, even if the situation does not always lend to this	24.4	29.5	25.3
Show/help make drawings of shapes/scribbles alone	20.7	25.6	21.5
Tell a story to the child	19.6	25.1	20.6
Teach the child colors	19.4	22.3	19.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

275. Among topics relating to children development from 3-6 years, socialization (45 percent) and autonomy in hygiene practices (45 percent) are the most acquired among women. The understanding of these topics translated into action, namely walking with one's child (40 percent), using cutlery (39 percent) and entrusting activities to the child (35 percent). On the other hand, telling a story and learning colors are the least popular topics among mothers. Only around 20 percent of them reported they have become aware of both types of activity.

276. Although training topics are acquired, advice given is not necessarily put into practice as of yet, and the level of practice varies across topics. On

the one hand, the promotion of social skills and autonomy among children aged 3-6 years are becoming a habit for most mothers. More than two-thirds of mothers were found to make it a habit to teach their children to play with peers (71 percent), to eat with cutlery on their own (69 percent), to take a walk together (68 percent) and to wash their hands and faces on their own (64 percent). The adoption of topics such as practicing activities with children, reading stories or learning colors is also encouraging. On the other hand, the results obtained with respect to drawings and scribbles as well as congratulating children are mixed, since these have become habits for less than one out of two households.

Table 86: Behavioral change relating to early childhood development

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	
WITH CHILDREN FROM 0 TO 6 YEARS OLD						
Communicate with the child	0.6	2.6	6.8	28.4	61.6	100.0
Play with the child	1.9	7.2	6.7	31.3	52.9	100.0
WITH CHILDREN FROM 3 TO 6 YEARS OLD						
Play with other children	0.7	1.9	4.4	22.5	70.5	100.0
Show/help how to hold/use cutlery on their own	1.8	1.0	4.0	23.7	69.4	100.0
Take walk with the child	0.5	2.5	6.0	23.3	67.6	100.0
Show/help with washing hands/face on their own	1.0	1.8	5.4	27.0	64.9	100.0
Teach them the names of body parts	2.1	2.5	7.3	25.8	62.4	100.0
Give tasks/activities to the child	0.5	1.9	7.5	31.8	58.4	100.0
Tell a story to the child	4.1	4.6	10.6	25.3	55.5	100.0
Encourage the child in any activity	1.3	3.3	8.1	32.9	54.4	100.0
Do an activity with the child	1.3	1.7	10.3	33.0	53.7	100.0
Teach the child colors	5.7	2.8	10.1	30.9	50.6	100.0
Show/help make drawings of shapes/scribbles on their own	3.6	3.8	14.7	28.6	49.3	100.0
Congratulate the child, even if the situation does not always lend to this	3.3	3.3	9.3	39.1	44.9	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

277. Finally, it is important to note that there are very few mothers who have no intention to change their behaviors. This category of population is found for almost all topics, but especially for the following: (i) learning colors, 6 percent of mothers, (ii) telling a story, 4 percent of mothers, (iii) helping children make drawings of forms/ scribbles, 4 percent of mothers.

10.5.2. Parent-child interaction

278. This section focuses on parent-child relationship and monitoring children's education and health. The results of the analysis show that beneficiary women care about the education of their children, and much more about their health. It is the same for beneficiary men.

279. Monitoring children's health is one of the priorities of households. A strong commitment is observed among beneficiary households compared to control group households. Overall, this is a habitual behavior for 81 percent of female beneficiaries, and particularly among mother-leaders, at 83 percent. At a proportion of 73 percent, this behavior is also considered as widespread among male beneficiaries. Female and male beneficiaries alike, at a proportion of 70 percent, demonstrate much higher commitment than women in the control group.

280. Monitoring children's education has also become a habit, but to a lesser extent compared to health. In general, monitoring children's education is a habitual behavior in beneficiary households at the proportion of 61 percent of female beneficiaries and 54 percent of male beneficiaries. This activity is more intense among mother-leaders where the proportion rises to 78 percent. All the results among beneficiaries (women, mother-leaders, men) are significantly higher compared to those of women in the control group (36 percent).

Table 87: Behavioral change relating to parent-child interaction

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	Total
Female beneficiaries: - Monitor children's education	6.5	10.5	4.6	17.3	61.0	100.0
- Monitor children's health	1.5	1.8	2.3	13.0	81.5	100.0
- Play with children	19.3	14.1	11.3	14.9	40.5	100.0
Mother leaders: - Monitor children's education	3.0	4.7	0.5	14.2	77.6	100.0
- Monitor children's health	3.5	1.5	0.0	12.3	82.7	100.0
- Play with children	7.6	5.4	13.4	18.2	55.3	100.0
Female control: - Monitor children's education	9.5	13.4	11.8	28.9	36.3	100.0
- Monitor children's health	3.4	1.4	1.4	24.0	69.7	100.0
- Play with children	25.9	13.3	8.9	24.9	27.0	100.0
Male beneficiaries: - Monitor children's education	9.9	10.8	6.5	18.4	54.4	100.0
- Monitor children's health	2.4	3.9	2.6	17.8	73.3	100.0
- Play with children	29.2	12.9	11.5	13.7	32.7	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Parent-child interaction (playing with children) seems most common among mother-leaders, with 55 percent of them practicing it against 41 percent of female beneficiaries. This activity has become a consistent practice. These proportions are much higher than among women in the control group. As the adoption of this behavior is not yet widespread, it is important to note that nearly one in five women (19 percent) is still at the no action or precontemplation stages and should be targeted with further awareness-raising. As for the control group, 26 percent of women are in this category.

10.5.3. Conjugal relationship[24]

281. Conjugal relationship seems much stronger among beneficiary households compared to control group households, and even more so among mother-leaders. Conjugal relationship is assessed through two aspects in this section, namely exchange within the couple and reciprocal care of physical appearance. In the first case, many women beneficiaries (74 percent) reported that exchanging with their spouse has become a habit. However, this situation is much more common among mother-leaders, with a proportion of 82 percent.

282. As far as male beneficiaries of the program are concerned, their opinions converge with those of their spouses. Among them, 14 percent have initiated dialogue within the couple, and 68 percent of them consider that such exchanges are already an acquired behavior in everyday life.

[24] Other indicators relating to conjugal relationship can be assessed in the chapter on "Female's place in the South and domestic violence"

Table 88: Behavioral change relating to conjugal relationship in 2018

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	Total
Female beneficiaries:						
- Talk to or discuss with your spouse	2.6	2.9	2.9	17.6	74.0	100.0
- Look after your husband's appearance	22.9	11.4	12.0	15.1	38.6	100.0
Mother leader:						
- Talk to or discuss with your spouse	2.7	0.7	4.9	9.6	82.2	100.0
- Look after your husband's appearance	12.4	7.4	15.6	15.7	48.9	100.0
Female control:						
- Talk to or discuss with your spouse	22.0	1.8	0.7	20.0	55.4	100.0
- Look after your husband's appearance	50.6	11.0	9.8	11.2	17.4	100.0
Male beneficiaries:						
- Talk to or discuss with your wife	3.7	2.5	4.8	20.7	68.4	100.0
- Look after your wife's appearance	24.2	14.3	13.3	14.1	34.1	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

283. In the control group, especially among women, it is noted that exchanges and discussions within the couple take place at a lesser extent compared to beneficiary households. Only one in two women usually speaks with her spouse.

Taking care of the spouse's physical appearance remains an unacquired behavior for most beneficiaries, whether women or men. Moreover, by way of example, one in five women is at the stage of precontemplation, i.e. at the stage where she has no intention to adopt the behavior. Nevertheless, this seems more encouraging if we consider the situation of the control group, where one in two women is at this stage.

10.5.4. Economic Inclusion

284. Many beneficiaries are in the precontemplation stage, but when compared to the control group, this reveals a positive effect of the program. Behavioral change towards economic inclusion is assessed in this section based on the fact that individuals are running an independent economic activity or contributing to a family production unit.

285. In either the first or the second case, 58 percent of women and 60 percent of men reported they had no intention of running or creating an economic activity. A large proportion of mother-leaders also find themselves in the precontemplation stage, although the situation is less tangible (52 percent).

286. In the control group, the situation seems much more difficult. Eight out of ten women reported they do not intend to run an economic activity.

Table 89: Behavioral change relating to economic inclusion

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	Total
Female beneficiaries:						
- Run an independent activity	57.7	4.2	6.8	12.8	18.6	100.0
- Help in a family production unit	43.8	4.4	4.2	15.9	31.7	100.0
Mother leaders:						
- Run an independent activity	52.1	1.4	11.9	16.0	18.6	100.0
- Help in a family production unit	39.7	8.5	10.8	10.8	30.3	100.0
Female control:						
- Run an independent activity	79.0	5.0	5.9	1.9	8.2	100.0
- Help in a family production unit	71.6	3.6	3.0	7.6	14.1	100.0
Male beneficiaries:						
- Run an independent activity	60.5	5.2	8.9	12.0	13.4	100.0
- Help in a family production unit	47.7	4.7	3.7	16.9	27.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Beneficiaries are much more likely to contribute to a family production Unit than to run an economic activity. On average, one in three beneficiaries reported that they already have this daily commitment on their agenda. In the control group, barely one in seven women have the habit of engaging into economic activities.

10.5.5. Community involvement

287. Social involvement is very significant among beneficiary households compared to control group households. Participation in community activities and association meetings are the two forms of community involvement discussed in this section. The difference between the beneficiary group and the control group is very clear: more than 59 percent of female beneficiaries, 57 percent of mother-leaders and 68 percent of male beneficiaries are usually involved in community activities. Among control group households, only 24 percent of women are regularly engaged in community activities.

288. Similarly, participation in association meetings is a habit among program beneficiaries, especially women, whether they are mother-leaders or not. Among them, 59 percent reported doing so, against 26 percent of women in the control group.

Table 90: Behavioral change relating to community involvement in 2018

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	Total
Female beneficiaries: Participate in community activities	4.2	11.9	3.1	21.7	59.1	100.0
Participate in association meetings	3.3	4.0	2.9	24.4	65.5	100.0
Mother leader: Participate in community activities	3.0	17.0	2.2	21.1	56.7	100.0
Participate in association meetings	2.7	4.3	4.8	29.9	58.3	100.0
Female control: Participate in community activities	23.7	12.7	9.8	29.9	23.9	100.0
Participate in association meetings	22.4	11.8	12.7	27.6	25.6	100.0
Male beneficiaries: Participate in community activities	3.2	5.5	3.3	19.9	68.0	100.0
Participate in association meetings	21.2	5.6	4.6	25.5	43.1	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

10.5.6. Environmental commitment

289. Two aspects are to be observed here: keeping the house clean and preserving the environment. Although maintaining overall cleanliness is an everyday behavior for most women, FIAVOTA beneficiary women are more committed to preserving the environment than women in the control group.

290. In terms of keeping the house clean, three out of four female beneficiaries consider this activity as a habit. This commitment is less intense among mother-leaders (69 percent), certainly because of the responsibilities they have committed to under the FIAVOTA program. On the other hand, mother-leaders are more committed to preserving their environment than other female beneficiaries, at 78 percent against 54 percent.

291. For women in the control group, the commitment to maintain cleanliness of the house and the environment is lower, at 63 percent and 41 percent respectively. In addition, 12 percent of control group women do not intend to keep their environment clean.

292. As far as men are concerned, particularly beneficiaries, their commitment to environmental preservation is still a challenge. Among them, 29 percent and 17 percent admitted they never intended to maintain cleanliness of their house and their environment respectively. Only 19 percent and 2 percent have started to engage in such activities and only one in four men has adopted them as a habit.

Table 91: Behavioral change relating to environmental commitment

Unit: %

	No, I do not intend	No, but I am aware that it is necessary	No, I intend, but I cannot do it yet	Yes, I'm starting to get used to it	Yes, it is becoming a habit	Total
Female beneficiaries:						
- Keep the house clean	3.1	2.4	5.8	14.0	74.8	100.0
- Ensure the cleanliness of the environment	3.6	10.2	6.7	25.6	53.9	100.0
Mother leader:						
- Keep the house clean	0.0	3.5	0.8	26.4	69.3	100.0
- Ensure the cleanliness of the environment	3.0	4.7	0.5	14.2	77.6	100.0
Female control:						
- Keep the house clean	7.5	1.5	2.1	26.1	62.9	100.0
- Ensure the cleanliness of the environment	11.7	7.3	13.0	26.8	41.2	100.0
Male beneficiaries:						
- Keep the house clean	29.6	15.7	10.2	19.2	25.3	100.0
- Ensure the cleanliness of the environment	16.8	13.1	7.2	27.4	35.5	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

10.6. Livelihood recovery

293. The FIAVOTA program provides financial support named "livelihood recovery" to beneficiary households in order to strengthen their resilience through the promotion of income-generating activities. This financial support is preceded by a preparatory phase that starts with the identification of projects. Training sessions are conducted afterwards for beneficiary households, covering topics such as farming techniques, financial management, family savings, farm operation, farm management, methods for monitoring activities once implemented.

294. This section addresses the assessment of the various steps taken by the beneficiaries in implementing the livelihood recovery, from project identification and set-up to activity monitoring. Finally, the study made it possible to assess households' prospects in terms of business development.

295. Goat farming is the preferred activity for many beneficiaries. During data collection visits, almost all FIAVOTA beneficiaries (99 percent) have started their own income-generating activity, 96 percent of which are in livestock farming. Of all households benefiting from the livelihood recovery, 68 percent have invested in goat farming against 18 percent in sheep farming.

296. Depending on the regions, in addition to goat farming, it is noted that many beneficiaries in Anosy have invested in poultry farming (chicken farming), while those in Androy rather chose sheep farming.

Table 92: Beneficiaries' choices by region

Unit: %

Type of livestock	Androy	Anosy	Overall
Goat	68.0	71.2	68.5
Sheep	20.0	8.9	18.1
Local hens	8.1	17.4	9.7
Other	3.9	2.5	3.7
Total	100.0	100.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

297. When considering the household profile, a few special cases are worth highlighting although, overall, the household profile is not really a determining factor in the investment choice. Among households of 3 or fewer people, 77 percent opted for goat farming compared to larger households. Poultry was most frequently chosen among single-parent households (20 percent).

Table 93: Choice of beneficiaries according to their profile

Unit: %

Type of livestock	Goat	Sheep	Local hens	Other	Total
TYPE OF HOUSEHOLD					
Male single parent	57.6	22.2	20.2	0.0	100.0
Female single parent	68.6	19.3	8.0	4.1	100.0
Extended or polygamous	71.7	18.4	8.7	1.2	100.0
Nuclear	68.0	18.6	9.8	3.6	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	76.9	15.5	5.7	1.9	100.0
4 to 6 individuals	68.1	18.9	10.6	2.4	100.0
7 to 10 individuals	66.0	18.6	10.2	5.2	100.0
More than 10 individuals	69.1	15.9	9.3	5.7	100.0
GENDER OF THE HEAD OF HOUSEHOLD					
Male	68.0	18.4	10.6	3.0	100.0
Female	69.5	17.6	8.0	4.9	100.0
AGE OF THE HEAD OF HOUSEHOLD					
Under 20 years	73.7	23.2	3.1	0.0	100.0
20 to 24 years	70.7	19.3	8.6	1.4	100.0
25 to 29 years	71.7	20.6	6.9	0.8	100.0
30 to 44 years	70.2	15.9	9.8	4.1	100.0
45 to 59 years	65.8	20.2	10.6	3.4	100.0
60 years and over	64.4	17.3	11.3	7.0	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD					
No education	68.6	19.1	10.5	1.8	100.0
Primary	66.8	19.8	8.7	4.7	100.0
Secondary-University	70.7	13.4	9.2	6.7	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey. authors' calculations.

298. The choice of investment projects by beneficiary households was determined by factors associated with running the activity. The results show that the three main factors influencing their choice are:

- Climate adaptation (44 percent);
- Duration of activity cycle (22 percent); and
- Time required for follow-up (8 percent)
- These factors reflect the high vulnerability of households at the time they selected their projects.

Table 94 : Main reasons for beneficiaries' choice of investment projects

Unit: %

Main reasons for the choice of project	Androy	Anosy	Overall
Suitability to the region	45.1	39.8	44.2
Short cycle activity	22.1	24.4	22.5
Less follow-up	8.0	8.2	8.0
To save	7.6	9.3	7.9
Existence of outlets	3.8	6.6	4.3
Project cost	3.7	4.5	3.8
Did not have other choices	8.1	5.2	7.6
Other	1.5	2.0	1.6
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

299. Customs and traditions prevail among households: the decision on the choice of the project was not routinely made with the involvement of spouses. Less than one-half of beneficiary households (42 percent) consulted each other as partners when making decision on the use of the livelihood recovery. In Anosy, despite a higher proportion, at least 20 percent of choices were made unilaterally without the spouse's consent. On the other hand, in Androy, 20 percent of households consulted a third person in the choice of the investment project.

Table 95: Household consultation in the choice of project by region

Unit: %

People consulting one another	Androy	Anosy	Overall
Head of household and spouse	40.1	49.8	41.7
Head of household/spouse alone	24.3	20.2	23.6
With a person outside the household	19.8	11.9	18.4
All members of the household	4.6	1.9	4.1
Head of household/spouse and descendants	2.3	7.7	3.3
Head of household/spouse and ascendants	6	3.2	1.1
Not concerned	8.3	5.4	7.8
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

300. In addition to customs and traditions, consultations within the household depend partly on the household's profile. The results show that a female head of a single parent household consults less with other household member (ascendant or descendant) or a third person outside the household, compared to a male head of a single-parent household. In 61 percent of cases, female heads of a single-parent household decide alone when choosing an activity to undertake.

301. In addition, the higher the education level of the head of household, the less the couple consults with each other. In households headed by an individual with no education, discussions with the spouse take place in 45 percent of the cases. But when the head of household has secondary education or more, discussions take place only in 34 percent of households.

Table 96: Household discussions when choosing the project according to the household profile

Unit: %

	Head of Household and Spouse	Head of Household/ spouse alone	With a person outside the household	All members of the household	Head of Household/ spouse and descendants	Head of Household/ spouse and ascendants	Not concerned	Total
TYPE OF HOUSEHOLD								
Male single parent	-	47.0	20.1	5.2	9.7	11.2	6.7	100.0
Female single parent	-	60.9	16.2	3.1	8.5	1.5	9.9	100.0
Extended or polygamous	47.0	14.5	22.2	8.0	2.6	0.0	5.6	100.0
Nuclear	60.2	7.9	17.5	4.5	1.5	0.4	8.0	100.0
HOUSEHOLD SIZE								
1 to 3 individuals	16.4	48.3	13.6	3.4	1.3	2.3	14.9	100.0
4 to 6 individuals	40.9	25.2	21.6	2.9	2.5	1.1	5.9	100.0
7 to 10 individuals	50.1	16.3	17.3	4.8	3.5	0.9	7.2	100.0
More than 10 individuals	47.0	10.5	15.3	8.7	9.4	0.0	9.2	100.0
GENDER OF THE HEAD OF HOUSEHOLD								
Male	61.9	4.8	19.1	4.7	1.5	0.6	7.4	100.0
Female	4.3	58.5	17.2	3.1	6.5	2.0	8.5	100.0
AGE OF THE HEAD OF HOUSEHOLD								
Under 20 years	11.6	31.1	23.8	5.5	0.0	16.6	11.3	100.0
20 to 24 years	22.9	38.9	18.1	3.3	0.0	3.3	13.6	100.0
25 to 29 years	39.3	25.0	24.1	3.7	0.3	1.3	6.4	100.0
30 to 44 years	46.1	22.9	16.2	3.8	2.1	0.5	8.4	100.0
45 to 59 years	45.3	18.7	20.0	3.7	4.8	1.0	6.4	100.0
60 years and over	37.5	24.1	17.1	6.4	8.0	0.4	6.5	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD								
No education	45.5	17.8	18.8	4.6	4.0	0.9	8.4	100.0
Primary	40.6	25.4	18.1	3.4	2.6	0.7	9.3	100.0
Secondary-university	34.2	35.0	18.0	3.9	2.5	2.1	4.3	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

302. Beneficiaries faced risks associated with animal diseases. Any investor may be faced with technical difficulties in the implementation of a project. In the case of the FIAVOTA beneficiary households, particularly those who opted for livestock farming, cattle were mainly exposed to the risks of disease. Among households, 42 percent reported having had to deal with such problems, 20 percent of which were severely affected.

303. By region, the households in Anosy appear to face much more difficulties, as there are many more cases of households in great difficulty (28 percent) in the face of diseases that may affect animals.

Table 97: Proportion of households faced with difficulties associated with animal diseases, by region

Unit: %

Proportion of households with animal disease difficulties	Androy	Anosy	Overall
Not at all	60.0	48.8	58.1
Yes, a bit	11.0	13.1	11.4
Yes, fairly	10.8	10.4	10.7
Yes, a lot of difficulty	18.1	27.7	19.8
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

304. When considering the household's profile, the difficulties encountered affected more seriously male single-parent households and households headed by young adults. In the first case, one in three households (34 percent) complained that they were in great difficulty because of diseases that affected animals. In the second case, 40 percent were faced with these problems, partly because their experience and knowledge are still limited, as reflected by the decreasing proportions of households concerned by this issue as the heads of household's level of education increases.

Table 98 : Proportion of households faced with difficulties associated with animal diseases, by household profile

Unit: %

	Not at all	Yes, a bit	Yes, quite	Yes, a lot of difficulty	Total
HOUSEHOLD TYPE					
Male single parent	48.8	9.4	7.7	34.1	100.0
Female single parent	57.9	9.6	11.7	20.8	100.0
Extended or polygamous	54.2	10.7	9.2	26.0	100.0
Nuclear	58.8	12.4	10.0	18.8	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	53.2	9.6	9.1	28.1	100.0
4 to 6 individuals	58.6	13.3	10.8	17.4	100.0
7 to 10 individuals	59.2	10.3	11.8	18.7	100.0
More than 10 individuals	58.1	9.4	8.1	24.4	100.0
GENDER OF THE HEAD OF HOUSEHOLD					
Male	58.9	12.2	10.7	18.2	100.0
Female	56.6	9.9	10.8	22.8	100.0
AGE OF THE HEAD OF HOUSEHOLD					
Under 20 years	44.4	13.4	3.0	39.1	100.0
20 to 24 years	53.8	7.7	14.3	24.2	100.0
25 to 29 years	56.3	14.1	10.3	19.3	100.0
30 to 44 years	60.7	12.0	10.5	16.7	100.0
45 to 59 years	58.7	11.2	9.6	20.5	100.0
60 years and over	54.6	9.5	12.5	23.4	100.0
EDUCATION LEVEL OF THE HOUSEHOLD HEAD					
No education	56.1	11.6	11.4	20.9	100.0
Primary	61.8	12.1	10.3	15.7	100.0
Secondary-university	57.8	9.9	9.8	22.5	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

305. Mother-leaders had some difficulty completing monitoring booklets. Difficulties in filling out monitoring booklets are particularly related to the level of illiteracy and the technical content of booklets. Difficulty in reading and/or writing concerns 23 percent of mother-leaders. The proportion reaches 26 percent among mother-leaders in Anosy.

306. With respect to the form, one in five mother-leaders mentioned some difficulties, including the use of poorly understood jargons, lack of instructions on how to fill the booklets, low visibility of the writing and the small size of the boxes.

Table 99 : Difficulties in filling monitoring booklets

Unit: %

Difficulties	Androy	Anosy	Overall
Illiteracy	22.1	26.1	23.0
Poorly understood jargons	16.8	30.0	19.6
Lack of indications	14.5	30.4	17.9
Readability of the writings	13.1	29.8	16.7
Size of boxes	13.4	27.2	16.4

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

307. Despite these small difficulties, filling out the monitoring booklet has become a habit for 58 percent of mother-leaders and their groups of beneficiaries in general. However, a difference is noted between the two regions, with a higher proportion in Androy (62 percent) against 41 percent in Anosy.

Table 100 : Trends in behavioral change relating to filling out monitoring booklets

Unit: %

Trends in behavior change	Androy	Anosy	Overall
No, I do not intend	5,0	15,8	7,3
No, but I am aware that it is necessary	3,9	5,8	4,3
No, I intend, but I cannot do it yet	6,1	9,3	6,8
Yes, I'm starting to get used to it	22,8	28,1	23,9
Yes, it is becoming a habit	62,2	41,0	57,7
TOTAL	*100,0*	*100,0*	*100,0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

308. Regarding prospects, as shown in the table below, almost all beneficiaries (95 percent) are considering expanding their activities. Motivation is much higher in Androy than in Anosy. Nevertheless, at least 80 percent of households across both regions are considering financing the expansion of their activities through future transfers from the program.

Table 101: Proportion of beneficiaries who are considering expanding their activities

Unit: %

		Androy	Anosy	Overall
Intention to expand their activities/ launch new activity	Yes	95.7	90.1	94.8
	No	4.3	9.9	5.2
	Total	100.0	100.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

There is a need to intensify communication among beneficiaries. Information about the FIAVOTA program is lacking among beneficiaries. For 81 percent of beneficiaries, the program is funded mainly by FID. One in four beneficiaries thinks the donor is the World Bank, and one in five thinks it is the Government. Beneficiaries' knowledge about donors varies only slightly across regions.

Table 102: Program donors according to beneficiaries

Unit: %

Donors of the program	Androy	Anosy	Overall
Government	18.3	18.3	18.3
World Bank	28.0	13.0	25.4
UNICEF	7.8	17.2	9.4
FID	79.4	88.1	80.9
Other	1.3	0.9	1.2
Does not know	13.7	7.0	12.5

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

309. More than three-quarters of households agree or strongly agree with the targeting mechanism. Four out of ten households strongly agree with the targeting mechanism used by the FIAVOTA program, which consists in selecting as beneficiary households with children under 5 enrolled in nutrition sites in the 39 communes identified as most affected by the El Nino phenomenon. Likewise, four out of ten households agree on this targeting mechanism. It should be pointed out, however, that less than two out of ten households disagree, the majority of which are in the Androy region.

Table103: Beneficiaries' approval of the FIAVOTA selection criterion

Unit: %

FIAVOTA Selection Criteria	Androy	Anosy	Overall
Strongly agree	36.4	45.6	38.4
Agree	34.5	39.7	35.6
Does not agree or disagree	9.1	7.2	8.7
Disagree	7.4	4.9	6.9
Strongly disagree	12.7	2.6	10.5
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

10.7. Annexes

10.7.1. Statistical tests

310. Independence test on learning the topic of family planning in well-being spaces and the practice of family planning:

Pearson Chi Square Tests		
Do you practice something or do you use a method to prevent pregnancy?		
Family planning	Chi square	115,942
	Df	1
	Sig.	, 000 *, a
Results are based on non-empty rows and columns in each innermost suitable.		
*. The Chi square statistic is significant at the 0.05 level.		

a. Some cell counts in this suitable are not integers. They were rounded to the nearest integer before the computation of Chi-square test.

311. Independence test on learning topic of feeding and nutrition in well-being spaces, and the consumption of food from at least two groups among children under two years of age:

Pearson chi square Tests		
At least 2 groups		
Young child feeding, nutrition and health	Chi square	20,962
	Df	1
	Sig.	, 000 *
Results are based on non-empty rows and columns in each innermost suitable.		
*. The Chi-square statistic is significant at the 0.05 level.		

10.7.2. Level of satisfaction of beneficiaries on the implementation of well-being spaces (WBS)

Table 104: Level of satisfaction with the material used in WBS

Unit: %

	NOT AT ALL	YES, A BIT	YES, FAIRLY	YES, VERY SATISFIED	TOTAL
Overall	33,3	14,7	23,9	28,1	100,0
REGION					
Androy	29.6	14.8	24.8	30.7	100.0
Anosy	50.7	14.3	19.5	15.6	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	32.0	17.4	25.5	25.1	100.0
4 to 6 individuals	35.0	14.4	22.4	28.2	100.0
7 to 10 individuals	33.0	13.0	24.6	29.4	100.0
More than 10 individuals	27.7	19.9	25.8	26.6	100.0

	NOT AT ALL	YES, A BIT	YES, FAIRLY	YES, VERY SATISFIED	TOTAL
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	37.7	17.9	26.5	18.0	100.0
20 to 24 years	31.5	19.3	26.6	22.6	100.0
25 to 29 years	33.2	17.1	22.8	27.0	100.0
30 to 44 years	32.1	13.1	25.8	29.1	100.0
45 to 59 years	34.5	16.1	20.0	29.4	100.0
60 years and over	35.0	12.0	25.0	28.0	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	36.6	14.0	22.4	27.0	100.0
Primary	33.4	16.2	24.9	25.5	100.0
Secondary-University	25.0	14.5	26.3	34.2	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 105: Level of satisfaction with the frequency of WBS

Unit: %

	NO, NOT AT ALL SATISFACTORY	YES, A LITTLE SATISFACTORY	YES, FAIRLY SATISFACTORY	YES, VERY SATISFACTORY	TOTAL
Overall	6.2	19.2	39.1	35.4	100.0
REGION					
Androy	6.6	19.6	38.6	35.2	100.0
Anosy	2.7	15.5	44.4	37.4	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	6.6	21.6	38.7	33.1	100.0
4 to 6 individuals	9.0	21.6	36.9	32.5	100.0
7 to 10 individuals	3.6	17.0	38.6	40.8	100.0
More than 10 individuals	4.2	13.9	53.9	28.1	100.0
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	0.0	21.5	66.5	12.0	100.0
20 to 24 years	7.6	22.8	40.1	29.4	100.0
25 to 29 years	4.6	21.6	36.9	36.9	100.0
30 to 44 years	5.7	18.9	39.3	36.1	100.0
45 to 59 years	8.4	15.6	37.0	39.0	100.0
60 years and over	5.1	23.0	41.8	30.1	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	4.9	20.8	36.7	37.6	100.0
Primary	4.5	21.4	40.9	33.2	100.0
Secondary-University	10.2	14.4	41.4	34.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 106: Level of satisfaction with WBS service hours

Unit: %

	NO, NOT AT ALL SATISFACTORY	YES, A LITTLE SATISFACTORY	YES, FAIRLY SATISFACTORY	YES, VERY SATISFACTORY	TOTAL
Overall	2.2	16.3	43.2	38.4	100.0
REGION					
Androy	2.1	16.7	42.8	38.5	100.0
Anosy	3.3	11.9	47.3	37.5	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	3.9	15.8	45.0	35.3	100.0
4 to 6 individuals	3.2	17.4	42.4	36.9	100.0
7 to 10 individuals	1.0	15.6	41.4	42.0	100.0
More than 10 individuals	0.0	14.3	52.2	33.5	100.0
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	. 0	18.1	58.3	23.7	100.0
20 to 24 years	3.7	12.4	55.4	28.4	100.0
25 to 29 years	1.4	18.6	38.0	42.0	100.0
30 to 44 years	2.1	15.8	42.1	40.0	100.0
45 to 59 years	2.8	12.2	43.4	41.6	100.0
60 years and over	1.5	24.9	42.9	30.7	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	2.4	18.9	38.2	40.5	100.0
Primary	2.0	16.5	45.0	36.4	100.0
Secondary-University	2.1	11.6	49.5	36.9	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 107: Level of satisfaction with the facilitation provided by mother-leaders in WBS

Unit: %

	NO, NOT AT ALL SATISFACTORY	YES, A LITTLE SATISFACTORY	YES, FAIRLY SATISFACTORY	YES, VERY SATISFACTORY	TOTAL
Overall	1.7	12.8	43.1	42.4	100.0
REGION					
Androy	1.7	12.8	42.8	42.6	100.0
Anosy	1.9	12.2	46.5	39.4	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	3.9	13.6	43.0	39.4	100.0
4 to 6 individuals	2.1	14.3	42.8	40.9	100.0
7 to 10 individuals	0.9	11.0	42.4	45.7	100.0
More than 10 individuals	0.0	12.1	49.2	38.8	100.0
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	0.0	14.4	54.9	30.7	100.0
20 to 24 years	3.8	14.0	43.8	38.4	100.0
25 to 29 years	1.9	14.4	40.3	43.4	100.0
30 to 44 years	1.7	10.2	43.9	44.3	100.0
45 to 59 years	1.1	10.7	44.0	44.2	100.0
60 years and over	1.8	22.4	40.5	35.3	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	2.2	15.0	40.5	42.3	100.0
Primary	1.4	11.0	47.1	40.6	100.0
Secondary-University	1.2	11.0	43.4	44.4	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 108: Level of satisfaction with group activity in WBS

Unit: %

	NO, NOT AT ALL SATISFACTORY	YES, A LITTLE SATISFACTORY	YES, FAIRLY SATISFACTORY	YES, VERY SATISFACTORY	TOTAL
Overall	1.6	17.4	43.7	37.2	100.0
REGION					
Androy	1.5	17.8	43.5	37.2	100.0
Anosy	2.8	13.4	46.5	37.2	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	4.4	16.7	45.0	33.9	100.0
4 to 6 individuals	1.6	20.3	43.7	34.4	100.0
7 to 10 individuals	1.1	15.7	42.0	41.2	100.0
More than 10 individuals	0.0	12.2	50.2	37.7	100.0
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	0.0	21.2	63.7	15.1	100.0
20 to 24 years	3.8	16.2	52.9	27.1	100.0
25 to 29 years	1.8	21.0	40.2	36.9	100.0
30 to 44 years	1.6	16.4	42.5	39.5	100.0
45 to 59 years	1.7	15.2	42.8	40.3	100.0
60 years and over	0.5	22.1	46.1	31.3	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	2.1	20.6	39.1	38.2	100.0
Primary	1.3	15.1	46.8	36.8	100.0
Secondary-University	1.2	14.7	48.2	35.9	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

10.7.3. Opinions and views of beneficiaries on the FIAVOTA program and its implementation

Table 109: Beneficiaries' sources of information on the FIAVOTA program

Unit: %

	Word of mouth	Tam-tam	Posters, flyers	Local media	Public meeting	Local authorities
Overall	37.6	2.6	4.6	3.1	57.9	48.5
REGION						
Androy	39.2	3.0	4.8	2.8	57.2	48.0
Anosy	30.0	4	3.5	4.1	60.9	50.6
HOUSEHOLD SIZE						
1 to 3 individuals	38.7	1.8	6.7	3.6	61.0	43.3
4 to 6 individuals	38.4	1.8	3.5	2.9	56.7	45.9
7 to 10 individuals	36.8	3.1	4.3	2.6	57.0	52.2
More than 10 individuals	35.8	5.4	8.3	4.9	63.2	52.7
AGE OF HEAD OF HOUSEHOLD						
Under 20 years	35.4	1.1	2.7	0.0	54.4	57.1
20 to 24 years	37.1	3.5	6.5	4.2	62.0	40.5
25 to 29 years	32.1	2.4	2.4	3.1	62.8	46.2
30 to 44 years	40.0	2.7	4.7	2.7	53.8	49.5
45 to 59 years	36.7	2.1	4.0	3.8	60.0	49.9
60 years and over	37.8	2.7	6.3	2.2	59.4	48.4
EDUCATION LEVEL OF HEAD OF HOUSEHOLD						
No education	38.1	1.5	3.9	2.4	59.3	47.4
Primary	34.4	3.4	3.2	2.8	53.7	49.4
Secondary-University	40.7	4.0	8.1	5.0	59.9	49.9

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 110: Knowledge of beneficiaries on the payment frequency used by the FIAVOTA program

Unit: %

	In 2 weeks	In one month	In two months	In more than 2 months	Never again	Do not know	Total
Overall	**8.9**	**24.7**	**7.3**	**2.3**	**1.8**	**55.1**	**100.0**
REGION							
Androy	9.5	26.4	4.7	1.5	2.0	55.9	100.0
Anosy	5.8	17.0	19.9	5.9	6	50.8	100.0
HOUSEHOLD SIZE							
1 to 3 individuals	10.2	25.7	6.7	2.6	1.3	53.5	100.0
4 to 6 individuals	8.2	26.3	7.4	2.6	1.4	54.2	100.0
7 to 10 individuals	8.6	22.5	7.6	1.8	2.1	57.3	100.0
More than 10 individuals	11.3	26.0	6.1	2.8	2.7	51.2	100.0
AGE OF HEAD OF HOUSEHOLD							
Under 20 years	1.5	19.3	7.7	2.9	. 0	68.5	100.0
20 to 24 years	13.2	23.6	9.4	2.9	1.9	49.0	100.0
25 to 29 years	6.4	27.7	4.8	3.2	9	57.1	100.0
30 to 44 years	9.1	25.9	7.0	1.6	1.4	54.9	100.0
45 to 59 years	8.8	23.1	8.5	3.2	2.2	54.1	100.0
60 years and over	8.6	23.0	6.7	1.3	2.7	57.7	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD							
No education	7.6	25.5	5.9	2.2	2.0	56.8	100.0
Primary	7.9	24.2	8.4	2.3	1.6	55.5	100.0
Secondary-University	13.3	23.5	9.2	2.5	1.5	50.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 111: Beneficiaries' awareness of the duration of the program

Unit: %

	One month	Six months	During a school year	While my children are in school	Throughout the rest of my life	Does not know	In two years	In three years	Total
Overall	1.8	1.0	3.3	2.2	2.7	34.1	30.6	24.4	100.0
REGION									
Androy	2.0	8	3.5	2.6	3.2	35.0	30.7	22.2	100.0
Anosy	0.7	1.5	2.1	4	. 1	29.6	30.1	35.4	100.0
HOUSEHOLD SIZE									
1 to 3 individuals	1.0	9	4.5	2.1	1.3	33.1	34.1	23.1	100.0
4 to 6 individuals	1.4	1.3	3.3	1.8	2.9	33.4	30.6	25.3	100.0
7 to 10 individuals	2.7	0.6	2.8	2.4	2.5	35.7	30.3	23.0	100.0
More than 10 individuals	0.8	1.1	3.3	3.6	4.6	31.6	25.8	29.2	100.0
AGE OF HEAD OF HOUSEHOLD									
Under 20 years	0.0	0.0	0.0	1.7	5.3	29.9	39.5	23.6	100.0
20 to 24 years	0.0	1.0	4.2	1.7	4.3	33.4	32.2	23.2	100.0
25 to 29 years	1.7	1.1	2.9	1.5	1.3	29.6	36.9	25.1	100.0
30 to 44 years	1.6	1.1	3.2	1.7	2.4	34.3	29.5	26.1	100.0
45 to 59 years	2.0	0.8	4.3	2.6	2.3	32.7	30.5	24.8	100.0
60 years and over	3.2	0.7	1.5	3.7	3.9	40.2	27.1	19.6	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD									
No education	2.2	0.5	2.2	2.3	2.6	39.7	29.0	21.6	100.0
Primary	2.0	1.4	5.2	2.0	2.7	33.1	28.3	25.4	100.0
Secondary-University	0.7	1.6	3.1	2.3	2.7	21.9	37.6	30.0	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 112: Payment to a third party to receive transfers

Unit: %

	YES	NO	TOTAL
Overall	7.9	92.1	100.0
REGION			
Androy	8.2	91.8	100.0
Anosy	6.5	93.5	100.0
HOUSEHOLD SIZE			
1 to 3 individuals	8.4	91.6	100.0
4 to 6 individuals	7.7	92.3	100.0
7 to 10 individuals	7.7	92.3	100.0
More than 10 individuals	8.9	91.1	100.0
AGE OF HEAD OF HOUSEHOLD			
Under 20 years	11.2	88.8	100.0
20 to 24 years	8.0	92.0	100.0
25 to 29 years	9.1	90.9	100.0
30 to 44 years	6.5	93.5	100.0
45 to 59 years	8.8	91.2	100.0
60 years and over	8.7	91.3	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD			
No education	7.3	92.7	100.0
Primary	8.4	91.6	100.0
Secondary-University	8.5	91.5	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 113: Existence of risks and problems encountered by beneficiaries on payment day

Unit: %

	YES	NO	TOTAL
Overall	6,8	93,2	100,0
REGION			
Androy	7.0	93.0	100.0
Anosy	6.2	93.8	100.0
HOUSEHOLD SIZE	***7.9***	***92.1***	***100.0***
1 to 3 individuals	6.2	93.8	100.0
4 to 6 individuals	8.2	91.8	100.0
7 to 10 individuals	2.1	97.9	100.0
More than 10 individuals			
AGE OF HEAD OF HOUSEHOLD	***4.9***	***95.1***	***100.0***
Under 20 years	7.8	92.2	100.0
20 to 24 years	7.0	93.0	100.0
25 to 29 years	8.8	91.2	100.0
30 to 44 years	5.4	94.6	100.0
45 to 59 years	3.7	96.3	100.0
60 years and over			
EDUCATION LEVEL OF HEAD OF HOUSEHOLD	***7.5***	***92.5***	***100.0***
No education	7.0	93.0	100.0
Primary	5.0	95.0	100.0
Secondary-University	6.8	93.2	100.0

Sources : MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

Table 114: Types of risks and problems encountered by beneficiaries on payment day

Unit: %

	The place of payment is too far from where I live	It is too expensive to reach the place of payment	We do not know where the place of payment is	We are not safe to reach the place of payment	Total
Overall	93,5	0,0	0,0	6,5	100,0
REGION					
Androy	92.3	0.0	0.0	7.7	100.0
Anosy	100.0	0.0	0.0	0.0	100.0
HOUSEHOLD SIZE					
1 to 3 individuals	93.3	0.0	0.0	6.7	100.0
4 to 6 individuals	92.4	0.0	0.0	7.6	100.0
7 to 10 individuals	94.1	0.0	0.0	5.9	100.0
More than 10 individuals	100.0	0.0	0.0	0.0	100.0
AGE OF HEAD OF HOUSEHOLD					
Under 20 years	100.0	0.0	0.0	0.0	100.0
20 to 24 years	100.0	0.0	0.0	0.0	100.0
25 to 29 years	97.8	0.0	0.0	2.2	100.0
30 to 44 years	93.9	0.0	0.0	6.1	100.0
45 to 59 years	85.8	0.0	0.0	14.2	100.0
60 years and over	95.9	0.0	0.0	4.1	100.0
EDUCATION LEVEL OF HEAD OF HOUSEHOLD					
No education	97.4	0.0	0.0	2.6	100.0
Primary	93.6	0.0	0.0	6.4	100.0
Secondary-University	78.8	0.0	0.0	21.2	100.0

Sources: MPPSPF - FID - ONN/UPNNC - World Bank-UNICEF/FIAVOTA 2018 midline survey, authors' calculations.

11.

CHAPITRE 11. WOMEN'S PLACE AND DOMESTIC VIOLENCE

11.1. Summary

Between 2016 and 2018, some female beneficiaries changed business sector, shifting from agriculture to livestock farming. Although agriculture is still the dominant sector, the proportion of women working in it amounted to 71 percent in 2018, against 80 percent in 2016. Concurrently, the proportion of female beneficiaries farming livestock increased from 1 percent to 5 percent over the same period. Besides, in 2018, women's involvement in an economic activity was better appreciated within the household. The proportion of heads of household accepting their participation in that year amounts to 94 percent, against 77 percent in 2016.

The participation of female beneficiaries in economic activities is one of the factors that strengthened their position within the household, as evidenced by their much larger contribution to decision-making in 2018, as compared to 2016. In 2018, 54 percent of the women participated in household decisions relating to household activities, as compared to 38 percent in 2016. As regards decisions relating to investment expenditures, 45 percent of them participated in 2018, against 30 percent in 2016.

As women become empowered and their status improves, the behavior of male beneficiaries' wives towards them appears to be changing and materializes itself through a restriction of access to household resources for the household's daily needs. However, the PSM method that sets the two groups back in a similar socio-economic context derives only a slight difference of +0.11 percentage points.

The situation of female beneficiaries, as compared to that of women from control group households, remained, on average, more or less the same. Moreover, results indicate that the prestige that women gain from the mother-leader status puts them at lesser risk of domestic violence. Indeed, the number of cases of domestic violence reported in households without a mother-leader is much higher than the one reported in households where the wife is a leader mother. According to the Propensity Score Matching (PSM) method, the mother-leader status is estimated to decrease the number of cases of violence against female beneficiaries by 0.09 percentage points.

11.2. Introduction

312. This chapter aims to provide an analysis of the effects of the FIAVOTA program on women's place within the household and domestic violence. Overall, an analysis of the effects of cash transfers will be performed based on the involvement of women from beneficiary households in household economic activities and decision-making. According to the impact logical framework, the FIAVOTA program should empower women and improve their status, especially since some of them are recipients of cash transfers. This should reduce gender inequality in the beneficiary population and thereby mitigate domestic violence, especially against women. However, depending on the case, improvements in the status of women can also induce changes in the behavior towards men.

313. Moreover, some female program beneficiaries were elected mother-leaders. This status is expected to reduce their vulnerability to violence. Still, compared to other women, the fact that these women have additional social commitments as part of their participation in the optimization of program impacts on households, can impede on the daily tasks falling to them in their respective households. This situation is subsequently liable to influence couple relationships within "mother-leader" households.

314. This part is structured in two sections. The first section provides an analysis of program effects on women's place in general and, especially, on their empowerment. The second section discusses program impacts on domestic violence, especially in the case of mother-leaders and in relation with the level of education of the head of household.

11.3. Background and methodology

315. The 2018 situation relating to women's participation in economic activities and decision-making within the household was established using the same households as in 2016 (baseline year). The study population is made up of active working women ages 5 on coming from beneficiary households.

316. The implications of women's empowerment and status on domestic violence are analyzed against the situation of control households.

317. Domestic violence is a process of domination where one spouse establishes and exercises control over the other. It takes the form of verbal, psychological, physical, and sexual abuse, as well as threats, pressures, deprivations or coercion that can psychologically and physically harm the victim, or even cause social isolation.

318. In our case, six (6) forms of domestic violence were considered: (i) unpleasant comments on looks; (ii) disregard of opinion in front of children or other people; (iii) restriction of access to household resources for household day-to-day needs; (iv) insults; (v) physical abuse; and (vi) verbal threats.

319. Each of these topics was addressed in women and in men separately. Also, the results discussed in this chapter relate to cases observed at the household level, once both spouses agreed to participate in the interview.

11.4. Women's place within the household

11.4.1. Women's place in the economic activities of the household

320. The women considered here are active working women ages 5 on. They make up 52.1 percent of women in this age group. Comparison with data from 2016 shows that part of the women from beneficiary households changed business sector in 2018. Although the agriculture sector pools the largest share of the workforce, the proportion of women working in agriculture amounted to 71 percent in 2018 against 80 percent in 2016. [25]

321. In the Androy region, 75 percent of women worked in agriculture in 2018, against 82 percent in 2016. **The proportion of women involved in livestock farming-related activities strongly increased in 2018,** reaching 5 percent against less than 1 percent in 2016. An increase in the proportion of women working in trade was also noted, bringing it to 9 percent of them. In the Anosy region, the weight of agriculture decreased by 13 percentage points to 51 percent of the women in 2018. An increase in active female labor was recorded in livestock farming, trade, and services in general.

[25] The distribution of women per business sector in 2016 reported in annex.

Table 115: Distribution of women per activity sector in 2018
Unit: %

Activity sectors	Agriculture	Livestock farming, hunting	Fishing	Extractive industry	Processing industry	Trade	Transport	Other services	Public administration	Total
Overall	70.7	5.0	0.8	0.3	1.5	9.0	0.2	10.4	2.2	100.0
REGION										
Androy	74.6	5.2	0.6	0.3	0.6	8.2	0.2	8.5	2.0	100.0
Anosy	51.0	4.2	1.8	0.3	5.9	13.5	0.0	20.0	3.3	100.0
HOUSEHOLD SIZE										
1 to 3 individuals	68.9	5.1	1.2	0.1	0.7	13.9	0.1	8.6	1.4	100.0
4 to 6 individuals	71.6	3.8	0.8	0.2	1.7	9.9	0.2	9.7	2.1	100.0
7 to 10 individuals	70.9	5.7	0.6	0.4	1.5	7.5	0.0	11.1	2.3	100.0
More than 10 individuals	68.9	6.1	1.3	0.1	1.3	7.8	0.5	11.4	2.6	100.0
NUMBER OF CHILDREN UNDER 5										
1 child	66.2	4.7	1.3	0.2	1.2	10.2	0.1	13.5	2.7	100.0
2 children	72.2	4.9	0.4	0.3	1.4	9.4	0.3	9.3	1.9	100.0
3 children on	74.3	5.9	1.0	0.4	2.2	6.4	0.0	7.8	2.0	100.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD										
No education	74.4	5.4	0.8	0.3	1.4	8.5	0.3	8.3	0.5	100.0
Primary	71.9	5.1	1.0	0.3	1.7	9.0	0.0	9.6	1.5	100.0
Secondary-University	54.8	3.4	0.4	0.2	1.4	11.0	0.0	19.4	9.5	100.0

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

322. In relation to household profile, changes in activity were most marked in small households (maximum of 3 members) and households with a head with no education. Some of these households shifted from agriculture to livestock farming, trade, and services in general.

323. When considering employment status, nearly all (92 percent) women working to help their family work in the agricultural sector. Among self-employed women, three out of four work in agriculture and one in five in services. The majority (54 percent) of women from beneficiary households holding a formal job work in services and barely 23 percent in agriculture. Compared to year 2016[26], the status of women has changed to some extent - women, especially those with a formal job and self-employed, now prefer trade and services.

[26] Data from 2016 are reported in annex.

Table 116: Distribution of women per type of activity sector and employment status in 2018
Unit: %

	Employment status		
Activity sectors	Formal job	Self-employed	Helping family
Agriculture	22.9	73.0	92.5
Livestock farming, hunting	0.4	2.0	0.9
Fishing	0.0	0.3	0.1
Extractive industry	0.0	0.1	0.2
Processing industry	4.5	2.0	0.3
Trade	2.4	21.2	4.9
Other services	54.1	1.2	1.2
Public administration	15.6	0.2	0.0
TOTAL	*100.0*	*100.0*	*100.0*

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

11.4.2. Opinion on women's roles in production

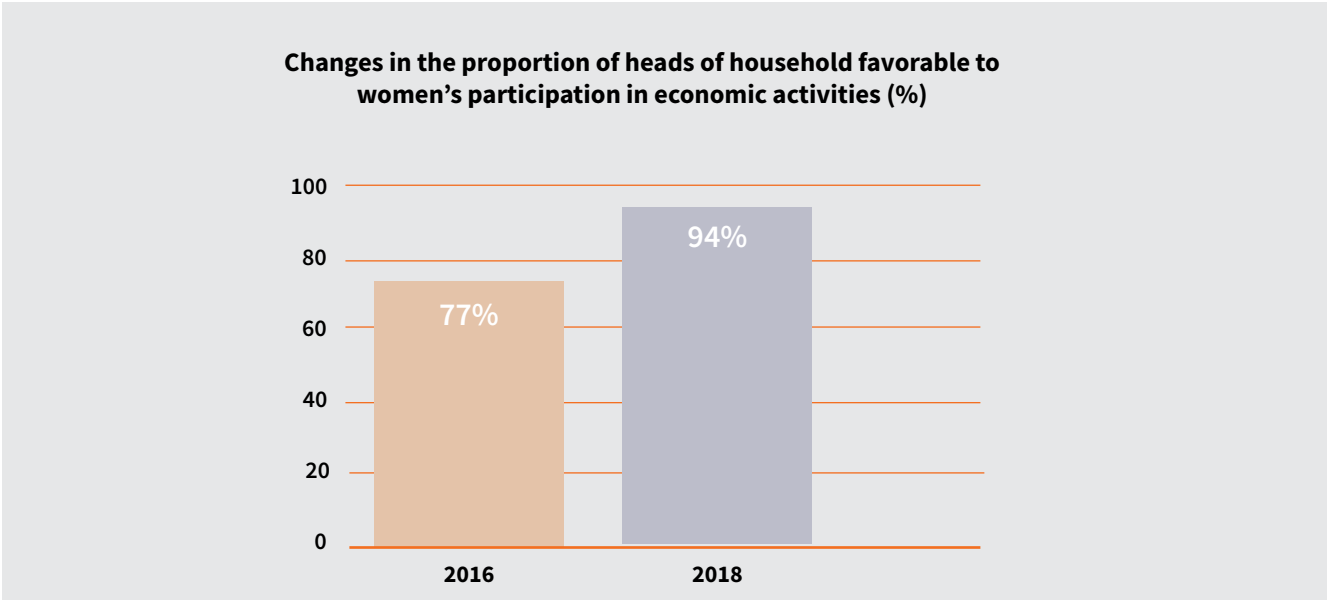
324. On the same occasion, heads of household, as well as their spouse, were requested to give their opinion on women's participation in economic activities as a contribution to household income.

325. **The midline survey reveals that women's participation in economic activities in 2018 is viewed in a much more favorable light than in 2016**, whether by the head of household or his spouse. Indeed, across the two regions, 94 percent of heads of household allow women to participate in economic activities in 2018. This participation is accepted by 97 percent of their spouses. The same proportions respectively amounted to 77 percent and 80 percent in 2016, i.e. an increase by 17 percentage points.

326. **When considering regions, the proportion of heads of household and their spouse having a favorable opinion on women's participation in economic activities in Androy is higher than in Anosy.** When considering household size, larger households remain the ones adhering to women's participation in economic activities. One possible explanation for this finding is the high economic dependency ratio of these households.

327. **No correlation can be established with the level of education of the head of the household**. In every type of household, favorable opinions on women's participation in economic activities significantly increased.

Figure 20 : Changes in the proportion of heads of household favorable to women's participation in economic activities



Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey-Baseline survey 2016, authors' calculations.

Table 117: Favorable opinion on women's participation in economic activities

Unit: %

	Year 2016		Year 2018	
Household characteristics	Opinion of the head of the household	Opinion of the spouse of the head of household	Opinion of the head of the household	Opinion of the spouse of the head of household
Overall	77.0	80.1	94.2	97.4
REGION				
Androy	76.3	81.7	95.3	97.6
Anosy	81.0	69.4	88.5	96.9
HOUSEHOLD SIZE				
1 to 3 individuals	75.1	64.4	93.3	93.7
4 to 6 individuals	77.8	80.1	93.2	97.8
7 to 10 individuals	77.7	84.8	94.5	97.8
More than 10 individuals	73.0	88.0	96.8	98.9
NUMBER OF CHILDREN UNDER 5 YEARS OLD				
1 child	77.5	77.0	92.9	96.8
2 children	76.2	81.8	95.2	97.7
3 children on	77.6	81.7	93.7	98.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD				
No education	76.3	80.4	94.5	97.1
Primary	78.6	78.3	93.3	97.6
Secondary-University	76.8	82.2	94.3	98.5

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey-Baseline survey 2016, authors' calculations.

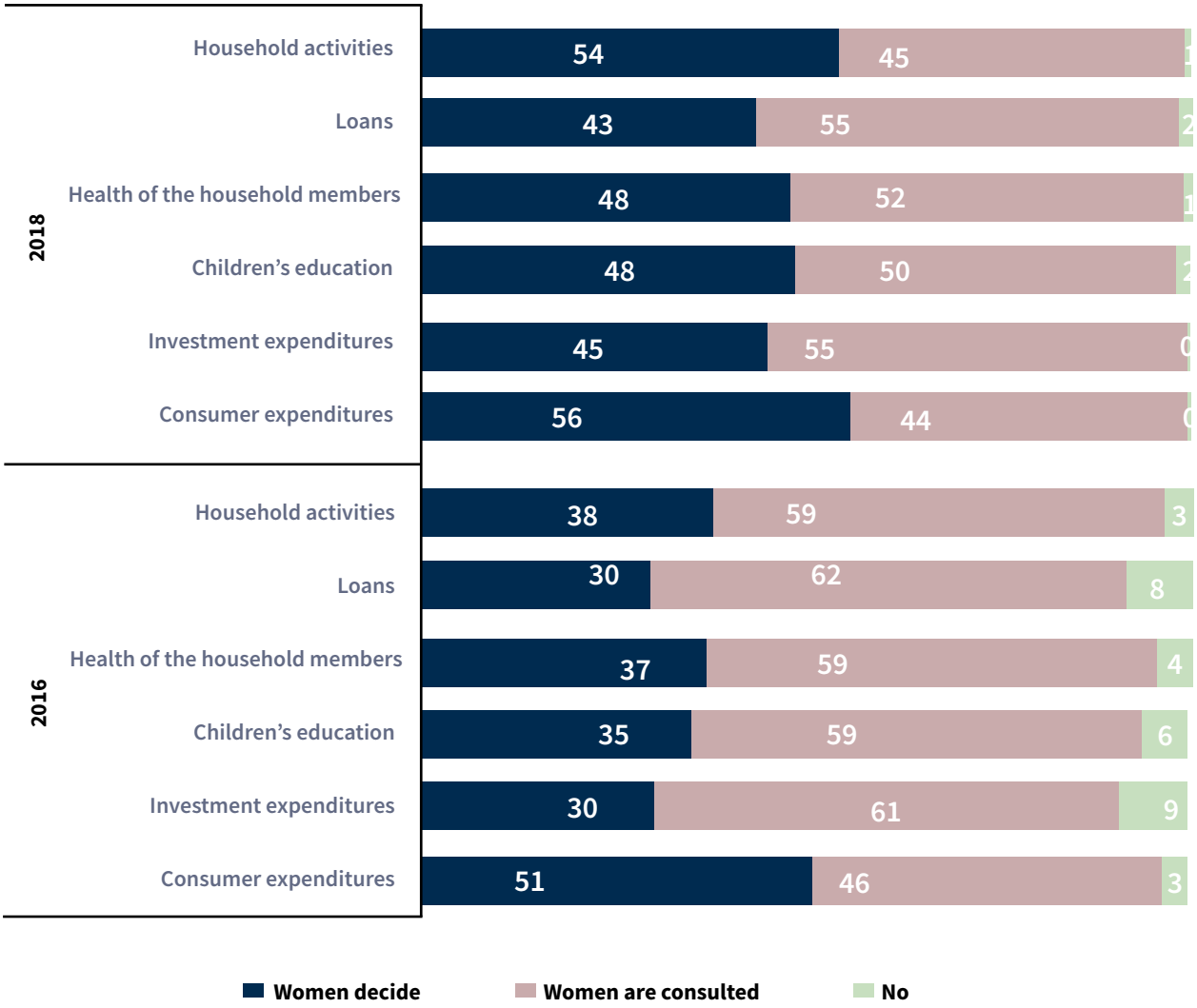
11.4.3. Opinion on women's participation in decision-making

328. Decision-making by and consultation of women vary across areas, tribes, or household types. **In 2018, the midline survey indicates that, compared to 2016**, women from beneficiary households participate in decision-making a lot more. Although such participation is still limited, results show that the decision-making capacity of women increased from 2016 to 2018.

329. In 2018, **54 percent of women participated in household decisions relating to household activities, against 38 percent in 2016.** For that matter, household activities are one of the areas where women's participation in decision-making has significantly increased (+16 percentage points). It is followed by investment expenditures, where it increased from 30 percent in 2016 to 45 percent in 2018. Women's participation in decision-making has also significantly increased in the area of children's education, as well as household loans which currently sees the participation of 43 percent of women against 30 percent in 2016.

Figure 21: Changes in women's participation in decision-making and consultation of women per type of expenditure

Unit: %



Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey-Baseline survey 2016, authors' calculations.

11.5. Domestic violence

11.5.1. Domestic violence and cash transfers

330. Beneficiary households feature among the most vulnerable households in the community. Although the cash transfers received by these households undoubtedly improved their living conditions, g**ross comparison27 of their situation with that of control group households indicates that the wives'behavior towards their husband has slightly changed over time.**

331. On average, 6 percent of the men from control groups reported noting a change in their wives' behavior, against 9 percent of the men from beneficiary households. **The changes in the wife's behavior materialized through a restriction of access to household resources for household day-to-day needs, with a rate of occurrence 5 percentage points higher in beneficiary households**, as compared to control households. Another change mentioned was making demeaning comments against the man in front of the children or other people: 11 percent of the men from beneficiary households complained about it, against 7 percent of men from control households.

332. **Comparison to the situation of control group households indicates that the husbands' behavior towards the wife has not changed much**. In beneficiary households, an average of 9 percent of the wives reported noting a change in the behavior of their spouse. In control group households, the number of wives reporting the same is very close (8 percent). Overall, it is noted that the violence perpetrated against women in terms of physical abuse and verbal threats is much more intense than the violence perpetrated against men.

[27] A clear comparison between beneficiaries and the control group is discussed at the end of the chapter. It sets the two groups back in a similar socio-economic context, using the PSM approach.

Table 118: Gender-based violence as experienced within the household
Unit: %

	Beneficiary group		Control group	
Type of violence	Male	Female	Male	Female
Unpleasant comments on looks	11.9	10.0	10.3	10.0
Demeaning comments in front of the children or other people	11.2	11.7	7.0	9.0
Restriction of access to household resources	10.2	10.6	4.8	6.5
Insult	7.0	8.9	4.6	6.6
Physical abuse	3.6	4.6	1.9	3.9
Verbal threat	7.7	11.0	5.1	10.0
Overall	8.6	9.5	5.6	7.7

Interpretation : 11.9 percent of the men from beneficiary households experienced unpleasant comments on their looks, against 10.3 percent of the men from control group households.

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey

11.5.2. Domestic violence among beneficiaries per region

333. Although Androy and Anosy show similar proportions of households experiencing domestic violence, the two regions each have their distinctive characteristics. **In Androy, domestic violence took the form of demeaning comments addressed to the woman in front of the children or other people.** This form of violence affected 12 percent of the women in this region, against 10 percent of the women in Anosy. As for the men in Androy, they were much more frequently the target of unpleasant comments on their looks than those in Anosy (13 percent against 8 percent in Anosy).

Table 119: Gender-based violence as experienced by beneficiaries per region
Unit: %

	Androy		Anosy	
Type of violence	Male	Female	Male	Female
Unpleasant comments on looks	12.7	10.2	8.0	9.5
Demeaning comments in front of the children or other people	11.5	12.1	9.5	10.0
Restriction of access to household resources	10.1	9.6	11.1	15.9
Insult	7.4	9.1	4.9	8.1
Physical abuse	3.6	4.1	4.1	7.1
Verbal threat	7.5	11.2	8.3	10.1
Overall	8.8	9.4	7.7	10.1

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey

334. Women in Anosy suffered much more restrictions of access to household resources, as well as physical abuse, than women in Androy. The first form of domestic violence affected 16 percent of them, against 10 percent in Androy. As for the second form, it affected 7 percent of the women in the Anosy region, against 4 percent of those in Androy.

11.5.3. Domestic violence and working as mother-leader

335. Some female program beneficiaries were elected mother-leaders. To assess the effects of this civic commitment on domestic violence, the situation of households including a mother-leader was compared to that of households without a mother-leader. Results indicate that the prestige that women gain from the status of mother-leader reduces the risks of domestic violence against them.

336. Indeed, **a much higher number of cases of domestic violence was reported in households without a mother-leader than in households where the wife is a mother-leader.** Women were especially affected. The forms of domestic violence most frequently experienced by non-mother-leader women are disregard for their opinion in front of the children or other people (11 percent) and restriction of access to household resources (11 percent).

337. **In households where the wife is a mother-leader, domestic violence proves less intense.** On average, 7 percent of women experienced domestic violence. The most striking differences between mother-leaders and non-mother-leaders were noted in relation to the restriction of access to household resources and physical abuse. These forms of violence were less frequently reported by mother-leaders.

Table 120: Violence as experienced by beneficiaries according to whether the household includes a mother-leader (ML) or not

Unit: %

	Households with ML		Households without ML	
Type of violence	Male	Female	Male	Female
Unpleasant remarks on looks	11.1	9.2	12.5	9.7
Demeaning comments in front of the children or other people	12.5	9.2	11.4	11.5
Restriction of access to household resources	8.8	7.4	10.8	11.1
Insult	9.3	6.7	7.1	8.8
Physical abuse	2.5	2.8	3.9	5.2
Verbal threat	9.1	9.2	8.7	11.5
Overall	8.9	7.4	9.1	9.6

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey

338. On average, the situations of men from the two types of households remain similar. Still, distinctive characteristics exist. More than 12 percent of the men living in a household headed by a mother-leader reported experiencing demeaning remarks in front of the children. In the other type of household, violence against men more often took the form of unpleasant comments on their looks.

11.5.4. Domestic violence and the education level of the head of household

339. **In beneficiary households, a higher level of education of the head of household decreases the risks of domestic violence, especially against men.** Reported cases of domestic violence against men when the head of household has no education involved unpleasant comments on looks and occurred significantly less when the head of household has at least primary education. Among male heads of household, 14 percent of those with no education reported such cases, against 10 percent of those who had some education. These men also reported receiving demeaning comments, namely 12 percent of those with no education against 10 percent of those with at least primary education.

Table 121: Gender-based violence as experienced by beneficiaries, by level of education of the head of household

Unit: %

	HHH with no education		HHH with at least primary education	
Type of violence	Male	Female	Male	Female
Unpleasant comments on looks	14.0	11.1	10.4	9.2
Demeaning comments in front of the children or other people	12.5	12.7	10.1	11.0
Restriction of access to household resources	9.4	10.7	10.9	10.6
Insult	7.5	8.6	6.6	9.2
Physical abuse	5.1	4.4	2.5	4.8
Verbal threat	7.9	10.1	7.5	11.7
Overall	9.4	9.6	8.0	9.4

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

340. **With regard to women, the situation does not vary on average, regardless of the level of education of the head of household**. Nevertheless, the proportion of women who have experienced demeaning comments in front of the children or other people is much higher when the head of the household has no education.

11.5.5. Net impact of the FIAVOTA program on domestic violence

341. The Propensity Score Matching (PSM) method is used in this section to estimate the net impact of the FIAVOTA program on domestic violence. This approach assumes that exogenous factors have been statistically controlled for. Although the comparative approach reveals a significant gap between the beneficiary group and the control group in terms of domestic violence, the PSM approach that sets the two groups back in a similar socioeconomic context shows a much smaller gap, amounting to approximately 0.1 percentage point.

342. Significant changes in domestic behavior included the restriction of the access of both women and men to household resources for daily household needs. The proportion of beneficiary women who find their access to household resources restricted is 0.08 percentage points higher than that of the control group. However, the status of mother-leader reduces the vulnerability of a woman, as witnessed by a difference of -0.09 percentage points with beneficiary women. As for men, the proportion of beneficiaries who find their access to household resources restricted is 0.11 percentage points higher than that of the control group. The net impact of the program on other forms of violence was not found significant.

Table 122: Impact of the FIAVOTA program on domestic violence (PSM gap: beneficiary - control)
Unit: %

Type of violence	PSM gap (%)	Significance
Restriction of the woman's access to household resources	0.08	**
Restriction of the mother-leader's access to household resources (gap between leader mother and female beneficiary)	-0.09	***
Restriction of the man's access to household resources	0.11	**

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

11.6. Annexes

Table 123: Distribution of women per activity sector in 2016
Unit: %

Activity sectors	Agriculture	Livestock farming, hunting	Fishing	Extractive industry	Processing industry	Trade	Transport	Other services	Public administration	Total
REGION										
Androy	82.3	0.4	0.2	0.2	0.7	6.6	0.0	8.7	0.9	100.0
Anosy	63.8	0.7	0.3	0.0	6.2	11.9	0.0	17.1	0.2	100.0
QUARTILE OF VULNERABILITY										
Low vulnerability	75.6	0.5	0.1	0.0	0.6	10.7	0.0	11.4	1.1	100.0
2	82.3	0.3	0.0	0.7	1.3	6.0	0.0	7.7	1.7	100.0
3	82.3	0.3	0.3	0.0	1.1	6.7	0.1	9.1	0.2	100.0
High vulnerability	78.7	0.6	0.5	0.0	2.7	6.0	0.0	11.1	0.4	100.0
DEGREE OF MALNUTRITION										
Urgent	83.2	0.6	0.7	0.0	1.3	6.8	0.1	6.7	0.6	100.0
Warning	80.1	0.5	0.2	0.0	0.8	6.0	0.0	11.9	0.5	100.0
Requires monitoring	77.9	0.1	0.0	0.5	2.1	8.9	0.0	9.3	1.3	100.0
SOCIAL PROTECTION										
Cash transfer	81.9	0.4	0.1	1.3	0.6	8.1	0.0	7.2	0.4	100.0
Food	82.0	0.6	0.4	0.0	1.5	6.8	0.0	7.7	1.1	100.0
Other support	77.4	0.5	0.0	0.0	0.0	4.7	0.0	17.1	0.4	100.0
No support	76.1	0.1	0.0	0.0	1.8	8.1	0.0	13.2	0.7	100.0
HOUSEHOLD SIZE										
1 to 3 individuals	80.2	0.2	0.2	0.0	1.4	8.4	0.1	9.0	0.5	100.0
4 to 6 individuals	80.4	0.4	0.3	0.5	1.8	7.2	0.0	7.8	1.5	100.0
7 to 10 individuals	80.5	0.5	0.1	0.0	1.3	6.8	0.0	10.3	0.6	100.0
More than 10 individuals	76.6	0.2	0.5	0.0	0.8	8.2	0.0	13.5	0.2	100.0

Activity sectors	Agriculture	Livestock farming, hunting	Fishing	Extractive industry	Processing industry	Trade	Transport	Other services	Public administration	Total
NUMBER OF CHILDREN UNDER 5 YEARS OLD										
1 child	76.2	0.4	0.2	0.5	2.0	8.6	0.0	10.5	1.6	100.0
2 children	80.5	0.2	0.3	0.0	1.3	7.5	0.0	9.7	0.5	100.0
3 children on	84.0	0.6	0.1	0.0	0.9	5.1	0.0	8.8	0.5	100.0
GENDER OF THE HEAD OF HOUSEHOLD										
Male	81.6	0.5	0.2	0.3	1.4	6.6	0.0	8.8	0.6	100.0
Female	76.2	0.2	0.2	0.0	1.5	8.8	0.0	11.7	1.4	100.0
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD										
No education	85.4	0.4	0.3	0.0	1.6	4.9	0.0	7.2	0.2	100.0
Primary	76.7	0.3	0.1	0.0	1.1	11.9	0.0	9.7	0.2	100.0
Secondary-University	65.8	0.3	0.1	1.1	1.2	8.6	0.0	19.0	4.0	100.0
OVERALL	***79.9***	***0.4***	***0.2***	***0.2***	***1.4***	***7.3***	***0.0***	***9.8***	***0.8***	***100.0***

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey

Table 124: Distribution of women per type of activity sector and employment status in 2016
Unit: %

Activity sectors	Employment status			
	Formal job	Self-employed	Helping family	Total
Agriculture	36.7	75.4	91.4	79.8
Livestock farming, hunting	0.6	0.4	0.4	0.5
Fishing	0.3	0.1	0.3	0.4
Extractive industry	0.0	0.0	0.3	0.0
Processing industry	4.3	2.0	0.5	1.6
Trade	7.7	14.5	3.4	6.9
Other services	43.7	7.7	3.7	10.2
Public administration	6.8	0.0	0.0	0.7
TOTAL	***100.0***	***100.0***	***100.0***	***100.0***

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

Table 125: Percentage of households accepting women's participation in decision-making per type of expenditure

Unit: %

Type of expenditure	Consumer expenditures	Investment expenditures	Education of the children	Health of household members	Loans	Household activities
Overall	55.5	44.8	48.3	47.8	43.3	54.2
REGION						
Androy	54.0	43.9	48.0	47.3	42.5	53.4
Anosy	62.4	49.3	49.6	50.1	46.7	58.0
SOCIAL PROTECTION						
Cash transfer	45.2	36.2	41.2	39.9	36.9	43.2
Food	57.7	48.2	52.4	51.2	46.6	58.4
Other support	38.6	24.0	30.1	31.3	26.1	35.8
No support	57.7	45.1	47.0	47.6	42.6	54.4
HOUSEHOLD SIZE						
1 to 3 individuals	72.1	65.3	67.0	66.6	64.9	70.3
4 to 6 individuals	53.2	44.2	47.2	47.8	42.4	54.2
7 to 10 individuals	53.3	39.5	44.4	42.8	37.4	50.0
More than 10 people	48.9	36.5	39.2	37.8	36.4	45.9
NUMBER OF CHILDREN UNDER 5						
1 child	62.0	52.0	53.3	54.2	49.0	59.2
2 children	51.2	40.6	44.8	43.2	39.6	51.1
3 children on	53.9	41.8	47.2	47.1	41.5	52.5
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD						
No education	54.1	42.5	46.8	45.8	41.2	51.8
Primary	58.5	48.4	50.7	51.1	46.6	57.7
Secondary-University	55.1	46.7	49.1	49.0	44.6	56.5

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

Table 126: Percentage of households accepting consultation of women in decision-making per type of expenditure in 2018

Unit: %

Type of expenditure	Consumer expenditures	Investment expenditures	Education of the children	Health of household members	Loans	Household activities
Overall						
REGION	***44.2***	***54.8***	***49.8***	***51.6***	***55.1***	***45.3***
Androy	45.6	55.7	50.0	52.0	55.6	46.1
Anosy	37.6	50.7	48.5	49.9	52.6	41.8
SOCIAL PROTECTION						
Cash transfer	54.1	63.2	57.3	59.5	61.9	56.0
Food	42.0	51.4	46.7	47.8	51.6	41.1
Other support	58.0	72.6	66.5	65.3	69.5	60.8
No support	42.3	54.8	49.6	52.4	55.9	45.5
HOUSEHOLD SIZE						
1 to 3 individuals	27.6	34.5	30.8	33.1	33.8	29.2
4 to 6 individuals	46.6	55.5	50.2	51.3	55.3	45.3
7 to 10 individuals	46.2	59.9	53.8	56.5	61.2	49.5
More than 10 people	51.1	63.5	60.8	62.2	63.4	54.1
NUMBER OF CHILDREN UNDER 5						
1 child	37.5	47.5	43.8	45.4	48.8	40.1
2 children	48.5	59.0	53.4	55.9	58.6	48.3
3 children on	46.1	58.1	51.9	52.7	58.1	47.5
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD						
No education	45.6	57.2	50.7	53.4	57.1	47.8
Primary	41.0	51.0	48.1	48.4	52.2	41.6
Secondary-University	44.8	53.1	49.4	50.8	53.0	42.9

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.


FONDS D'INTERVENTION POUR LE DEVELOPPEMENT
« MIASA HO FIAHIANA MPIARA-BELONA »

12.

CHAPITRE 12. FEMALE BENEFICIARIES' TIME ALLOCATIONS

12.1. Summary

The time allocations of female beneficiaries of the FIAVOTA program indicate that women's participation in economic activities is still rather low. The time allocated to market economic activities is, relatively, the same as the time allocated to non-market economic activities. On the other hand, such participation makes up only half of the time dedicated to domestic activities. Women's contribution to economic activities is highly dependent on their environment and the employment opportUnities available in the society where they live. Urban women spend more time on economic activities than rural ones. Similarly, women living in households headed by a tradesperson dedicate more time to economic activities.

Female ACNs spend four times as much time as mother-leaders on FIAVOTA-related activities (outreach, coordination, coaching, and home visits, etc.). The number of hours that mother-leaders spend on FIAVOTA activities is reduced to minimum since the collection period coincides with the transition period from UCT to HDCT. Regardless of the woman's responsibility on the FIAVOTA program (ACN, mother-leader, simple beneficiary), the time allocated to the other types of activities stays virtually the same. This entails that female ACNs or mother-leaders take some of their "personal care and maintenance" time to conduct FIAVOTA-related activities.

12.2. Introduction

343. This chapter is mainly intended to capture the amount of activities conducted by female beneficiaries of the FIAVOTA program, according to the respective responsibilities falling to them, in general, and according to the workloads associated with the specific activities assigned to ACNs and mother-leaders, in particular. ACNs and mother-leaders perform special tasks on a volunteer basis, either to coordinate or to sensitize and galvanize their respective groups. Their situation differs from that of other simple beneficiaries in that they have a larger workload. As such, the level of responsibility of women in the social protection system and cash transfers could entail more time spent on FIAVOTA program activities, increased participation in market and non-market economic activities within the household, and in other paid or unpaid occupations within the commUnity. Women will reallocate the available time to include these new occupations, in addition to their usual domestic tasks. Since women cannot get away from certain household chores, the amount of time available and economic or social benefits expected from the activities are conditional to the effectiveness of the activities conducted by female ACNs or mother-leaders.

12.3. Background and methodology

344. The analysis is based on the results of the time allocations survey conducted among FIAVOTA female beneficiaries during the 2018 monitoring-evaluation survey. The information not only inventories economic activities (market or non-market) or work in its broader sense (fetching water and wood, keeping one's own house), but also any domestic, commercial, social, cultural activity, sports, religious, and community activity, and all personal care (including meals), travel and waiting times, education or training, recreation (including rest), illnesses, and sleep.

345. The recall period is a 24-hour day. Normally, the day considered is the one before the interview.

346. Occupations are classified according to 12 categories (Standard Classification of the UN Statistical Division) whose code appears between brackets before the title of each activity: (1) Market economic activity; (2) Non-market economic activity; (3) Domestic activity; (4) Care given to child, ill, disabled, or elderly members of the household; (5) Social activities of the associative type; (6) Social activities of the ceremonial type and other socialization activities; (7) Study and literacy; (8) Cultural and sports activities; (9) Mass media use; (10) Transport, travel; (11) Personal care and maintenance; (12) FIAVOTA activities; (13) Other. Tasks related to the FIAVOTA program will be differentiated from other activities: meetings, trainings, enrollment, payments, home visits, sensitizations. The detailed classification of the activities or occupations is provided in annexes.

12.4. Time allocated by women to economic activities

347. **The amount of time that women in FIAVOTA areas allocated to economic market activities remains fairly small.** Out of a day of 24 hours, the women allocated nearly 1.6 hours to market economic activities, i.e. 6.5 percent of the day. This amount of time is relatively the same as the one allocated to non-market economic activities. On the other hand, it makes up only half of the time allocated to domestic activities, which is 3.7 hours a day.

348. However, these results encompass all female beneficiaries of FIAVOTA and the "average" profile that emerges covers a wide range of situations, including age, occupational status, region, and other parameters. Previous observations now need to be refined by detailing the time allocations of the more homogeneous categories.

349. Women in the region of Anosy spend more time on activities, i.e. 2.4 hours against only 1.5 hour in the region of Androy. On the other hand, women from that region spend less time on personal care and maintenance, i.e. 9.9 hours against over 13.1 hours in the region of Androy. The amount of time allocated to economic activities is relatively high in urban areas (over 2.2 hours per day) than in rural areas (less than 1.4 hours per day).

350. Women spend more time on market economic activities in some household categories, as well as in households without children under 5, and households headed by a tradesperson. The results show that women's contribution to economic activities is highly dependent on their environment and job opportunities available in the society where they live.

Table 127: Daily amount of time that women spend on their occupations

Unit: Number of hours per day

Occupation	Market economic activity	Non-market economic activity	Domestic activity	Taking care of children, the elderly, and disabled in the household	Community activity	Socializing and ceremonies	Social and cultural activity	Travel	Personal care and maintenance	FIAVOTA-FID activities	Other occupations
Overall	1.6	1.4	3.7	1.2	0.1	0.9	0.3	1.2	12.6	0.2	0.8
REGION											
Androy	1.5	1.5	3.7	1.2	0.1	0.8	0.3	1.1	13.1	0.1	0.5
Anosy	2.4	1.1	3.7	1.2	0.1	1.1	0.5	1.3	9.9	0.3	2.4
DEGREE OF MALNUTRITION											
Urgent	1.3	1.4	3.5	1.3	0.1	1.1	0.4	1.2	13.1	0.2	0.5
Warning	1.5	1.5	3.5	1.2	0.1	0.7	0.3	1.3	13.6	0.1	0.2
Requires monitoring	1.9	1.4	3.7	1.2	0.1	1.0	0.3	1.0	11.5	0.2	1.6
SOCIAL PROTECTION											
Cash transfers other than FIAVOTA	1.4	1.5	3.8	1.2	0.1	0.9	0.4	0.9	12.9	0.2	0.7
Food	1.5	1.4	3.4	1.3	0.1	0.9	0.3	1.2	13.0	0.2	0.7
Other support	1.4	1.4	3.4	0.7	0.1	1.1	0.6	2.0	12.5	0.6	0.4
No support	1.8	1.5	3.8	1.2	0.1	0.9	0.3	1.1	12.2	0.1	1.1
HOUSEHOLD TYPE											
Single father	2.2	1.5	3.5	1.1	0.0	0.7	0.3	0.9	13.1	0.2	0.5
Single mother	2.0	1.4	3.3	1.2	0.2	1.0	0.3	1.3	12.4	0.2	0.9
Extended or polygamous	1.1	1.1	3.8	1.1	0.2	0.9	0.2	1.1	13.1	0.2	1.1
Nuclear	1.4	1.5	3.7	1.3	0.1	0.9	0.3	1.1	12.7	0.2	0.8
HOUSEHOLD SIZE											
1 to 3 individuals	1.7	1.8	3.7	1.0	0.1	0.9	0.3	1.1	12.4	0.2	0.8
4 to 6 individuals	1.5	1.5	3.6	1.2	0.1	0.9	0.4	1.2	12.4	0.1	1.0
7 to 10 individuals	1.7	1.3	3.7	1.2	0.1	0.9	0.3	1.1	12.8	0.1	0.7
More than 10 individuals	1.9	1.3	3.5	1.4	0.1	0.9	0.3	1.2	12.7	0.2	0.5
HAS CHILDREN UNDER 5											
No children	2.1	1.6	3.4	0.5	0.1	1.3	0.2	1.1	12.4	0.1	1.0
With children	1.6	1.4	3.7	1.3	0.1	0.9	0.3	1.2	12.6	0.2	0.8

Occupation	Market economic activity	Non-market economic activity	Domestic activity	Taking care of children, the elderly, and disabled in the household	Community activity	Socializing and ceremonies	Social and cultural activity	Travel	Personal care and maintenance	FIAVOTA-FID activities	Other occupations
HAS CHILDREN AGES 6 TO 12											
No children	1.4	1.7	3.7	1.2	0.1	0.9	0.3	1.1	12.5	0.2	0.9
With children	1.7	1.4	3.6	1.2	0.1	0.9	0.3	1.2	12.6	0.2	0.8
AGE OF THE HEAD OF HOUSEHOLD											
Under 29	1.1	1.6	3.6	1.4	0.2	0.9	0.3	1.1	12.9	0.1	0.9
30 to 44	1.8	1.4	3.7	1.4	0.1	0.8	0.3	1.2	12.5	0.1	0.7
45 to 59	1.9	1.4	3.7	1.2	0.1	1.0	0.3	1.1	12.3	0.2	0.8
60 on	1.5	1.5	3.6	0.7	0.1	0.9	0.5	1.3	12.7	0.2	1.0
GENDER OF THE HEAD OF HOUSEHOLD											
Male	1.5	1.5	3.7	1.2	0.1	0.9	0.3	1.1	12.8	0.2	0.6
Female	2.0	1.4	3.5	1.2	0.2	0.9	0.3	1.2	12.1	0.2	1.2
EDUCATION LEVEL OF THE HEAD OF HOUSEHOLD											
No education	1.4	1.5	3.6	1.2	0.1	0.8	0.3	1.2	12.9	0.1	0.7
Primary	1.8	1.5	3.6	1.0	0.1	1.0	0.3	1.1	12.4	0.1	0.9
Secondary-University	2.0	1.3	3.8	1.4	0.2	0.8	0.3	1.1	11.9	0.3	1.1
ACTIVITY OF HEAD OF HOUSEHOLD											
Non-working / Unemployed	0.8	1.1	3.1	1.1	0.2	0.9	0.5	1.5	12.8	0.2	1.6
Agriculture	1.3	1.6	3.6	1.2	0.1	0.9	0.3	1.2	13.0	0.1	0.6
Industry	2.5	1.2	4.4	1.3	0.0	0.9	0.5	1.0	11.7	0.5	0.0
Trade	4.1	1.0	3.4	1.3	0.1	0.9	0.3	1.0	11.1	0.1	0.8
Administration	2.5	1.0	4.0	1.4	0.0	0.8	0.5	0.9	10.7	0.2	1.9
Other services	1.9	1.0	3.8	1.2	0.3	0.8	0.4	1.0	13.2	0.2	0.1
OWNERSHIP OF FAMILY PRODUCTION UNITS											
No production unit	1.5	1.4	3.7	1.3	0.1	0.9	0.3	1.2	12.4	0.2	1.0
With production units	1.9	1.5	3.6	1.0	0.2	0.8	0.4	1.2	13.0	0.2	0.3
PLACE OF RESIDENCE											
Region	2.2	1.5	3.7	1.6	0.0	1.8	0.4	0.6	11.3	0.1	0.8
District	2.4	1.2	3.7	1.2	0.1	0.5	0.2	1.1	12.3	0.2	1.0
Other communes	1.3	1.5	3.5	1.2	0.1	1.0	0.3	1.2	12.9	0.2	0.8

Occupation	Market economic activity	Non-market economic activity	Domestic activity	Taking care of children, the elderly, and disabled in the household	Community activity	Socializing and ceremonies	Social and cultural activity	Travel	Personal care and maintenance	FIAVOTA-FID activities	Other occupations
SOURCE OF DRINKING WATER											
JIRAMA	2.7	1.1	3.5	1.3	0.0	0.8	0.3	0.8	12.5	0.1	0.9
Tank-Dam	1.7	1.4	3.9	1.3	0.0	0.9	0.3	1.2	12.3	0.2	0.7
None	1.3	1.5	3.5	1.2	0.1	0.9	0.3	1.2	12.8	0.1	0.9
DISTANCE FROM SITE											
Less than 15 minutes	1.7	1.4	3.7	1.3	0.1	0.9	0.3	1.0	12.6	0.2	0.8
15 min to 1 hour	1.3	1.4	3.5	1.3	0.1	0.8	0.3	1.5	12.6	0.2	0.9
More than one hour	1.4	2.0	3.0	0.8	0.5	1.1	0.3	1.2	12.9	0.1	0.7
NUMBER OF HEALTH FACILITIES											
No health facility	1.6	1.5	3.5	1.2	0.1	1.0	0.3	1.2	12.6	0.1	0.8
One health facility	1.4	1.4	3.5	1.2	0.1	0.7	0.3	1.1	13.7	0.2	0.5
2 health facilities or more	2.4	1.0	4.9	1.3	0.0	0.2	0.3	1.3	10.0	0.2	2.4
NUMBER OF PRIMARY SCHOOLS											
No school	2.4	0.9	4.3	1.4	0.1	0.7	0.1	0.4	11.4	0.0	2.3
One school	1.4	1.5	3.6	1.2	0.1	0.9	0.3	1.3	12.9	0.2	0.5
2 schools on	2.9	1.1	3.7	1.1	0.1	0.8	0.5	0.9	10.8	0.2	2.0

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

12.5. Workload of ACNs and mother-leaders

351. Activities relating to the FIAVOTA program make up a significant portion of the workload of female ACNs in FIAVOTA areas. Female ACNs spend four times as much time as mother-leaders on FIAVOTA-related activities such as outreach, coordination, coaching, and home visits. The time that ACNs dedicate to these activities amounts to 0.8 hours per day, i.e. nearly 6 hours per week. In addition to these FIAVOTA-related activities, ACNs, like other women, have other daily tasks or activities to perform, which take up nearly the same number of hours. As such, in order to conduct FIAVOTA activities, they reduce the time allocated to their personal care and maintenance (meals, sleep, rest, grooming, etc.), spending 0.5 hour per day less than mother-leaders on it and 1 hour per day less than simple beneficiaries.

352. On the other hand, mother-leaders spend twice as much time as simple beneficiaries on their participation in FIAVOTA-related activities. However, the amount of time is rather low at only 0.2 hours per day, i.e. a quarter of the time allocated by ACNs. This is due to the fact that the data collection period coincides with a transitory period between the first UCT phase to the second HDCT phase. Over this period, the roles and responsibilities of the mothers are kept to the strict minimum. As with ACNs, mother-leaders spend nearly as much time as simple beneficiaries on other types of activities.

Table 128: Time allocated to women's occupations per responsibility in the FIAVOTA program
Unit : Number of hours per day

Occupation	Market economic activity	Non-market economic activity	Domestic activity	Taking care of children, the elderly, and disabled in the household	Community activity	Socializing and ceremonies	Social and cultural activity	Travel	Personal care and maintenance	FIAVOTA-FID activities	Other occupations
Overall	1.6	1.4	3.7	1.2	0.1	0.9	0.3	1.2	12.6	0.2	0.8
RESPONSIBILITY OF THE WOMAN											
AC or CPS	1.6	1.4	3.7	1.1	0.1	0.8	0.3	1.5	11.7	0.8	1.1
Mother-leader	1.8	1.4	3.7	1.2	0.1	0.8	0.4	1.3	12.2	0.2	0.9
Simple beneficiary	1.6	1.5	3.6	1.2	0.1	0.9	0.3	1.1	12.7	0.1	0.8
New beneficiary	1.3	1.3	3.9	1.4	0.1	0.5	0.3	1.2	13.8	0.0	0.4

Sources : MPPSPF - FID - ONN / UPNNC - World Bank-UNICEF / FIAVOTA 2018 midline survey, authors' calculations.

12.6. Annexes

Table 129: Detailed classification of the activities

Group	Item	Activities
01	Market economic activity	Main activity
		Secondary activity 1
		Looking for a job
02	Non-market economic activity	Fetching wood
		Fetching water
		Other transformations for self-consumption
		Livestock (taking out, tending, feeding, bringing back, milking)
		Gardening
		Collecting grass, hay, natural fertilizers
		Repairing house, or device (paint, roof, mason)
		Maintaining cart
		Transforming agricultural produce for feeding
		Community works
		Poultry
		Other manufacturing activity or transformation for ceremonies
		Preparing food for ceremonies
		Self-building
03	Domestic activity	Preparing meals for the family
		Housekeeping (sweeping, cleaning, tidying up)
		Doing laundry
		Ironing
		Drying of food products
		Washing up
		Going to the market, shopping, running errands
		Administrative formalities
		Car maintenance, repair
		Other maintenance
		Other errands
04	Care provided to children, the elderly, and disabled in the household	Taking care of children
		Dropping children at school
		Monitoring the children's homework
		Taking care of adults, disabled, and old people
05	Community activity	Participation in associative meetings (parties, trade unions, NGOs, neighborhood associations)
		Participation in religious meetings (churches, temple, mosques, etc.)

Group	Item	Activities
06	Socializing and ceremonies	Ceremonies, bereavements, baptisms, weddings, etc.
		Discussing, chatting, waffling on
		Parties
		Phoning
07	Studies	Studying at school
		Studying at home
		Literacy
08	Social and cultural activity	Dancing, singing
		Visiting relatives, friends, neighbors
		Taking a walk, a stroll
		Go to cinema, watch a show
		Drinking
		Reading, writing at home
		Playing
		Playing sports
		Entertaining relatives, friends, neighbors
09	Using mass media	Reading the newspapers
		Listening to the radio
		Watching TV
10	Traveling	Commuting
		Traveling for associative activities
		Traveling for social and cultural activities
		Traveling to school or from school
		Other traveling
11	Personal care and maintenance	Sleeping
		Taking meals (breakfast, lunch, dinner)
		Meals taken outside
		Resting, doing nothing
		Grooming, dressing
		Getting treatment

Group	Item	Activities
12	FIAVOTA-FID activities	Attendance of meetings with FIAVOTA
		Participation in trainings organized by FIAVOTA
		Accompanying its group to the enrollment of FIAVOTA beneficiaries
		Assistance to the payment of FIAVOTA beneficiaries
		Monitoring of adjustment fund activities in their group
		Conducting of well-being spaces
		Conducting of group meeting for KFP promotion
		Conducting of home visits
		Management of their group
		Development of FIAVOTA activity reports (well-being spaces, home visits, etc.)
		Distribution of Plumpysup
		Monitoring of child growth promotion
		Monitoring of the nutritional status of children (MUAC)
		Community assessment
		Nutrition education and CD
		Case management of children with moderate malnutrition in the South
		Monitoring of pregnant women
		Referral of sick and severely malnourished children to BHC
		Counseling including child growth promotion
		Other FIAVOTA activities
13	Other activities	Other activities

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APPENDICES: CONCEPT AND METHODOLOGY OF EVALUATION

Appendix 1: Methods for counterfactual situation determination and impact assessment

353. **Theoretical measure of impact.** Generally, the impact of a program is measured by the change in the variable of interest over a period of time. In an ex-post quantitative evaluation, the variable of interest is observed using an indicator at the level of the target unit. In the case of the FIAVOTA program, the target unit may be an individual (child, wife), a household or a community (fokontany, nutrition site). For a given beneficiary unit referred to as "i", the impact of the program on the variable of interest Y during an implementation period (mid-line, endline) is given by:

354. $Ii = Yi\ (1) - Yi\ (0)$ where $Yi\ (1)$ indicates the value of the variable Y observed at the end of the period for individual i, and Yi (0) indicates the counterfactual situation, i.e. the value that variable Y would have taken at the same time if the individual had not been included in the treatment.

355. The analysis will focus on the average impact of the program on the treatment units as a whole. For each analysis unit i, if the status in relationship to the program is referred to as "S", two modalities are possible: the unit can be beneficiary of the program $(Si = 1)$, or not beneficiary $(Si = 0)$. Therefore, the average impact of the program on the beneficiary units is $I = E\ [[Yi\ (1) - Yi\ (0)\ |\ Si = 1]$.

356. The counterfactual situation for the group of beneficiaries (treatment group) is not observable, but is to be estimated using different methods. The most commonly used method is to compare this situation with the one observed at the end of the period for a group of non-beneficiaries (comparison group), provided this latter group is be sufficiently similar to the treatment group.

357. For beneficiaries $(Si = 1)$, one can observe the values $(YiT\ |\ Si = 1)$ of the variable of interest Y if the unit is in the treatment, while the values of the counter-factual situation $(YiT\ |\ Si = 0\ )$ if the individual was not part of the treatment, it is unobservable. For non-beneficiaries (Si = 0), one can observe the values $(YiC\ |\ Si = 0)$ of the variable of interest Y, while the values $(YiC\ |\ Si = 1)$ of the variable Y if the individual had been part of treatment are not observable. In this case, the average impact of the program is measured by:

$$I = E\ (YiT\ |\ Si = 1) - E\ (YiC\ |\ Si = 0)$$

358. **Selection bias** .The measure of the impact as it was formulated previously can be decomposed into two terms $I = [[E\ (YiT\ |\ Si = 1) - E\ (YiC\ |\ Si = 1)] + [[E\ (YiC\ |\ Si = 1) - E\ (YiC\ |\ Si = 0)]$. The first term rated $IT = [[E\ (YiT\ |\ Si = 1) - E\ (YiC\ |\ Si = 1)]$ measures the "average impact of the program on the treaties" by comparing the observed values on the actual beneficiaries of the program and the values taken if the units of the comparison group had been processed. While the second term referred to as B = [[E $(YiC\ |\ Si = 1) - E\ (YiC\ |\ Si = 0)]$ measures the selection bias. The main challenge is to find the best method to minimize this selection bias that is usually unobservable.

359. **Methods for determining the counterfactual situation.** The quality of the counterfactual situation estimate depends on the construction of the comparison group that most resembles the treatment group on the following points:

- on average, the characteristics of the population in the comparison group are statistically identical to those in the treatment group;
- the population in the comparison group must have the same responses to the program as the treatment group;
- the population of the comparison group should be exposed to only the same interventions (programs) or circumstances (shocks external to the program or contamination effects) as those encountered by the beneficiary group, with the exception of the program to be evaluated during the impact evaluation period.

360. In reality, some of these criteria are not met, which raises a problem. In this sense, the FIAVOTA program has specificities.

a. First, interventions are urgent actions. The beneficiary group is specifically selected and represents the all households with children under 5 enrolled in nutrition sites and living in the communes of the 5 districts most affected by the food difficulty (GAM rate above 5 percent) - with no exclusion. Beneficiaries are not randomly selected and access to the program is strongly linked to a small number of observable factors. Though households have no obligation to join the program, the share of self-selection is minimal given the widespread precariousness.

b. Secondly, the households have very specific characteristics (relatively low sex ratio, catastrophic nutritional status, enrollment at nutrition sites, poor access to drinking water, poor access to economic activities, weather conditions lending to drought, remote areas limiting the availability of consumer products). All these characteristics constrain their resilience and their daily behavior.

c. Thirdly, several projects and programs (social protection, economic development, environment, etc.) operate simultaneously in the intervention areas of the FIAVOTA program and the target populations, products, and periods of intervention vary across programs while overlapping in many cases.

361. The methodology varies according to the type of impact (gross impact-net impact, immediate effects-intermediate effects-long-term effects), the assumptions used, the potential selection biases as well as the availability of data.

Appendix 2: Database

Objectives of the databases.

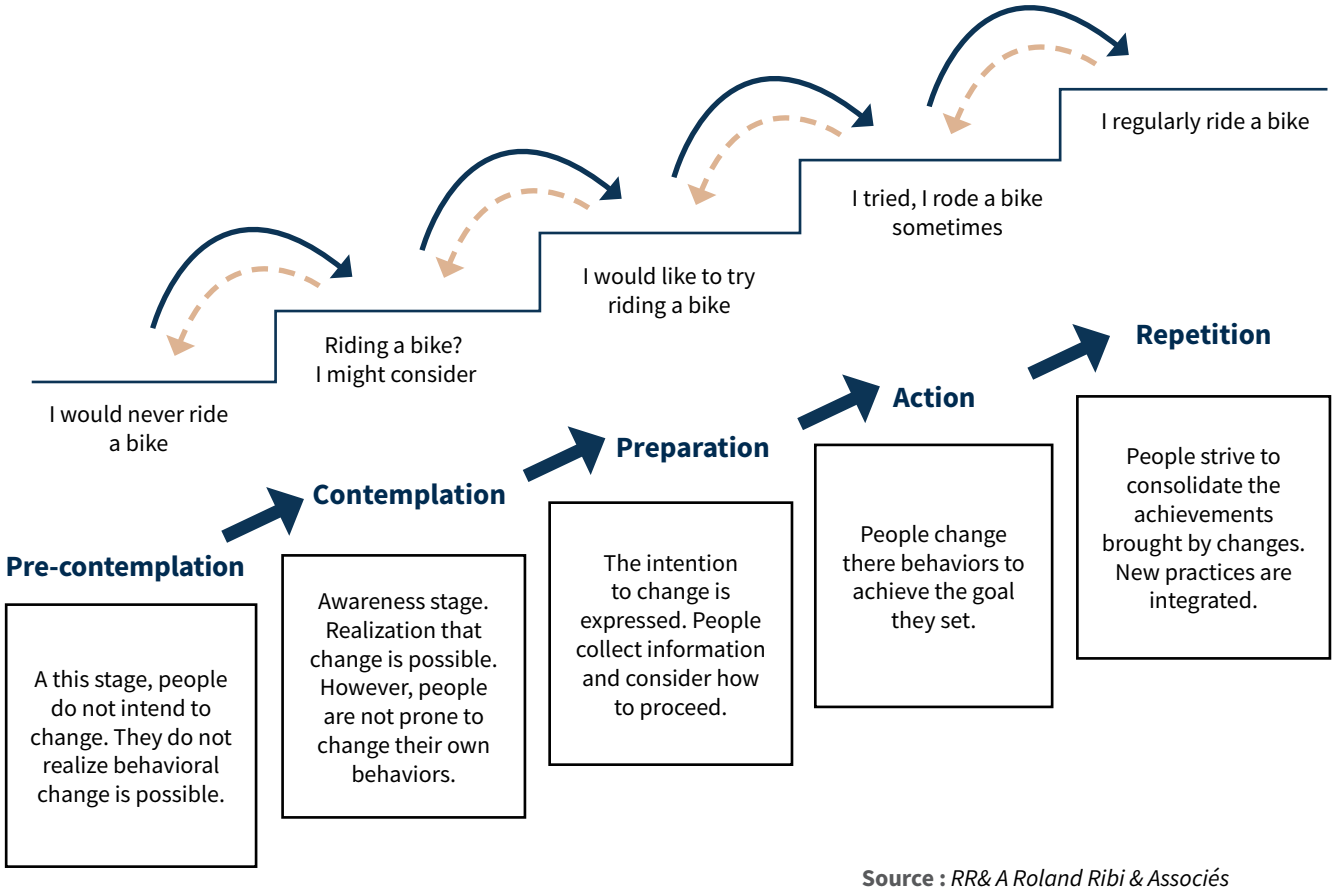
362. The databases should provide information to feed the mechanism in place: household characteristics for propensity score matching, results and impact indicator calculations to track program implementation and progress, overall descriptions of the baseline and changes in the households' living conditions and socio-economic environment, measures of program impacts not only at the individual level (child, female) but also at the household, the market or the community levels, values of dependent variables and explanatory variables for econometric models on panel data.

363. **The survey universe** is made up of all the households benefiting from the FIAVOTA program as well as all the fokontany of residence, all the additional households to be targeted by the FIAVOTA program during the phase 2 of the program, all non-beneficiary households enrolled at nutrition sites not covered by the FIAVOTA program during the first phase, all households in the districts of Ampanihy-West and Taolagnaro enrolled in nutrition sites located in areas classified as "Requires monitoring".

364. **The architecture of the databases** is described as follows:

Year	2016	2018	2019
Survey	- Baseline survey on beneficiaries of phase 1	- Mid-term survey on the beneficiaries of phase 1 -Baseline survey on additional beneficiaries of phase 2 -Baseline survey on non-beneficiaries from sites not covered - Baseline survey of non-beneficiaries from the sites of Ampanihy-Ouest or Taolagnaro	- Endline survey on the beneficiaries of phase 1 -Endline survey on the additional beneficiaries of phase 2 - Endline survey of non-beneficiaries from non-covered sites - Endline survey of non-beneficiaries from the Ampanihy-West or Taolagnaro sites
REPRESENTATIVENESS	***REGION***	***REGION***	***REGION***
Sample		Panel + control group	Panel
Collection period	December 20 to January 15	April 27 to June 10, 2018	April 27 to June 10, 2019

Appendix 2: Steps of behavior change



Source : *RR& A Roland Ribi & Associés for the urban Communication of Strasbourg*

December 2018

MID-TERM EVALUATION RESULTS THE FIAVOTA PROGRAM

Main Report