

# Fiavota Phase 1 Emergency and Recovery Cash Transfer in Madagascar Midline Report

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# Impact Evaluation of Fiavota Phase 1 Emergency and Recovery Cash Transfer in Madagascar Midline Report

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## Abbreviations and Acronyms

AIR	American Institutes for Research
FAO	Food and Agriculture Organization of the United Nations
FID	Fonds d’Intervention pour le Développement
HFIAS	Household Food Insecurity Access Scale
IRB	Institutional Review Board
MPPSPF	Ministry of Population, Social Protection, and Support for Women
ONN	National Nutrition Office
PSM	Propensity Score Matching
RIMA	Resilience Index Measurement and Analysis
TMDH	Human Development Cash Transfer Programme
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children’s Fund

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*The contents of this evaluation report are the sole responsibility of the contractor and can in no way be taken to reflect the views of UNICEF.*

# Executive Summary

This report provides results of an impact evaluation of the first phase of the Fiavota cash transfer programme for drought-affected households in southern Madagascar. In 2016, the United Nations Children’s Fund (UNICEF) in partnership with the World Bank and Ministry of Population, Social Protection, and Support for Women (MPPSPF) started giving cash transfers to households with young children. The first phase of the transfer covered 56,729 households and ended in March 2018. The American Institutes for Research (AIR) was contracted by UNICEF Madagascar to help design and implement an impact evaluation of the first phase of the programme (with a non-experimental design). The primary purpose of this impact report is to present the main results from the first phase of the cash transfer programme on immediate livelihood effects, immediate nutritional effects for children, food security for households, broader effects on households and programme performance during the Emergency Response phase of Fiavota, from December 2016 to September 2017.

**The Context:** The El Niño weather phenomenon reduced rainfall in southern Madagascar to the point that the Malagasy government declared a state of emergency in September 2016. The South of Madagascar is one of the least developed places in the country; as such, the nutritional, agricultural, and educational development levels were low even before the drought. Furthermore, the climate in the South is already arid; thus, any reduction in rainfall can be disastrous for farmers. Rainfall was very low during the 2015–16 rainy season, at only 50 to 80% of normal rainfall (Di Liberto, 2016). Crop yields in 2016 were 90% lower than usual. During 3 years of drought, 2014–16, the number of people the World Food Program USA defines as hungry increased by 900% (World Food Program USA, 2016). More than 1 million food-insecure people live throughout the South (European Commission’s Directorate-General for European Civil Protection and Humanitarian Aid Operations, 2016).

**The Programme:** To address the severe food insecurity, UNICEF partnered with the World Bank to implement an emergency cash transfer to meet the basic needs of children and their families called Fiavota. The transfer was delivered in the five southern districts with the highest rates of malnutrition in Toliara Province. The programme targeted families with children younger than 5 years old during the first year of the transfer, beginning in December 2016. In Phase 1 the programme focused on meeting households’ immediate nutritional needs and supporting livelihoods. The Fiavota transfer combined an initial large transfer called the recovery fund, subsequent smaller monthly transfers, and nutrition training for children’s caregivers. Beneficiary households would first receive 90,000 Ariary that they were required to spend on a resilience-building item (for many, this was reportedly a goat). Subsequently, households received 30,000 Ariary per month, which was paid on a monthly basis. In the second and third years of the programme (2018–2020), the transfer will extend to approximately 12,000 households, the majority of which have at least one child between 6 years and 12 years old. During this phase (Phase 2), the programme will focus on building household resilience.

**Impact Evaluation:** UNICEF commissioned this study with the purpose of learning about the effects of cash transfers in environmental humanitarian contexts. This study will help funders understand how to address the acute needs of poor households in drought-affected southern Madagascar. Relatively little research exists on the use of cash transfers in humanitarian crises and

even less in Madagascar. By studying a regionwide programme like Fiavota, stakeholders can better understand what outcomes can be affected by such a programme. This evaluation occurs at the midline point of the programme. The midline Phase 1 evaluation covers the first year of the programme, and we will repeat the analysis after the second year of the programme at endline. Midline data collection activities were carried out during April to June of 2018, before the programme's expansion to new beneficiaries. The Phase 1 evaluation uses cross-sectional, quasi-experimental methods to estimate the impact of the Fiavota programme on the first phase of beneficiaries. We use propensity score matching (PSM) techniques to create treatment and comparison groups that are similar in terms of the characteristics that the transfer would not affect.

The study investigates the effects of the programme at both the household and individual levels because the cash is delivered to the head of the household who can spend the money however she or he desires, yet the programme targets households with children, thus the importance of investigating the effects on them as well. We first present the household-level impact estimates of the programme for Phase 1 beneficiaries, focusing on food security, consumption, agricultural production, resilience, economic activity, housing, and subjective well-being. We then present the effects of the programme on individuals, particularly focusing on children, including nutrition, health, protection, and education. We then present results about programme implementation, focusing on effectiveness and relevance.

**Food Security:** We find consistent impacts on food security by the programme for Phase 1 beneficiaries. Impacts range between 2 and 11 percentage point reductions for food insecurity measures such as skipped a meal due to lack of money (3 percentage point reduction), no food in household due to lack of money (9 percentage point reduction), and going to bed hungry (11 percentage points reduction). However, it is important to note that the levels of food insecurity among the beneficiary group remain quite high, with many indicators of food insecurity averaging more than 70% for beneficiaries. Thus, much more room exists for the programme to improve these indicators and further reduce food insecurity. In addition to reducing food insecurity, the programme also generated positive impacts on food consumption and diet diversity. These food category impacts are quite large compared with the food insecurity impacts, with the programme increasing the number households that ate meat or dairy by 23 and 22 percentage points, respectively. Roughly half of the beneficiary households ate meat compared with only 26% of the non-beneficiary group.

**Consumption:** We find a large impact on per capita food consumption consistent with the impacts reported on reductions in food insecurity. We estimate a 927 Ariary impact on total value of food consumed per capita, with treatment households consuming 2,651 Ariary worth of food per capita during the last 7 days. The programme demonstrates impacts consistently across most food items in the survey including grains (353 Ariary per capita); tubers (95 Ariary per capita); pulses (83 Ariary per capita); fruit and vegetables (roughly 60 Ariary per capita for each); and meat, fish, and poultry (99 Ariary per capita). Thus, the programme increases diet diversity and consumption of important food staples such as vegetables, fruits, fats, and proteins (pulses, meat, poultry, and fish).

We also find impacts on consumption of common non-food items also consistent with other cash transfer studies. The programme increased consumption of soap and personal care products (146 Ariary per capita and 95 Ariary per capita, respectively). This result could lead to improved

health outcomes in the medium-to-long term because hand washing and bathing can greatly reduce the spread of viruses and bacteria associated with common childhood diseases as well as flu and cold transmission. The programme also increases consumption of matches, lighters, candles (16 Ariary per capita) and paraffin fuel (128 Ariary per capita). We find a decrease in consumption of charcoal and firewood of 380 Ariary per capita, suggesting that beneficiary households are switching from charcoal and firewood for cooking and lighting to others energy sources that may have fewer negative respiratory effects. If so, this result also would suggest that there are environmental and health benefits to the programme.

**Agricultural Production and Livestock:** We do not find an impact on the total value of crops produced, but do find impacts on some individual items. The programme generates a large impact on the amount of lentils and peanuts grown (106 kg for each), representing a roughly 500% increase over the comparison group. These results are consistent with the consumption and food security findings about eating more food with proteins and fat. Interestingly, we find a decrease in the amount of vegetables grown (31 kg), indicating that households might be replacing land usually used to grow vegetables with lentils and peanuts. We also find an increase in the quantity of maize grown by 138 kg, representing a 300% increase over the comparison group. We did not find an impact to the intensive margin for cassava or yams; however, we do find an impact to the extensive margin for cassava and yams, with a 10 percentage point increase and 4 percentage point increase, respectively. The programme generated an effect where 30% more households produce cassava than non-beneficiaries.

The programme produces impacts to livestock ownership in addition to crop production. The programme increases the number of households that own sheep (19 percentage points), goats (52 percentage points), and chickens (22 percentage points). These impacts are quite large given that between 50% (chickens) and 400% (goats) more beneficiary households own at least one of these types of livestock than comparison households. This result is not terribly surprising though because the programme started with an initial lump sum transfer that encouraged beneficiaries to make a larger investment purchase, especially in livestock.

**Resilience:** We find that Fiavota improved beneficiaries' resiliency as defined by the FAO. Most of this impact comes from their improved food security and reducing the number of households who turn to negative coping strategies. Beneficiary households are less likely to reduce the amount of food consumed per meal, reduce the number of meals they consume to cope with shocks, gather wild food for meals, sell off household goods, or send household members to another house for meals. Together, these effects mean that beneficiary households are more stable and can pursue positive coping mechanisms to deal with shocks instead of negative ones that push them further into poverty and create other problems.

**Housing:** We find that the programme generates large impacts for improved access to a latrine and healthy sources of lighting. The programme had a 28 percentage point impact on latrine access, more than doubling the treatment group's access to a latrine compared with non-beneficiaries. Half of the treatment group now has access to a latrine; however, there is still much room to improve given the importance of accessing a latrine and that half of the beneficiaries still do not have one. This result should help improve beneficiaries' health over time given their improved sanitation. Similarly, the programme increased the use of non-wood-burning methods for lighting by 22 percentage points. Using open fires for lighting the house is

dangerous and constantly breathing in wood smoke is unhealthy. Almost all of the beneficiaries (87%) use other sources for lighting instead of an open fire.

**Child Nutrition:** We find mixed results regarding the programme's impact on child nutrition. We find that the programme increased the likelihood of ever being breastfed for children younger than 2 years old, with an 8 percentage point impact. However, the programme decreased the likelihood that children are currently being breastfed. It is unclear why these two, seemingly contradictory, results occur. Similarly, we find the programme reduced instances of wasting and malnourishment (measured by MUAC) by 2 and 5 percentage points, respectively; however, stunting increased by 7 percentage points in the treatment group. When we focus on children under 2 years old, we see that results hold for reducing acutely malnourished children (measured by MUAC) but fail to detect effects on other anthropometric measures among infants.

Child nutrition indicators are very sensitive to measurement error and can provide incorrect results if the measures are not taken very precisely. The data collected on nutrition possibly were not of the highest standard and might have led to these contrary results. Evidence to date suggests that cash alone has not been successful at improving young child nutrition on average due to the complexity of factors that underlie malnutrition (de Groot, Palermo, Handa, Ragno, & Peterman, 2017). These results have led to advocacy for 'cash-plus' approaches that leverage synergies between cash and complementary services and linkages such as nutritional supplements, water and sanitation interventions, agricultural subsidies, and healthcare programmes (Roelen et al. 2018). Research on cash plus models is scarce and investigating if and how 'plus' models can be best leveraged for positive impacts on children is of high interest. Fiavota will provide additional insight into how the nutrition support can enhance transfers.

**Child Health:** We find consistent and large effects on improved child health across all indicators. Caregivers report that their children of all ages are in better health than the comparison group by almost 10 percentage points. Similarly, a greater number of treatment children's health improved compared with non-recipients. Beneficiary households are 26 percentage points more likely to visit a health centre, representing an almost 100% increase over the comparison group. Beneficiary households also spend more money on child healthcare than comparison households, spending roughly 30% more.

**Child Protection:** We do not find any impacts of the programme on parental engagement with their children with respect to monitoring their education, health, and playing with them, which would have been encouraged during the supplemental trainings. However, these indicators are already at quite high levels in both the treatment and comparison groups, indicating a lack of room for the programme to generate additional impacts. In other words, a ceiling effect might be occurring for these indicators.

We find large and consistent impacts for the rest of the child protection indicators except shoes—almost no child has shoes. Children in beneficiary households are 4 percentage points more likely to not engage in economic activity in the last week. More beneficiary children have access to a blanket and second set of clothing, with a 10 percentage point and 20 percentage point impact, respectively. Parents in the treatment group prefer their son and daughter to marry at a slightly older age than parents in the comparison group, though the difference is less than a year for both genders. Parents in the treatment group also desire their children to complete at least 2 more years of education than parents in the comparison group desire.

**Children’s Education:** We find large impacts on school enrolment, with a 29 percentage point increase for beneficiary children, bringing them to a 72% enrolment rate. Similarly, beneficiary children attended school more often, averaging 0.34 more days per week than comparison children at 4.67 days per week. This indicator tops out at 5 days a week, so there is less room for the programme to show improvements. More beneficiaries report having sufficient funds for school fees with an 11 percentage point impact. We find a negative effect on whether the child received food in school, with a 13 percentage point decrease. Perhaps this indicates that schools are less likely to provide food for children if they know the child receives the transfer. This is something for the programme implementers to investigate further.

**Effectiveness:** Overall, people know about the programme and where to access information; however, there is some misunderstanding about eligibility, payment frequency, and where the funds originate. Despite advertising the transfer schedule 7 days in advance, more than half of the beneficiaries (55%) report not knowing when they will receive their next transfer. Understanding the recurring frequency of the transfer helps households plan for the future and manage their finances. We find that beneficiaries have, in general, a positive experience receiving the transfers with reasonable travel time to access payments at low cost to them. Perhaps most telling is that 94% report receiving the transfer “without trouble.” A beneficiary travels an average of 35 minutes to receive her transfer, though roughly 25% of beneficiaries must travel more than an hour. Reducing the travel time of those who must travel more than an hour, especially those who travel upwards of 2 hours, might represent a way to improve the programme and in turn the impacts it can generate. Regardless of their travel time, almost everyone reports receiving the transfer without having to pay money (99%).

**Relevance:** We conclude that the Fiavota programme was relevant to the stakeholders responsible for the programme and beneficiaries receiving the programme. The first goal for Fiavota is save lives through improved food security and livelihoods, especially among children younger than 5 years old. The programme demonstrates strong effects for improving food security and in turn reducing the use of negative coping strategies, although there is still room to improve across these domains with more than half of the beneficiaries still suffering from severe food insecurity. The second goal for Fiavota is to maintain the humanitarian situation by strengthening access to key services. We find that beneficiary households are more likely to attend health centres and their children more likely to attend school. The third and final goal for Fiavota was to develop an exit strategy as part of the early recovery process. The Fiavota program improved households’ resilience and productivity, both of which can contribute to households’ well-being after the transfer ends.

**Conclusion and Recommendations:** The first phase of Fiavota consisted of two elements, a lump sum transfer called the recovery fund and a recurring bimonthly transfer, with the goal of helping vulnerable rural households deal with the negative shock to their livelihood caused by the regional El Niño drought. This impact evaluation highlights both the potential for programmes like Fiavota to improve food security and household livelihoods *and* the challenges of improving these outcomes in humanitarian crisis settings. We find that Fiavota produces impacts on the primary needs of households after as many as 16 months of implementation. In the protective domain, the programme increases food security, overall consumption, diet diversity, health for adults and children, and enables households to engage in positive coping strategies in the face of shocks. It further leads to improvements in the material well-being of



children in terms of possession of clothes and blankets. In the social domain, Fiavota generates large increases in school enrolment. Indeed the impacts produced by Fiavota are some of the largest schooling effects reported for any cash transfer programme, whether conditional or unconditional, at close to 30 percentage points' impact on enrolment. Finally, in the productive domain, Fiavota promotes agricultural activity by increasing crop production and ownership of agricultural assets such as livestock. The combination of impacts thus improved the overall resiliency of households to manage and cope with shocks, an important goal of the programme.

Yet another side to this story is about the limitation of the programme to move households into a less vulnerable situation. Although the programme leads to increased food consumption, beneficiary households remain at very high levels of food insecurity, with 89% reporting that they skip meals due to lack of money and 74% reporting that there is no food in the household due to lack of money, while 60% spent the night without eating and 55% spent the entire day without eating. We do find the transfer reduces some child nutritional outcomes (wasting and MUAC malnourishment) but not others (stunting and underweight). Most cash transfer programmes in sub-Saharan Africa do not demonstrate positive impacts on child nutrition, and the latest theory argues that cash transfers need to be supplemented by other nutrition-related programmes, such as education about child feeding, access to clean water, and improved sanitation, to have an effect on child nutrition. The programme generates inconsistent impacts to the intrahousehold dynamics with mixed positive and negative impacts, both at low levels (3 percentage points).

Overall, it appears that the programme generates a number of positive impacts across many important domains, demonstrating that the programme is implemented relatively well in a challenging environment and that beneficiaries use the transfer in meaningful and successful ways. The research team has some concern about the ability of the study to identify impacts accurately and attribute them to the programme. This study is a quasi-experimental design that relies on PSM techniques to identify a comparison group to serve as the counterfactual. The research team does not have baseline measures for the comparison group, thus we can only match treatment and comparison households on observed characteristics at endline that are not affected by the programme, such as age, gender, caregivers' education level, and family size.<sup>1</sup> Other factors that are not measured or observed quite possibly could affect the outcomes of interest, yet are not related to the cash transfer programme, such as knowledge of farming or motivation to produce. Systematic differences might have been between the two groups before the programme started that we cannot account for because they are outcomes of interest. The fact that we find consistent impacts across so many different domains and that our matching process created very strong matches challenges the idea that one missing variable explains everything. Instead, there likely would have to be many missing variables for different domains, making this scenario less likely, yet we cannot rule it out from this study design.

This study is an impact evaluation with primary objectives to provide evidence on the effectiveness of the programme that can both feed into broader policy discussions and global learning, and not necessarily to provide recommendations about programme implementation. However, the authors generated several recommendations based on the results of the study. We

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<sup>1</sup> There are baseline data for treatment households only. These cannot be used in the analysis because we do not have the data for comparison households.

provide a mix of recommendations about the programme design, implementation, and future research suggestions.

1. The Fiavota programme had two elements in Phase 1, a recovery fund transfer paid in a lump sum to encourage investment in productive assets and a recurring bimonthly transfer. The programme demonstrates large impacts on productivity, especially on livestock ownership, signifying that the recovery fund lump sum transfer worked as intended. We recommend maintaining this element of the programme for future beneficiaries as they initially enrol in the programme as it seems to provide a good jump start toward building resiliency.
2. Although we did not find programme impacts on young child nutritional outcomes, the evidence suggests that food consumption and access to healthcare rose. This result is common among many child-targeted cash transfers in sub-Saharan Africa. We recommend linking the programme with other services and programmes that also may affect child nutrition to leverage a multidimensional approach to improving child nutrition. Such services and programmes include improving access to clean water sources, education about water and sanitation practices, and education about proper child feeding practices.
3. When investigating the operational performance of the programme, as described in more detail below, we learned that recipients of the programme may have misunderstood key aspects that may affect their behaviour. For example, recipients did not clearly understand why they were eligible to receive the programme and what the selection criteria are. Similarly, they may have falsely believed that the programme could end abruptly or that they may not know when they will receive their next payment, affecting their spending behaviour. We recommend clear communication about the programme to the community and beneficiaries that may improve programme operations for how people use the transfers.
4. Our last recommendation relates to the study design. This study did not include baseline measures for the comparison group. The evaluation team were not part of the baseline study and thus could not address this concern when baseline was conducted. The lack of baseline measures for the comparison group meant that the study could not establish baseline equivalence between the treatment and comparison groups to demonstrate that they started at the same place. It also prevents the evaluation team from using a longitudinal analysis that controls for factors affecting outcomes over time unrelated to the programme. For these reasons, best practice is considered to include both the treatment and comparison groups in a baseline measure of an evaluation study, and we recommend future studies to follow these best practices.

# 1. Context of the Evaluation

This report provides results of an impact evaluation of the first phase of the Fiavota cash transfer programme for drought-affected households in southern Madagascar. In 2016, the United Nations Children's Fund (UNICEF) in partnership with the World Bank and Ministry of Population, Social Protection, and Support for Women (MPPSPF) started giving cash transfers to households with young children. The first phase of the transfer covered 56,729 households and ended in October 2017. The American Institutes for Research (AIR) was contracted by UNICEF Madagascar to help design and implement an impact evaluation of the first phase of the programme (with a non-experimental design). The primary purpose of this impact report is to present the main results from the first phase of the cash transfer programme on food security, consumption, agricultural production and livestock, resilience, economic activity, housing, subjective well-being, intrahousehold dynamics, nutrition, health, child protection, education, and adult well-being during the Emergency Response phase of Fiavota, from December 2016 to September 2017.

## 1.1. Context and programme

The Fiavota programme supports households with children facing severe drought caused by the El Niño weather phenomenon in southern Madagascar. This type of drought is especially dangerous given the low level of human development and the already arid environment. During the three years preceding Fiavota, the number of food insecure individuals increased nine-fold (World Food Program USA, 2016). The government declared a state of emergency in early 2016, with more than 1 million food-insecure people living throughout the South (European Commission's Directorate-General for European Civil Protection and Humanitarian Aid Operations, 2016). This drought is part of a series of environmental disasters occurring in succession in the south of Madagascar. There was a drought in 2014, severe locust infestations in 2015, and then the severe El Niño drought in 2015 which peaked in 2017 (OCHA, 2018). As recently as October 2017, the National Office for Risk and Disaster Management (BNGRC) estimated that 54% of the 1.6 million residents of the south need urgent assistance to preserve their livelihoods, reduce food insecurity, and alleviate malnutrition (BNGRC, 2017). To address the severe food insecurity, the government of Madagascar with support from UNICEF and the World Bank to implement an emergency cash transfer and nutritional support to meet the basic needs of children and their families. UNICEF and partners were concerned about the immediate effects of the drought on children's wellbeing, especially nutritional wellbeing. The project also addresses UNICEF's mandate to support children's welfare by supporting their family's livelihood and ability to provide for themselves. The transfer was delivered in the five southern districts with the highest rates of malnutrition in Toliara Province to households who registered their child at their community's nutrition site. During the first year of the transfer, beginning in December 2016, the programme targeted families with children younger than 5 years old. During this Emergency Response phase (Phase 1), the programme focused on meeting households' immediate nutritional needs and supporting livelihoods. The programme aimed to stabilise household revenue, support households rebuilding assets, and strengthen access to nutrition services. For the second and third years of the programme (beginning in mid-2018), the transfer extended to approximately 12,000 households, the majority of which have at least one child between 6 years and 12 years old. During the second phase, the programme has the additional goal to support children's continued school enrolment and continue to focus on building

household resilience. The objectives of the programme reflect UNICEF's Core Commitments for Children in Humanitarian Action (UNICEF, 2010). This guiding document focuses efforts on important areas such as child protection, nutrition, education, health, and others. This document lays out UNICEF's human rights based approach as a framework to promote human development.

UNICEF, in conjunction with the World Bank, supported an independent evaluation of the cash transfer and nutritional support programme to understand the effects of cash in emergency environmental settings. This focus demonstrates UNICEF's commitment to accountability and timely project evaluation for interventions supporting children's wellbeing (UNICEF, 2010). The purpose of the evaluation is to learn how providing cash and nutritional support in emergency settings can improve children's and households' outcomes. This evaluation will focus on nutrition, access to basic health services, meeting basic material needs, investment in productive assets, food security, and resilience. There will be two components to the design. The first component is the subject of this report and will provide immediate impact estimates and feedback on the programme's first-year (Phase 1) activities. This information can be used to identify Fiavota's strengths and its opportunities to improve. We will evaluate this component using a cross-sectional design because of a lack of longitudinal data for a comparison group. The second component will focus on the effects of Phase 2 and is outside the scope of this report.

## 1.2. Roadmap

The remainder of this report proceeds as follows:

**Section 2** provides a detailed description of the programme, including the different phases covered by this evaluation.

**Section 3** provides details on the purpose, objective, and scope of the evaluation to explain what the evaluation aims to do and what the evaluation will not do.

**Section 4** presents the programme's theory of change as designed by stakeholders and discusses the possible pathways that the Fiavota programme might affect programme goals. We designed the evaluation and identified key outcomes based on this theory of change.

**Section 5** presents the study design. We discuss the identification strategy in detail, including estimation strategy, instruments, data collection activities, and limitations.

**Section 6** begins the impact findings of the study, focusing on household outcomes, including food security, consumption, agriculture, resilience, economics, housing, subjective well-being, and intrahousehold dynamics.

**Section 7** discusses impacts focusing on individual-level outcomes including child welfare, child protection, health, education, and labour.

**Section 8** presents findings on the effectiveness of the programme to describe transfer implementation.

**Section 9** presents findings for the relevance of the transfer, discussing how the programme did or did not align with stakeholders' goals.

**Section 10** concludes with a brief summary of findings, provides recommendations, and consolidates everything in a concise story.

We include multiple appendices at the end of the report that contain tables, figures, and technical explanations of methods or analyses that are referenced throughout the body of the report.

## 2. Description of Fiavota

Fiavota is a cash transfer and nutritional support programme initiated in response to a severe drought affecting southern Madagascar. The El Niño weather phenomenon reduced rainfall in southern Madagascar to the point that the Malagasy government declared a state of emergency in September 2016. The South of Madagascar is one of the least developed places in the country; as such, the nutritional, agricultural, and educational development levels were low even before the drought. Furthermore, the climate in the South is already arid; thus, any reduction in rainfall can be disastrous for farmers. Rainfall was very low during the 2015–16 rainy season, at only 50 to 80% of normal rainfall (Di Liberto, 2016). Crop yields in 2016 were 90% lower than usual. During 3 years of drought, 2014–16, the number of people the World Food Program USA defines as hungry increased by 900% (World Food Program USA, 2016).

The Fiavota programme has four primary objectives: (a) stabilise household revenue, (b) support households rebuilding assets, (c) strengthen access to nutrition services, and (d) support children's continued school enrolment. There were no levels of wellbeing targeted for these objectives because the programme was implemented to address urgent needs.

The three key stages of Fiavota are as follows:

1. **Emergency Response (2016–17):** The programme provided families with unconditional cash transfers, livelihood recovery grants, and child-targeted nutritional counselling and supplements. (Phase 1)
2. **Early Recovery I (2018–19):** The programme has now shifted its focus from emergency response to supporting households' recovery. It does so by conditioning transfers on school enrolment for 6- to 12-year-old children, providing initial livelihood recovery grants for new recipients, and continuing the counselling and nutritional supplements plus vaccinations for children between 0 and 5 years old, while promoting preventative nutrition. (Phase 2)
3. **Early Recovery II (2019–20):** The programme will continue to provide the conditional cash transfer and livelihood recovery grants. The programme also will provide preventative and early identification of nutrition services. (Phase 2)

The objective of the project is to **improve the well-being** of poor households in the short term (to improve and stabilise consumption) and to encourage poor families to invest more in the education and health of their children. In the short term, the programme makes contributions to **meet their immediate and urgent needs** caused by food insecurity, such as hunger, acute malnutrition, and health problems of the most vulnerable groups, including children and women. In the medium and long term, the programme seeks to address the vulnerability to poverty and chronic household poverty by supporting local production and promoting income-generating activities and improving the physical capacity and professional skills of the community. UNICEF and the World Food Programme are co-leads on promoting access to basic services to meet these objectives. This strategy aligns with national and global efforts for social protection.

The programme began in different communities during December 2016 to May 2017 in five districts covering 56,729 households across 39 communes (see Appendix B for a map of the

villages participating in the study). The transfer began when a separate relief programme finished in all areas of a commune. Six communes received Fiavota transfers from December 2016 to April 2018; 20 communes received Fiavota transfers from March 2017 to April 2018; and 13 communes received Fiavota transfers from June 2017 to April 2018. Appendix B presents the location of each commune on a map and the exact number of surveyed individuals and households in each district. The transfer ended for all Phase 1 beneficiaries in October 2017 due to a transition from humanitarian objectives to broader development objectives. Because the transfer lasted for different durations, the evaluation will estimate the effect for the average length of the programme.

The implementers selected communes on the basis of the severity of malnutrition in their district. All the programme activities occur in districts with an average malnutrition rate at or above 6.7 (see Figure 1). To have been eligible, a family must have lived in a community with a nutrition centre, had a child between 0 and 5 years old, and registered one or more of those children at the nutritional centre. If they met those requirements, they were eligible to enrol for the first year of the transfer. The nutritional sites provide regular measurements for children and teach mothers how to provide nutritious food for their children and themselves. So, all children whose families have access to nutritional sites should have access to nutritional counselling.

There have been a number of different aid programmes that have operated in the regions covered by this evaluation. According to a village chief, there were several agricultural programmes operated by organizations such as CARE and GIZ. There was also a nutritional cash transfer run by the World Food Programme (WFP) that operated throughout the South. There was also a nutritional cash transfer run by the WFP that operated throughout the South. The WFP transfer should not confound the Fiavota evaluation because it covered both treatment and comparison areas and the transfer ended early in Fiavota's implementation. There was also a nutrition assistance programme in certain comparison areas but that ended over 5 years before Fiavota began.

Prior to Fiavota, there was a high level of food insecurity in the area. Table 0 describes the food security situation prior to the Fiavota transfers. 95 percent of households reported that they had difficulty accessing food. The majority of households also reported reducing the quantity of food and number of meals they ate, eating less-preferred food, and cutting back on adults' meals most days in the week prior.

**Table 0: Baseline Food Security**

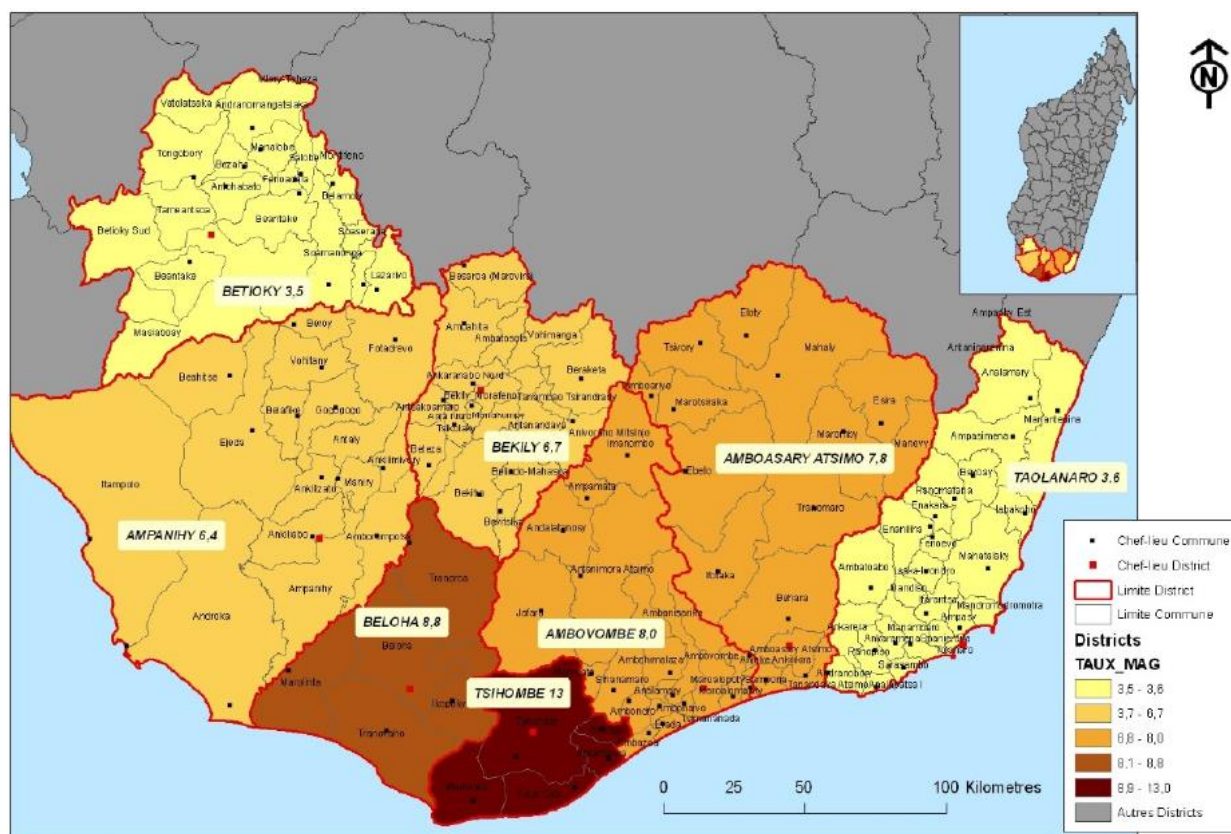
Outcome	Mean	N
% having difficulty accessing food	0.95	2481
Number of days:		
Reduce overall quality of food	5.42	2369
Reduce number of meals	5.20	2370
Borrowing foods	1.14	2370
Fall back on non-preferred foods	5.25	2369
Buy food on credit	1.93	2370
Collect wild foods	2.43	2370
Conduct an early harvest	0.82	2370
Send household members to eat elsewhere	0.46	2370
Have members beg	0.34	2370
Reduce meals for adults	4.14	2370
Conduct illegal activities	0.05	2370

Source: 2016 Baseline Survey

The Fiavota transfer combined an initial large transfer called the recovery fund and subsequent smaller monthly transfers. Beneficiary households would first receive 180,000 Ariary (about US\$ 60) that they were required to spend on a resilience-building item. Beneficiaries collectively decided how they would use this money and received trainings to facilitate that plan; many reported using these funds on raising goats. Subsequently, households received 30,000 Ariary per month, which was paid on a monthly basis. In larger areas, the money was disbursed by savings associations. In smaller areas that had cell phone reception, beneficiaries received transfers via Orange Money, a cell phone-based money transfer system. For areas with no savings associations and no cellular coverage, a local implementing partner would physically deliver money at least twice per month.



**Figure 1: Map of Malnutrition in Southern Madagascar**



Source: Fiavota 2016

During the Emergency Response phase, nutritional aid accompanied the money transfer. The families with registered children received distributions of Plumpy'Sup™, a nutritionally dense peanut-based product. In addition, each nutritional site received distributions of basic community nutritional items. Severely malnourished children received a referral to a health centre. All households had the opportunity to attend nutritional and health trainings.

In April 2018, the programme expanded to roughly 12,000 additional households.<sup>2</sup> Currently, the unconditional cash transfer falls under the Human Development Cash Transfer (TMDH) Programme. This reduced the cash transfer from roughly US\$10 to a maximum of US\$6-8 per household each month, depending on the number of children. The mother of the family will be the primary recipient, and transfers will continue until September 2019.

## 2.1. Key stakeholders of evaluation

This evaluation was commissioned by UNICEF under the Fiavota cash transfer and nutritional support programme partnership, which also includes the World Bank, Fonds d'Intervention pour le Développement (FID), ONN, and MPPSPF. Fiavota is primarily the effort of the MPPSPF in

<sup>2</sup> Households that received the transfer during Phase 2 either continued from Phase 1 or they joined the transfer rosters because they had previously not qualified, generally because they did not have a child younger than 5 years old.

collaboration with the National ONN. As the ministries ultimately responsible for the implementation of the cash transfer and supporting activities, the results of the evaluation will be very important for future Fiavota programming. The results also will prove helpful for the other cash transfers coordinated by MPPSPF and ONN.

The FID is the organization leading the efforts to implement the cash transfer. FID coordinates the logistics of delivering cash to beneficiaries and organises the trainings that complement Fiavota's cash transfers. The ONN is responsible for implementing nutrition-related activities. The evaluation should prove useful for FID to better understand how successful their efforts were and how they could be further improved.

UNICEF is a key funding and implementing partner for the Fiavota cash transfer and nutritional supplement programme through the Madagascar's Social Policy office. The evaluation provides validation for UNICEF's financial investment in Fiavota and a valuable opportunity to learn about effective humanitarian cash transfers in environmental emergencies. UNICEF provided US\$ 865,000, of which US\$ 825,000 funded the cash transfer.

The World Bank office in Madagascar shares responsibility for funding and implementing the Fiavota cash transfer and supporting activities. The World Bank led the effort to collect survey data for the evaluation. They have arranged for contextual expertise by hiring a local researcher and a local data collection firm to ensure effective and efficient data collection. Overall, the World Bank contributed US\$ 35 million: US\$ 25.5 million for cash transfers, US\$ 8.5 million for nutrition, and US\$ 1 million to support MPPSPF. The World Bank has a similar interest in the results of the evaluation for future programming.

## **2.2. Theory of Change and Research Questions**

We ground our analysis in theory to identify how and why the Fiavota cash transfer programme and related activities would affect children's nutritional outcomes.

**Activities:** Fiavota's monetary transfer and nutritional activities are designed to address the nutritional problems faced by vulnerable households in the South. 40% of children in southern Madagascar face malnutrition, and one third of children have left school due to household food insecurity (World Food Program USA, 2016). The purpose of the Fiavota cash transfer programme is to alleviate children's food insecurity and to help their households build resilience. During the Emergency Response phase, households received roughly US\$10 per month per household. Funds were distributed by locally operating financial institutions such as L'Agence d'Encadrement (AGEE). No conditions were placed on the cash transfer for the Emergency Response phase. Households also receive nutritional support in the form of counselling and supplements. During the Early Recovery phase, households in the programme with children between 0 and 5 years old are required to comply with health-related conditions such as vaccinations and nutrition counselling. In addition, the focus of the nutritional support will shift to prevention of nutritional problems. Households work closely with their community's Social Protection Committee (CPS) to resolve any problems with the transfer or targeting.

## ***Theoretical motivation for evaluation***

Policy-relevant research should be built on a theory of change that maps out the causal chain across activities, outputs, outcomes, and impacts, as well as the assumptions that underlie that theory of change (White, 2009).

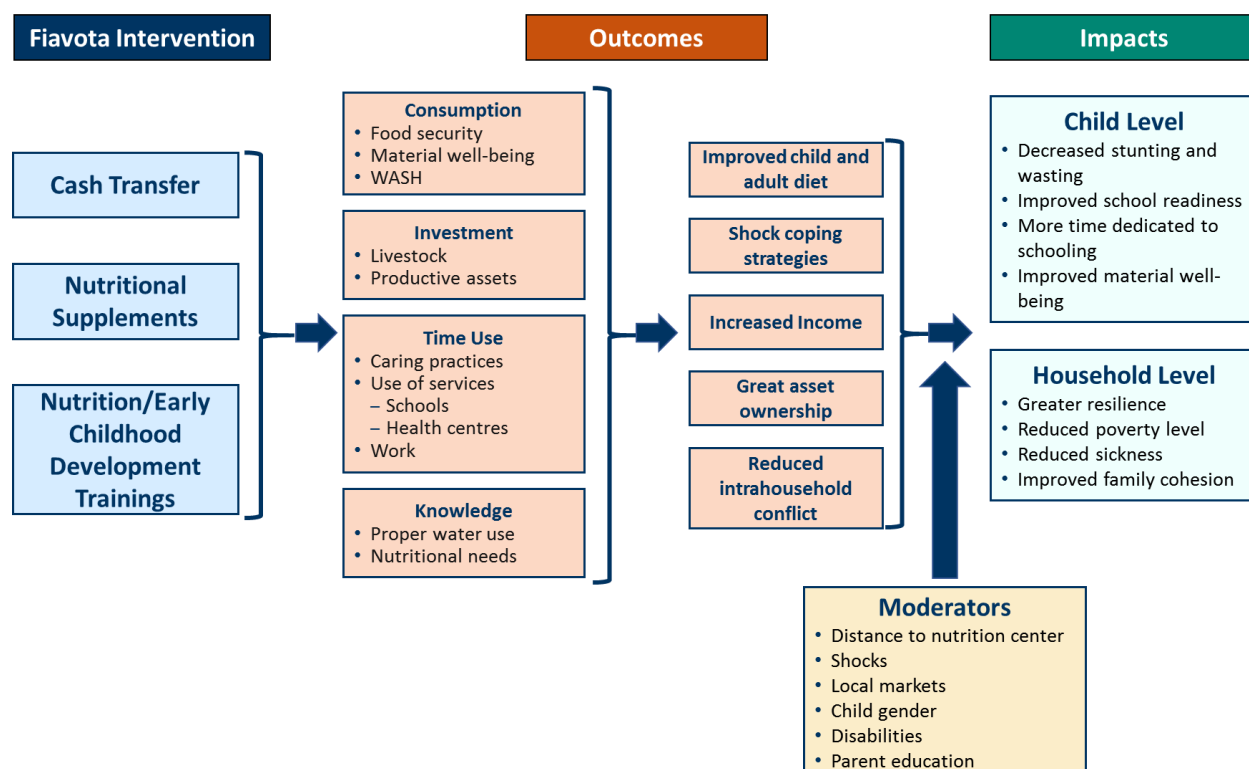
### **Pathways to impacts**

Households with very low levels of consumption spend almost all their income because they face pressing basic needs (Bengtsson, 2012; Maluccio, 2010). We therefore expect that among the beneficiary population, virtually all the cash transfers will be spent during the initial stages of the programme, with spending focused on meeting basic needs such as food, clothing, transport, and shelter (Bastagli et al., 2016). Once immediate basic needs have been met, and possibly after a period of time, the influx of new cash may then trigger further responses within the household economy—for example, investing in productive agricultural assets.

Households may be unable or unsure of how to provide their children with proper nutrition even if they have the cash to do so. For example, market imperfections may make nutritional food items unavailable for purchase, or a household may not understand the requirements of a balanced diet. The nutritional counselling and supplements will provide an enabling environment so that children’s health and nutritional status can improve.

Figure 2 unites these ideas into a conceptual framework that shows the ways in which the Fiavota cash transfer programme can affect household activity, the causal pathways involved, and the potential moderating factors. The diagram is read from left to right. We expect the cash transfer to have a direct effect on household consumption, knowledge, and investment in resilience-building activities. The impacts of the cash transfer and nutritional support may be smaller or larger depending on conditions in the household and local community. These moderators include household characteristics such as household size and parental education attainment, access to other services, climate, and other local shocks, such as crop disease, flooding, and so forth. Moderating effects are illustrated with lines that intersect the direct causal pathways between the cash transfer and outcomes, indicating that they may influence the strength of the direct effect. The key point is that any potential programme impact on children must work through the household by influencing spending or time-allocation decisions (especially use of health and nutrition services).

**Figure 2: Theory of Change**



## Research questions

The overarching research questions that follow will guide the study. The questions direct the evaluation of the programme's (a) impact, (b) effectiveness, and (c) relevance. Because the programme has separate Emergency Response and Early Recovery phases with different goals and challenges, we assess these three criteria for each phase of the intervention.

The evaluation assesses how well the programme matches the policies and priorities of all key stakeholders, including beneficiaries, funders, and implementers. The relevance research questions focus on the larger goals of those involved and determines whether the Fiavota programme was an appropriate approach to addressing them. The specific research questions are outlined in the evaluation's Terms of Reference (see Appendix F).

## Impact:

Our evaluation of Fiavota's impacts focuses on the changes we can attribute directly to the programme. Understanding the impacts of a programme is important because they represent the actual changes that occur in beneficiaries' lives. We developed the research questions according to the theory of change to test the key pathways and final impacts of the programme.

We divided our impact research questions into two main categories: household-level impacts and child-level impacts. The household-level impacts focus primarily on food security and the households' ability to withstand shocks. The child-level research questions focus on the nutrition, health, and child welfare of the beneficiaries. We also address key moderators

differently from key outcomes. We evaluate separately how the transfer may affect boys and girls differently.

### ***Household-Level Impacts***

#### **Meeting basic needs**

1. Does the Fiavota transfer improve households' food security?
  - a. Does the programme improve diet diversity?
  - b. Does the programme improve the number of meals per day?
2. Does the Fiavota transfer increase households' investment in productive assets?
  - a. Are beneficiaries more likely to own livestock?
  - b. Are beneficiaries more likely to own non-food items?
  - c. Do beneficiary households improve the quality of their living conditions?

#### **Affecting household behaviours**

3. Does the Fiavota transfer increase household resilience?
  - a. Are households less likely to use negative coping strategies?
  - b. Are households performing better on standardized measures of resilience (RIMA and CSI)?
  - c. Do households invest in productive assets, including livestock?
4. Does the Fiavota transfer encourage adults to be more economically engaged?
  - a. Are adults more likely to work in agriculture?
  - b. Are adults more likely to work in non-agricultural activities?
5. Does the Fiavota transfer change intrahousehold dynamics?
  - a. Do women in beneficiary households become more empowered?
    - i. Are women more involved with intrahousehold decisions?
    - ii. Are women more likely to be victims of violence?
6. Does the Fiavota transfer discourage male migration for work?

### ***Child-Level Impacts***

#### **Satisfying children's needs**

1. Does the Fiavota transfer improve child welfare?
  - a. Does the programme reduce stunting (low height for age), wasting (low weight for height), and being underweight (low weight for age) in children?
2. Does the Fiavota transfer improve health outcomes?
  - a. Are household members less likely to be sick?
  - b. Are household members less likely to forego necessary medical treatment?

- c. Are adults less likely to miss work because of illness?
- 3. Does the Fiavota transfer help households to meet children's basic material needs?
  - a. Is the status of children's UNGASS (United Nations General Assembly Special Session) material needs improved?
    - i. Do they own a blanket?
    - ii. Do they own a second set of clothes?
    - iii. Do they own a pair of shoes?
  - b. How does the programme affect spending on children?

### **Improving children's time use and activities**

- 4. Does the Fiavota transfer improve children's time use?
  - a. How does the programme affect school enrolment?
  - b. How does the programme affect child labour?

### **Improving prospects for children's future**

- 5. Does the Fiavota transfer affect girls differently from boys?
- 6. Does the Fiavota transfer affect the severely malnourished differently from the moderately malnourished?

### **Effectiveness:**

The ability of cash transfer programmes to achieve their goals and generate positive impacts is dependent on beneficiaries receiving the cash as intended by the programme design. For this reason, we also investigated the processes involved in implementing the Fiavota programme as part of our research. In addition to learning what works and identifying areas for improvement, the effectiveness evaluation helped to explain why the programme achieved certain impacts but not others. The effectiveness evaluation investigated the following primary questions.

### ***Process Questions***

- 1. Did beneficiaries receive the correct amount, on time?
- 2. Did beneficiaries report problems accessing or using funds?
- 3. Did beneficiaries receive communication from programme officials?
- 4. Did beneficiaries understand targeting?

We evaluate the relevance of the Fiavota transfers to assess how well the programme aligns with the goals and objectives of key stakeholders. It is important that the programme be part of a coherent strategy to meet the objectives of key stakeholders. Funders need to know that their money is accomplishing the results that they intend. Implementers need to know that their activities are promoting the results that they should. Beneficiaries need to receive aid in a way that aligns with the objectives of the programme.

The relevance findings focus on the extent to which the activities and outputs are aligned with goals and impacts. The questions below should each help us understand how well Fiavota aligned with the objectives of key stakeholders. The four relevance questions are arranged from the smallest unit (household) to the largest (country). Together they deliver a comprehensive understanding of the programme's relevance.

**Relevance:**

1. How relevant was the response for households affected by the drought/humanitarian situation?
2. How do communities with the Fiavota cash transfer programme change at the village level?
3. To what extent was the programme aligned to UNICEF's country office programmes in Madagascar?
4. To what extent was the programme aligned to policies and strategies in Madagascar?

The current research questions cover all child, household, and community outcomes that are covered by the surveys. Some of the questions listed in the Terms of Reference (see Appendix F) would rely on data outside the scope of the surveys. For example, this evaluation does not involve systematic discussion of policies and objectives with key informants from the government or implementers. Our primary data sources include the household and community surveys, which are best suited to answer the impact and relevance questions. However, through careful analysis and supplementary interviews with key stakeholders, the evaluation answers questions about Fiavota's relevance to the maximum extent possible.

All research questions link directly to outcomes in the survey instruments. In Appendix F, we present the one-to-one mapping of research questions to the survey items that will provide evidence for that question. In many cases, multiple pieces of data support a research question—for example, anthropometric measurements and self-reported food security both address food security issues.

## **2.3. Key Indicators**

The evaluation answers the research questions by using key indicators that test the pathways identified in the theory of change. Collectively, all the indicators that we use should answer the key research questions.

First, the survey collected basic information on household moderators to better understand how Fiavota leads to changes in key outcomes. Certain characteristics will create an enabling environment in which the transfer is more likely to lead to changes. For example, a household that lives farther from a nutrition centre would be less likely to take advantage of counselling and supplements.

We also use information on the moderators that will alter the way that the transfer affects beneficiaries. There are characteristics that complement programme activities and affect the way that the cash transfer leads to nutritional changes. For example, if a household lacks access to clean water, a child may face health challenges that will make healthy food less effective.

Next, we use information on the outcomes that measure household nutrition and resilience. Key nutritional outcomes include child wasting, stunting, underweight, and food security. Key resilience outcomes include exposure to shocks, market engagement, and asset ownership. The outcomes will measure the aspects of beneficiaries' lives that the transfers are intended to change.

Finally, this study used community-level information to control for the environment. This information includes the number and characteristics of education, health, and nutrition centres. We also use information on exposure to shocks, other interventions, and basic services.

## ***Domains of interest***

The key domains covered in the study are as follows:

- *Demographics*: Covers the basic makeup of the household; establishes who is in the household and provides descriptive information about them, such as marital status and age
- *Food security*: Primarily measured using the FAO's Household Food Insecurity Access Scale (HFIAS).
- *Consumption*: Measures household expenditures and consumption of food, non-food, and service items.
- *Agriculture*: Describes household crop growth and production.
- *Resilience*: Primarily measured using the FAO's Resilience Index Measurement and Analysis (RIMA) index and World Food Programme's Coping Strategy Index (CSI).
- *Economic*: Characterises households' financial well-being and sources of income.
- *Housing*: Describes the physical characteristics and utilities available in children's houses.
- *Subjective well-being*: Characterizes how households view the quality of their life.
- *Intrahousehold dynamics*: Describe the sources of conflict within households and women's decision-making roles.
- *Child welfare*: Provides further details on child-specific health outcomes.
- *Child protection*: Meets the needs of children for services and basic items.
- *Nutrition*: Anthropometric measures of children's nutritional status.
- *Health*: Measures the incidence of illness and treatment strategies for sick household members.
- *Education*: Establishes the education level of adults and measures child school enrolment.
- *Labour*: Characterises employment for pay and not for pay by both adults and children.
- *Operational performance*: Provides information on programme implementation and beneficiary perceptions.

Each of these outcomes will contribute to the evaluation either by directly answering a research question or by controlling for otherwise unobserved child-, household-, and village-level characteristics. Appendix D summarises which outcomes support each research question from the Terms of Reference.



### 3. Purpose, Objective, and Scope of the Evaluation

#### 3.1. Purpose of the evaluation

UNICEF commissioned this study with the purpose of learning about the effects of “cash plus” in environmental humanitarian contexts. This study will help the government of Madagascar, FID, UNICEF, the World Bank, and understand how to address the acute needs of poor households in drought-affected southern Madagascar using cash transfers and nutritional support programmes. The evaluation occurs as the programme transitions from an unconditional cash transfer to a conditional cash transfer. There are three primary parties that will use the evaluation.

- (i) The first user of the Evaluation is MPPSPF, which coordinates all social programmes and actions. The results will help in **designing social protection mechanisms in general and responses to emergencies in particular**. The evaluation will help to better understand the cyclical and chronic nature of vulnerability in Madagascar’s south.
- (ii) Another direct user of the evaluation is the FID, which need a broader coverage of the monitoring system. In this way, the results of the formative evaluation should enable **FID to assess progress more accurately in relation to results and then make possible operational adjustments to the different aspects of the programme**.
- (iii) For UNICEF and World Bank, as a formative evaluation, results will have a **learning rather than an accountability purpose**.

At the end of Evaluation, the Government of Madagascar, UNICEF, the World Bank and partners should have an improved understanding of how the Emergency and Early Response Cash Programmes impacted households, women, their children, the local economy, and communities. Relatively little research exists on the use of cash transfers in humanitarian crises and even less in Madagascar. By studying a regionwide programme like Fiavota, stakeholders can better understand what outcomes can be affected by such a programme.

#### 3.2. Related literature

This study relates to an extensive literature on the effects of cash transfer programmes on health, livelihoods, and education in developing country settings. As of 2015, unconditional cash transfers (UCTs) were being implemented in 130 countries, with conditional cash transfer (CCTs) programmes operating in 64 countries (World Bank, 2015). Evidence from cash transfer evaluations globally demonstrates that transfers alleviate the burden on families to meet their basic needs (Baird, Ferreira, Özler, & Woolcock, 2014; Bhalla, Handa, Angeles, & Seidenfeld, 2018; Fiszbein & Schady, 2009; Saavedra & Garcia, 2012). Although the use of cash transfers in low- and middle-income countries is well documented, existing evidence on the use of cash transfers in emergency environmental settings is more limited, though several studies have encouraging results (Brandstetter, 2004; Heltberg, 2007). This study aims to contribute toward addressing the knowledge gap on emergency cash transfer programming in countries like Madagascar.

Studies have shown large and consistent impacts of cash transfers on household food security. Cash transfers regularly increase food security, with the households spending the majority of the transfer on food (Case, 2004; Handa, Seidenfeld, Tembo, & Peterman, 2016; Miller, Tsoka, & Reichert, 2008; OPM, 2013; Berhane et al., 2015; OPM, 2014; OPM, 2015; Soares & Teixeira, 2010; Hedlund, Maxwell, & Nicholson, 2012). There is reason to believe coordinated interventions in the Fiavota region can meaningfully improve food security. The Malagasy Red Cross implemented a food security programme in Amboasary Atsimo, finding that farmers increased their production and used revenues for productive purposes (Antilahy, 2017). A review of the impacts of cash transfers on child nutrition (de Groot et al., 2017) concludes positive but generally insignificant findings related to child malnutrition. Malnutrition is a particularly relevant threat in Madagascar (UNICEF, 2017). So, the results of this evaluation will valuably inform the link between cash transfers and nutrition.

The evidence suggests that cash transfers improve livelihoods by reducing poverty at the household level and, in some cases, at the national level (Taaffe, Longosz, & Wilson, 2017). For example, an experimental evaluation of a UCT programme in northern Uganda demonstrated that average earnings rose by almost 50% during a 4-year period following the introduction of the programme (Blattman, Fiala & Martinez, 2013). A review focusing on the impact of cash transfers on livelihoods in six countries in sub-Saharan Africa found that small, regular transfers led to improvements in livelihood choices and stimulated productive investments while the availability of job opportunities and programme implementation affected impacts (Fisher et al., 2017). The review also recounts evidence from Zambia, Malawai, Kenya, and Lesotho which demonstrates that cash transfers increased agricultural and livestock production through investment in inputs.

The evidence indicates that cash transfers have positive effects on education in low- and middle-income countries. Recent systematic reviews and meta-analyses have documented the positive impacts of cash transfers on education outcomes (Baird et al., 2014; Fiszbein & Schady, 2009; Saavedra & Garcia, 2012), finding an average 6% improvement on school enrolment and a 3% improvement on student attendance. Effect sizes on schooling outcomes have been found to depend in part on the size of the transfer and access to schools.

This evaluation will contribute in a meaningful way to the literature on cash transfers in environmental humanitarian crises. Cash transfers may be used in different ways depending on the context. The effects of cash transfers is relatively well-documented in stable, development contexts. However, relatively few studies exist on how beneficiaries use cash transfers in humanitarian contexts. So, this study will help us understand whether beneficiaries will use transfers to invest in productive, livelihood-building expenditures.

### **3.3. Objective of the evaluation**

The evaluation covers three criteria: impacts, effectiveness, and relevance. The evaluation aims to estimate the impacts the Fiavota cash transfer and nutritional support programme had on beneficiaries' lives. The evaluation also describes the effectiveness of the programme in terms of how well it met its objectives. The last criterion is the relevance of the programme and how well it aligned with the policies and priorities of funders and implementers. The key evaluation topics are as follows:

1. **Immediate livelihood effects:** The evaluation aims to provide insight into the direct effects of the transfer on households' ability to provide for themselves. In particular, we examine the effects of Fiavota on sources of income and investment in agricultural assets and production.
2. **Immediate nutritional effects for children and food security for households:** A key goal of the programme was to support households affected by drought conditions and living in areas with high rates of malnutrition. The evaluation looks at the effects of the programme on overall household food security and the child-level nutritional outcomes.
3. **Broader effects on children's lives:** The cash transfer programme may have cascade effects on other important areas of children's lives. The study gives a comprehensive overview of these effects, including engagement in child labour, school attainment, and basic well-being.
4. **Broader effects on households:** The cash provided to households may lead to changes in intrahousehold dynamics, consumption patterns, housing conditions, and parental aspirations for their children.
5. **Mediators and heterogeneity:** The Fiavota transfer could affect specific subgroups in different ways. The evaluation will investigate how the effect of the cash transfer varies across key subgroups—for example, by gender and age.
6. **Programme performance:** The evaluation assesses how well the programme met its operational goals, such as distributing cash in a transparent, timely, and predictable manner. The evaluation also assesses how well the programme met its strategic goals, such as reducing malnutrition and improving livelihoods.

### 3.4. Scope of the evaluation

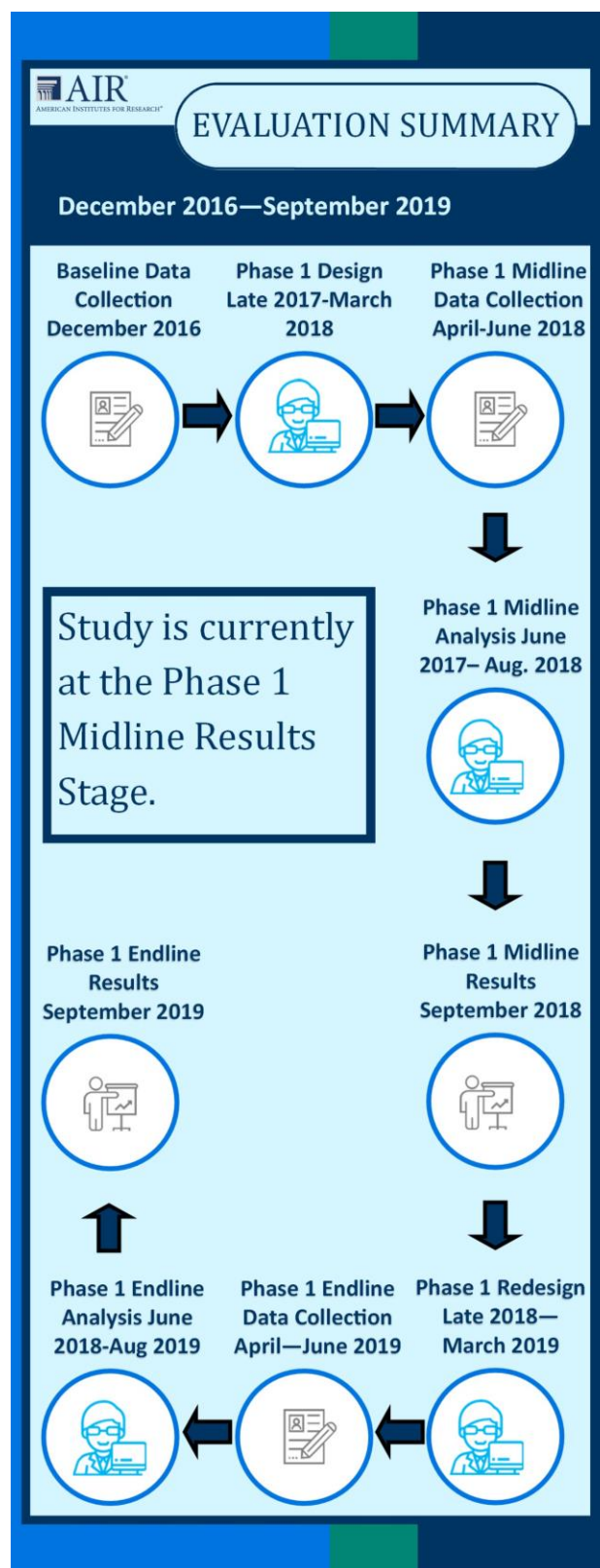
The goal of the evaluation is to generate evidence about programme effects and assess some aspects of programme implementation to inform programme design and scale-up. These goals will help funders and implementers to better understand where the programme achieves its goals and areas for improvement. Clearly defining what is included in the scope of this evaluation and what is excluded is important. The three main purposes of the evaluation are: (1) to help MPPSPF to design humanitarian response programmes, (2) to provide FID opportunities for operational adjustments, and (3) to allow UNICEF and World Bank to learn about the programme. Figure 3 summarizes all of the steps of the evaluation. The evaluation design allows for both rapid feedback of Phase 1 but also has a longitudinal component that will provide more rigorous estimates for Phase 2 of the project.

The evaluation aims to address all questions included in the TOR and inception report whenever possible. There are some small deviations from the original scope of the evaluation. For example, some of the questions could not be answered based on the survey. AIR agreed to attempt to use informal interviews with beneficiaries and stakeholders. However, these activities were not possible due to delays in the data collection schedule. Instead, whenever allowed, we use survey data and existing programme documents to address the three evaluation criteria targeted by this evaluation.

Based on discussions with UNICEF and other stakeholders, all parties agreed that the evaluation will cover the following three criteria:

- *Relevance:* The evaluation covers the relevance of Fiavota. Relevance measures the degree to which the programme is aligned with the larger goals of key stakeholders.
- *Impacts:* The evaluation estimates the impacts of the programme on beneficiaries. The evaluation addresses both the expected

Figure 3. Evaluation Schedule Summary



and unexpected effects of giving cash in a humanitarian context.

- *Effectiveness*: The evaluation measures the degree to which the goal of the programme (distributing cash to vulnerable populations) was successful.

The TOR for this evaluation made clear which evaluation criteria would be included and would not be included. UNICEF wanted to focus on the three above criteria. We agreed that the evaluation will not cover the following two criteria:

- *Sustainability*: The evaluation does not cover the sustainability of Fiavota, which measures whether the benefits are likely to continue after the programme ends. This evaluation covers the initial phases of the programme as it is introduced to the area and first implemented. The evidence from the evaluation will help inform programme design and scale-up. The programme is not in a position yet to generate evidence on sustainability and continuation of effects given the initial phase of programme implementation. Therefore, stakeholders did not include sustainability in the task order request for this evaluation (see Appendix F).
- *Efficiency*: The evaluation does not cover the efficiency of the intervention because the evaluation focuses only on Fiavota's effects during the initial phase of programme design and implementation. Studying the efficiency requires comparing outputs (the effects of the programme) to inputs (the financial and logistical resources put in). First, the scope of this evaluation and the data collection supporting it did not and was never supposed to cover the inputs to the programme. So, it was not possible to assess Fiavota's efficiency. Second, programmes incur high fixed costs and other expenses during the initial stages that go away or average out over time. However, this evaluation covers only the initial start-up and piloting of the programme, before recurring implementation cost data are available. Estimating efficiency would be more appropriate when the programme scales up and operates for a longer time period, after working out some of the initial start-up challenges. Therefore, stakeholders determined that efficiency would not be included in the scope of this evaluation, as it is not an appropriate time to do so.

This evaluation occurs at the midline point of the programme. The midline Phase 1 evaluation covers the first year of the programme, and we will repeat the analysis after the second year of the programme at endline. Midline data collection activities were carried out before the programme's expansion to new beneficiaries in June 2018. This round of the study looks back at the first phase of the programme and looks forward to future phases of the programme.

The endline research activities will occur 1 year after baseline research activities. Because of the seasonality of agriculture and expenditures, particularly important will be that endline data collection occurs at the same time of year (April to June) as the baseline. If endline data collection occurred at a different time than baseline data collection, we could misattribute regular seasonal changes to the programme.

Table 1 provides the key evaluation activities and summarises the timing of each one. For further details on the activities that support these products, see the Section 5, Evaluation Design. See also Figure 2 for the evaluation schedule summary.

**Table 1: Key Activities**

Product	Completed or projected dates
Baseline survey*	December 2016
Inception report	March 2018
Midline data collection	April to June 2018
Midline report	September 2018
Endline data collection	April to June 2019
Endline report	September 2019
Endline presentation	October 2019

*Notes.* All future dates are contingent on implementation and data collection. \*Already complete and not an AIR deliverable.

## 4. Evaluation Design

The Phase 1 evaluation uses cross-sectional, quasi-experimental methods to estimate the impact of the Fiavota programme on the first phase of beneficiaries. We use propensity score matching (PSM) techniques to create treatment and comparison groups that are similar in terms of the characteristics that the transfer would not affect. With this approach, we estimate how the transfer affected outcomes compared with the counterfactual where they did not receive the programme.

### 4.1. Evaluation design

To conduct a valid assessment of the impact of the Fiavota programme, we need to establish a clear counterfactual. A counterfactual is what would have happened to the beneficiaries if they had not received the programme. We compare the real outcomes to the counterfactual to see how the intervention changed outcomes. Constructing a counterfactual requires a rigorous methodology that enables us to address the question of what would have happened to programme participants in the absence of the intervention. A randomized controlled trial (RCT) creates the strongest counterfactual methodologically because the control group did not receive the intervention only by chance. However, an RCT is often logistically not feasible. In the absence of an experimental design, we can construct a counterfactual using quasi-experimental methods.

Finding a true counterfactual when the treatment group was purposely selected can be challenging. In this case, the programme targeted beneficiary households living in areas with higher rates of malnutrition. This selection means that beneficiary households were systematically worse off than other households in terms of nutrition when the programme began. Also, other unobserved characteristics may have existed that were different between beneficiaries and non-beneficiaries. These differences can introduce a bias to our evaluation because we cannot know if differences between the two groups existed before the programme or occurred due to the programme.

The evaluation of Fiavota Phase 1 uses a cross-sectional PSM design to mitigate the concerns about differences between the treatment and comparison groups. The World Bank recommends using PSM for the evaluation of social programmes in non-randomised studies (Baker, 2000). The PSM method restricts the sample to only those comparison households that are a good counterfactual for beneficiary households. The basic idea of PSM is to identify people who were equally likely to receive the programme so that they did or did not receive the transfer by chance. PSM relies on observable characteristics to pair similar beneficiaries and non-beneficiaries.

This evaluation's application of the PSM method relies on a single cross-section of child- and household-level data collected in April to June 2018, after the Emergency Response phase. The Phase 1 evaluation focuses on the effects of the transfer for a randomly selected subset of Fiavota beneficiaries.

To construct a counterfactual, we use households from two neighbouring districts that did not receive benefits. The nearby districts had a similar but slightly lower rate of malnutrition at the district level. We drew comparison households from the fokontany (villages) in the untreated district if the fokontany had a nutritional site. Households were only eligible if they lived in a treatment district and near a nutritional site.

#### **4.1.1. Technical explanation of PSM**

PSM is an estimation technique that restricts the sample to only the members of the treatment group and comparison group that are similar. PSM uses non-linear estimation techniques to generate a score to identify similar households for comparison in the treatment and non-treatment areas (Rosenbaum & Rubin, 1983). The method can improve regression techniques by (a) restricting the sample to only comparable households or (b) providing weights for regression analysis. Properly applied, matching methods can yield an unbiased estimate of the treatment impact whenever potential outcomes are not related to personal characteristics that determine programme participation (Dehejia & Wahba, 2002). As such, we carefully selected matching variables to include only those that would be unaffected by the transfer and nutritional support. For example, we match households based on factors such as household size, number of children, child's age, and parents' education. These characteristics each would affect nutrition and resilience, so that including them would allow us to compare only similar households.

We use cluster-robust, cross-sectional regression techniques to estimate the impact of the Fiavota programme. We cluster standard errors at the fokontany level to account for correlation of fokontany-level variation. This is important because households in the same fokontany may be more similar to each other than households in other fokontany. Clustering enables the model to account for the fact that systematically similar households provide less statistical power than independent households. We would ideally cluster at the district level, but there are too few districts or communes for this to be possible mathematically to use either one. We instead cluster standard errors at the fokontany level.

PSM matches are determined using a nearest neighbour strategy with a caliper of 0.01 and without replacement. This matching approach provides a higher-quality comparison group because it is relatively strict about defining what qualifies as a match. Matching the two groups closely is important because doing so enables more precise impact estimation. The downside of this approach is that it excludes a larger share of households from the final sample. However, the Phase 1 sample is large enough that it can detect small but meaningful differences even when restricting the sample. For a further discussion of the matching approach and sample restrictions, see Appendix E.

#### **4.1.2. Power analysis**

A properly designed evaluation can detect small but meaningful differences in effects for child and nutritional outcomes. We have a sample size of 2,976 beneficiary households and 2,381 comparison households across 199 treatment fokontany and 46 comparison fokontany. This sample enables us to detect an effect of 0.132 standardised mean difference in children's stunting, one of the primary nutritional indicators for this study. We can detect this effect with 80% likelihood and 95% confidence.

To arrive at these estimates, we make the following assumptions. We assume the intraclass correlation is 0.02. This value is drawn from a database of nutrition data from sub-Saharan Africa (Seidenfeld, Handa, de Hoop, & Morey, 2017). Further, we assume 25% of the sample are eliminated during the matching process. We assume that child-level covariates will explain 30% of the total variation and that village-level covariates will explain 15% of the total variation.



### **4.1.3. Use of extant data**

We will compare the results in this report to outcomes observed during the 2016 baseline study. This comparison enables us to see how living conditions changed during the Emergency Response phase of the programme. The comparisons will be purely descriptive to provide additional context about key outcomes. However, comparing midline to baseline data will be done in a limited basis. We limit the extent of the comparisons for three primary reasons.

1. The baseline data cover only the treatment group. So, incorporating the data into the impact estimates unfortunately is not possible. Simple before-and-after comparisons for only the treatment group cannot account for pre-existing trends in key outcomes. If households' living situations were changing independently of the transfers, we would either underestimate or overestimate the true impact.
2. Baseline data collection occurred in the weeks preceding and following the Christmas and New Year holidays. Both holidays would misrepresent beneficiaries' true nutritional status because people are much more likely to improve diet quality for those holidays. So, AIR recommended the midline data collection dates be moved away from holidays. Because food consumption and agricultural production vary seasonally, care must be taken not to misinterpret normal seasonal changes as programme impacts.
3. The instrument changed between baseline and endline. Many of the key outcomes covered in this report were not included in the baseline instruments. We can only compare outcomes at baseline and midline if they are defined identically. The number of outcomes for which this is true is limited.

We will include descriptions of outcomes at baseline, but it is important to note that it will not cover all outcomes and cannot determine the programme's impacts.

## **4.2. Overview of data collection**

### **4.2.1. Sampling**

The respondents for the Phase 1 evaluation come from a representative sample of households. We used administrative rosters to complete a full panel survey with Phase 1 beneficiaries from the pre-intervention study. The treatment group comes from a subset of respondents to the pre-intervention study. They live in 199 different villages with an average of 15 households per village. For the comparison group, we selected a total of 46 villages that have government nutrition centres and are in communes with similarly high levels of malnutrition and sampled 51 households per village. We used the administrative rosters kept by nutrition centres to randomly select households within that area. We randomly selected children between 0 and 5 years old from the lists. This study is powered to analyse programme impacts separately for households with low, moderate, and high levels of malnutrition.

The evaluation focuses entirely on households with children. Each household should have at least one child between 1 and 6 years old, having previously qualified with a child between 0 and 5 years old. If beneficiaries cannot participate (for example, they are unwilling to complete the survey, they move to a new area, or they are ineligible to participate), we would randomly draw another beneficiary from a reserve list.

Data collection for the Phase 1 evaluation occurred at the same time as the Phase 2 evaluation to maximise synergies between the two evaluations (e.g., training, travel). However, the Phase 1 sample is composed of different households in the same villages.

### 4.2.2. Instruments

The evaluation relies on a single household survey instrument to collect household-level and child-level outcome data and anthropometric measurements to capture child growth. There was also a community-level survey that provides supplementary information on the areas.

The theory of change and research questions motivated the domains covered in the survey. These domains are displayed in Table 2. Household-level measures include the following: food security, agricultural production, consumption, resilience and coping strategies, operational performance, housing conditions, some household demographics, and subjective well-being. Individual-level measures include: children's physical growth, health status, educational enrolment and attendance, child feeding practices, child labour, and child welfare/protection. Indicators in these domains relate to control variables, moderating variables, or outcome variables. Control variables are those that would not likely change as a result of the programme but might affect the outcome variable, such as household size, marital status, and parents' education levels. Moderating variables might change the programme's ability to affect outcomes, such as distance to the nearest nutrition clinic and access to other programs and services. Outcome variables are indicators that the programme strives to affect as either intermediate or final goals, such as child malnutrition, investment in productive assets, child enrolment and attendance in school, child and adult health, and food security.

**Table 2: Household-Level Survey Contents**

Household indicators	
Household level	
<i>Housing</i>	<i>Programme access</i>
Materials	Enrolment in other aid programmes
Location/migration	Monetary assistance from friends/family
Amenities/utilities	In-kind assistance from friends/family
<i>Consumption</i>	<i>Economic</i>
Non-food item consumption	Small asset accumulation
Food consumption	Livestock ownership
Services consumption	Entrepreneurial activity
<i>Resilience</i>	<i>Propensity to save</i>
Shocks suffered	Food security
RIMA (FAO)	Food consumed
<i>Agriculture</i>	<i>HFIAS (FAO)</i>
Land and crop cultivation	Operational performance
Crop sales	Understanding of programme
<i>Gender-Based Violence</i>	<i>Targeting</i>
Intrahousehold conflict	Payment systems

Household indicators	
Decision making	Challenges to accessing payments
	Perceptions of beneficiary duties
	Individual transfer recipient/user
Household member level	
<i>Demography</i>	<i>Health</i>
Family structure, composition	Morbidity (general and specific)
Births	Days lost to illness
Disability	Curative and preventative care
	Self-reported general health status
<i>Education</i>	<i>Labour</i>
Level of attainment	Labour activities (for pay and not for pay)
Literacy	Labour income
Child level	
<i>Education</i>	<i>Child welfare</i>
Absenteeism (attendance)	Pre- and postnatal care
Enrolment	Feeding practices (time, type of foods)
On-time entry	Breastfeeding
Progression/repetition	Sickness (diarrhoea, malaria, other)
School expenses	<i>Nutrition and health</i>
<i>Child protection</i>	Height for age (stunting)
Access to services	Weight for height (wasting); weight for age (underweight)
Meeting basic material needs	Vaccinations received

### 4.2.3. Protection of evaluation participants

AIR considers respecting and protecting the well-being of study participants extremely important and, accordingly, takes steps to uphold those standards. AIR's Institutional Review Board (IRB) reviews all research activities to ensure that they adhere to best practices. During the analysis stage, AIR uses technology and procedures to ensure the security of the data and privacy of the respondents.

#### 4.2.3.1. Ethics review

Project directors must register all new projects with AIR's IRB, which assesses the compliance of each project with the standards of conduct and protection of the rights of human research subjects (see Appendix G for IRB Approval). AIR requires ethics training for all its staff and requires all researchers, subcontractors, and consultants to adhere strictly to the requirements of AIR's IRB.

#### 4.2.3.2. Data collector practices

CAETIC was responsible for on-the-ground data collection and used tactics to guarantee data security. All individuals involved in data collection underwent research ethics training to ensure that they were aware of the requirements for protection of human subjects in research.

Enumerators were directed to ensure interviews occurred in private to avoid disclosure of sensitive information. They also were directed to instruct respondents that they could opt out of the survey at any time without penalty. All participants will be asked for their informed consent/assent to engage in activities that are specific to the research component(s) of the project. Participants were asked to give their consent/assent in a dialect of Malagasy that they understand, written or spoken at a level that is appropriate for their age and educational background.

#### **4.2.3.3. *Data storage and security***

The research team at AIR followed the strictest guidelines for data security after receiving data from CAETIC. The AIR Information Security Policy states that all personally identifiable information that is accessed, stored, or transmitted on AIR-managed networks and computers is protected in accordance with a written, project-level information security plan, upon which all personnel on the project are briefed and with which they are required to comply. The project information security plan includes a statement of applicable laws and regulations, the definition of the boundaries and security category of the information that requires protection, and a description of the appropriate security measures and procedures that are commensurate with the sensitivity of the data in both the electronic and hard-copy domains. Laptops used by staff who collect and manage data are protected with whole-drive disk encryption that prevents data access should the laptop be lost or stolen. Sensitive identifiers are not permitted to be stored on memory devices or transmitted over unsecured networks.

### **4.3. Summary of fieldwork**

CAETIC Développement collected all data and directly oversaw all fieldwork. CAETIC recruited enumerators who had experience administering surveys and were familiar with the cultural and linguistic conditions in the Fiavota programme area. CAETIC conducted a training for enumerators during mid-May. AIR did not participate in the training, but domestic evaluator Faly Rakotomanana observed along with UNICEF staff. Five enumerator teams departed Antananarivo and then began data collection on April 27, 2018. Upon arriving upon a new nutritional site, the enumerator team's supervisor would make contact with the local leaders. The supervisor conducted the community survey with the local leader and asked for assistance in finding the community members on sample rosters. After the supervisor identified a respondent household, an enumerator conducted the survey orally and recorded responses on a laptop.

The data collection team spent their last day in the field on June 10, 2018. They completed surveys with a total of 6,530 households, covering 42,078 individuals. Data collection covered both the present evaluation and a separate evaluation of the programme's Phase 2. Of all the surveys, 5,357 households from Phase 1 participated covering 35,815 individuals. The data collection team reported no significant problems during the survey but did mention that the survey was long enough to tire respondents.

Table 3 shows the number of households and individuals who participated in the survey.

**Table 3: Sample Composition**

	# of households	# of individuals
Phase 1 Treatment	2,976	21,098
Phase 1 Comparison	2,381	14,717
Total	5,357	35,815

#### 4.4. Evaluation limitations

Despite our efforts to conduct the most rigorous evaluation possible, there are several limitations that cannot be avoided. We must consider these limitations because they affect the interpretation of the findings. We identify six primary limitations to the study:

1. *Selection bias due to missing measures:* Systematic differences (selection bias) may exist between the treatment and comparison households that affect the outcomes of interest yet are independent of the programme. We cannot control for these potential systematic differences because they are not measured in the survey. Some of these differences could be measurable yet missing from the survey, such as household wealth. Other differences might be missing because they cannot be measured easily. For example, quantitatively measuring a mother's motivation to feed her child nutritiously is not possible. If treatment households are systematically different from comparison households along these unknown characteristics, that may lead us to overestimate or underestimate the impacts of the transfer. An RCT accounts for these observed and unobserved characteristics; however, we cannot control for them in this quasi-experimental study if we do not have measures for them.
2. *Pre-existing differences:* The treatment districts received transfers because they had higher rates of malnutrition than nearby areas. So, the comparison group started with better outcomes than the treatment group. We attempt to mitigate these differences by using the PSM approach. However, we cannot rule out that pre-existing differences remaining in our sample.
3. *Limited characteristics to use for matching because missing baseline measures for the comparison group:* We can use only outcomes at midline to match treatment and comparison households through the PSM process because we do not have data on comparison households at baseline. Therefore, we are limited to matching on outcomes that should not be affected by the transfer (for example, parents' education or number of household members). Ideally, we would match on a large number of observations at baseline before either group was affected by the treatment, enabling us to create even more similar treatment and comparison groups. Unfortunately, baseline measures are not available for the comparison group.

4. *Limited sample to use for creating matched comparison group:* The ideal design for PSM uses a larger comparison group than the treatment to ensure best matches. A large comparison sample to pull from makes our ability to retain all of the treatment households more likely because we find an ideal match for each one. We originally suggested two comparison households for every treatment household. Instead, there was a roughly one-to-one ratio. By not oversampling, we were forced to eliminate some treatment households during the PSM analysis.
5. *Survey fatigue:* Survey fatigue becomes a problem when respondents answer questions less accurately at the end of the survey because they lack the energy to think as carefully about their responses. Both enumerators and respondents confirmed to AIR during data collection that they were tired by the survey's length. We cannot be sure if and how the length of the survey may have affected responses.
6. *Limited survey instrument:* A number of domains were not covered by the survey instrument, such as agricultural inputs and farming practices; types of labour provided (e.g., paid or unpaid); and time spent working, individual-level time use, physical ability to conduct daily activities, and exposure to shocks. Without collecting data on an outcome, we cannot provide impact estimates. Also, we cannot assess the relevance of the programme to the key stakeholder goal of reducing deaths because no data exist on household members who died in the previous year.
7. *Lack of longitudinal data:* We cannot account for other events that occurred during the period of programme implementation that might have affected outcomes of interest but are unrelated to the programme because we do not have longitudinal data on the comparison group. Baseline data was not collected for the comparison group because the treatment group faced greater malnutrition and would receive the transfer. Without baseline data for the comparison group, we cannot determine if their growth over time was similar, greater, or worse than the treatment group.

## 5. Household-Level Impact

The study investigates the effects of the programme at both the household and individual levels because the cash is delivered to the head of the household who can spend the money however she or he desires, yet the programme targets households with children, thus the importance of investigating the effects on them. This section presents the household-level impact estimates of the programme for Phase 1 beneficiaries, focusing on food security, consumption, agricultural production, resilience, economic activity, housing, subjective well-being, and interhousehold dynamics. We present the effects of the programme on individuals, particularly focusing on children, in section 7.

All impact estimate tables in the household and individual section should be read similarly. The first column lists the indicator being assessed for an impact. The estimated impact is listed in the second column, with stars identifying the level of statistical significance for the impact estimate. If there are no stars for the indicator that means we cannot say that the programme generated an impact for that indicator even though there is a number in the “Impact Estimate” column. The third column states the average for the treatment group is followed by the sample size of the treatment group in the fourth column. The fifth and sixth columns are similar but state the mean and sample size for the comparison group. Sample sizes vary by indicator because the PSM technique produces different matches for each indicator, with some indicators generating more matches than others.

We begin this section with a brief description of beneficiaries’ characteristics that would not be affected by the programme such as age distribution, gender distribution, marital status, and adult education completed. We then present the household-level impacts by domain.

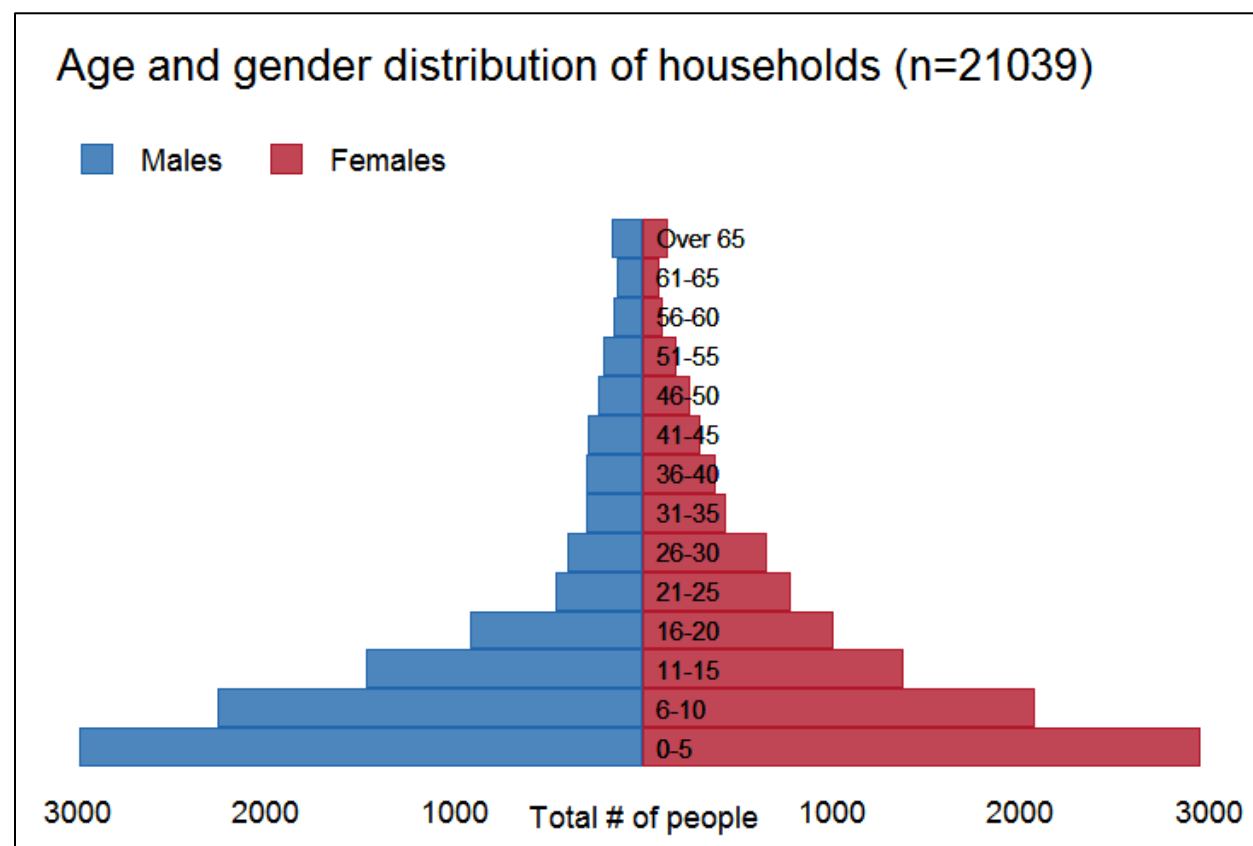
### 5.1. Description of Phase 1 beneficiaries

Understanding the demographic composition of the beneficiary households to get a sense of who received the programme and how their characteristics might affect potential impacts (see Table 4) is useful. Households average seven people including two children younger than 5 years old and roughly two children between 6 and 12 years old, which is higher than the national average in Madagascar of five household members. Thus, households have several children in the age range targeted for the programme. Figure 4 shows the distribution of Phase 1 beneficiaries by age and gender. The sample is very balanced by gender. A majority of the sample is younger than 20 years old. Figure 5 zooms in on children younger than 18 years old by age and gender, showing that age 5 represents the largest percentage of children in the sample. Two thirds of the adults are married. The percentage married is much lower for children between 15 and 17 years old, with 2% of males in the age range married and 6% of females in the age range married. Only half of the beneficiaries older than 18 years of age ever enrolled in school, contributing to the low percentage of adults who are literate (38%), can write (37%), or can do basic math calculations (59%). Figure 6 shows the distribution of household size, and Figure 7 shows the distribution of household members completing primary school by age. Adults 18 to 29 years old represent the highest percentage of the sample to complete primary school at roughly 30% and then it drops off quickly for older ages. These characteristics could limit the beneficiaries’ ability to use the transfer to start a business if they cannot do basic math, read, or write.

**Table 4: Demographic Characteristics of Phase 1 Beneficiary Households**

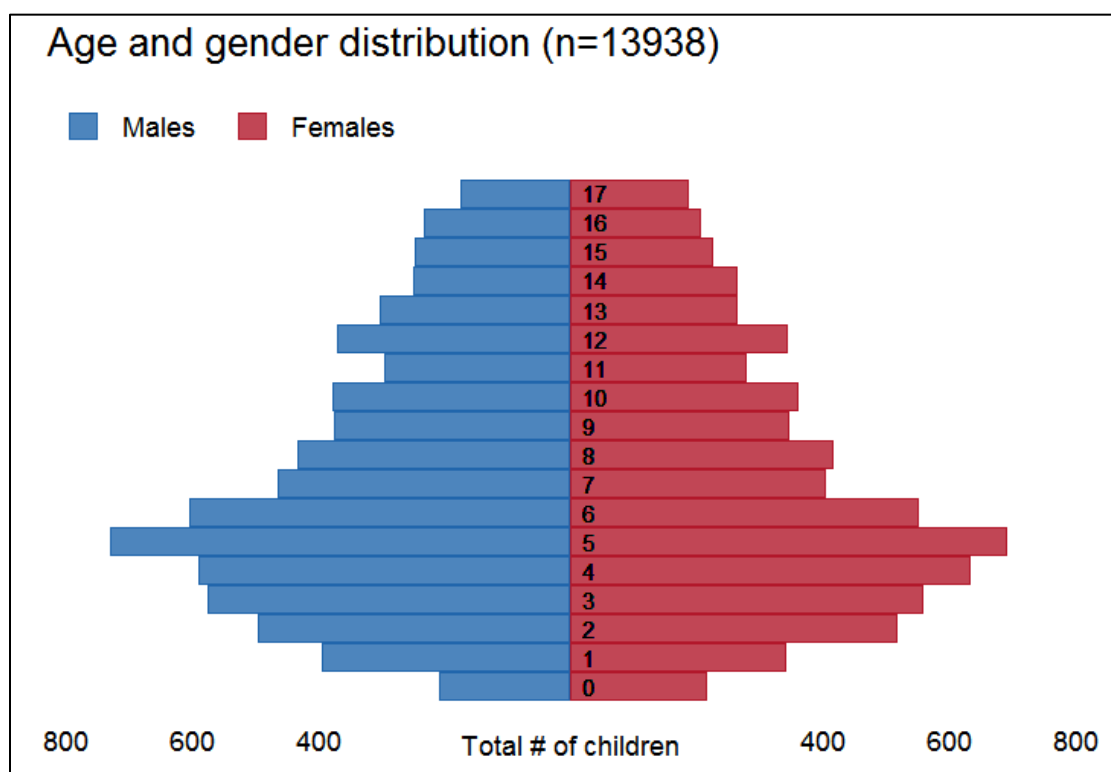
Variables	Mean	N
# of members in household	7.09	2,980
# of children 0–5 years old	2.00	2,976
# of children 6–12 years old	1.89	2,976
Female	0.51	21,045
Married (18+ years old)	0.66	6,360
Married: Male 15–17 years old	0.02	564
Married: Female 15–17 years	0.06	488
Ever enrolled in school (18+ years old)	0.53	6,348
Can read well (18+ years old)	0.38	5,996
Can write well (18+ years old)	0.37	5,996
Can do calculations (18+ years old)	0.59	5,996

**Figure 4: Population of Households by Age and Gender**

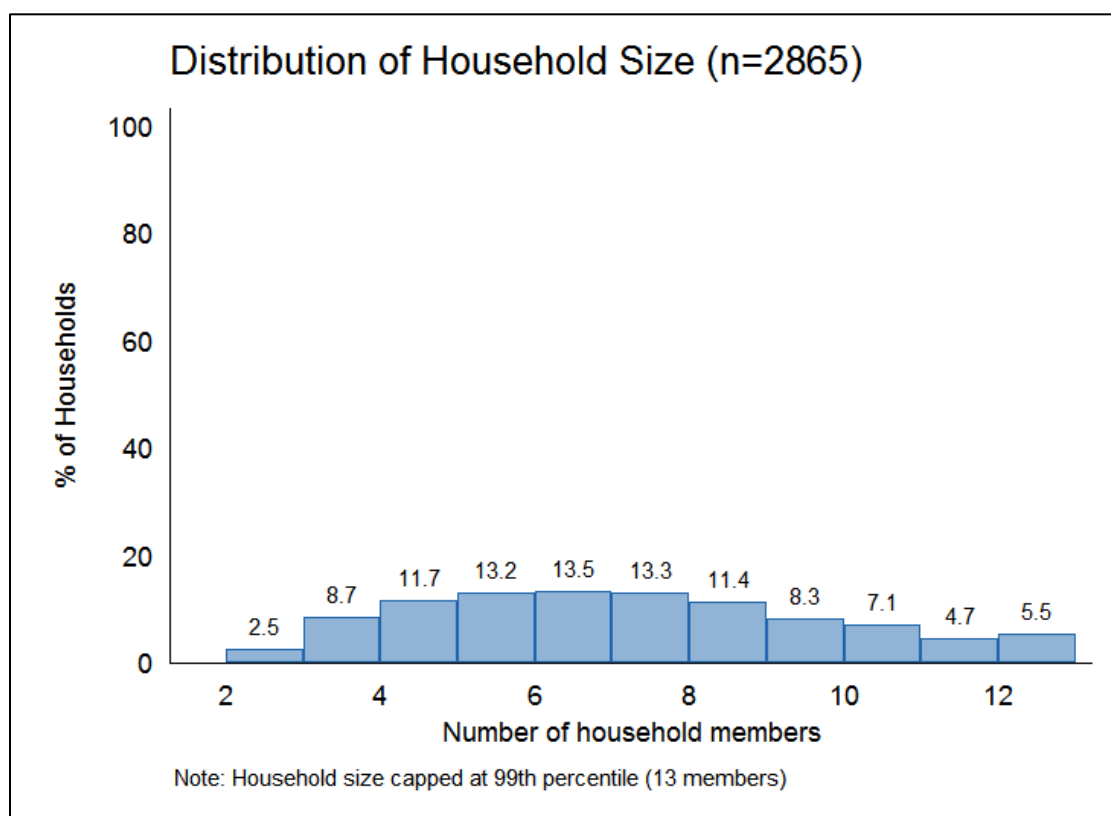




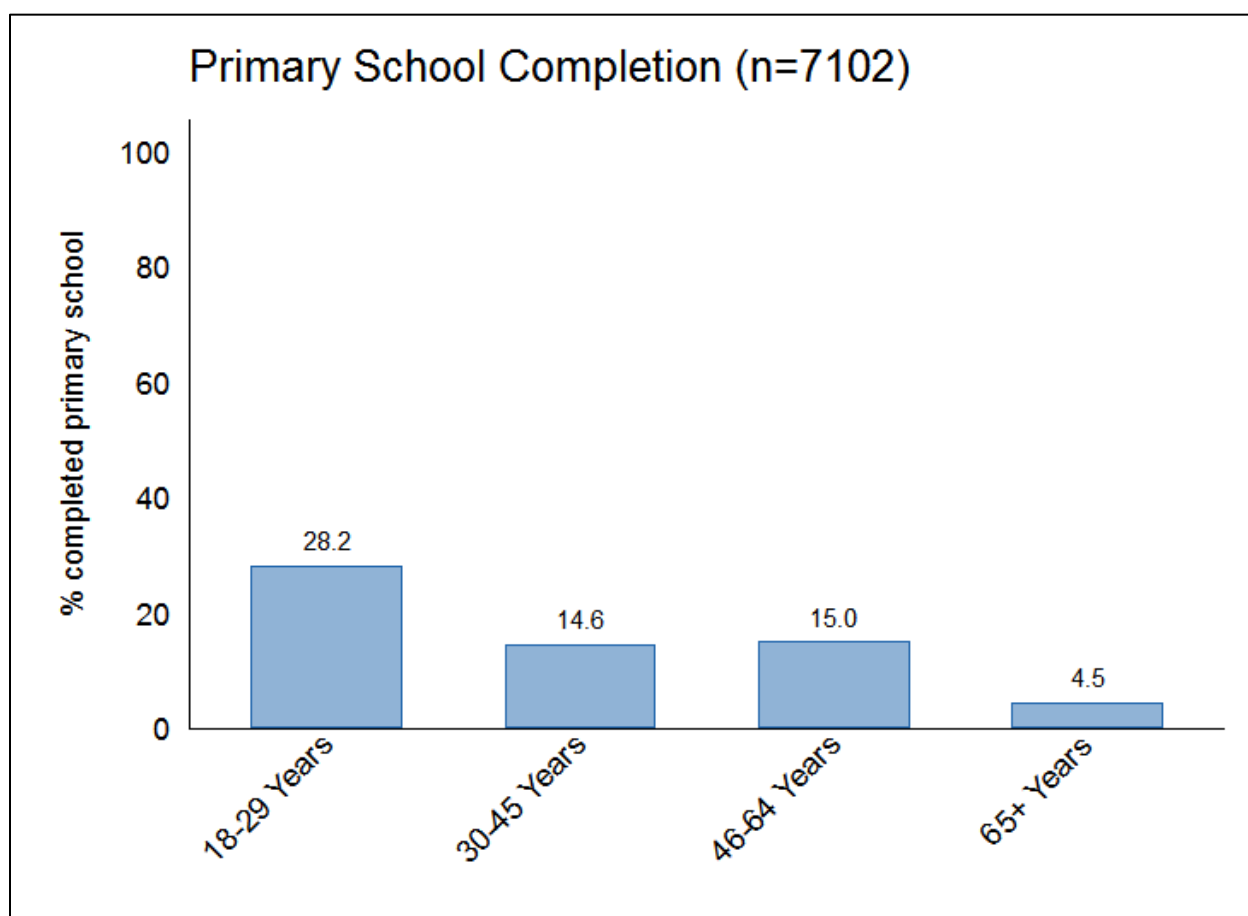
**Figure 5: Number of Children in Households by Age and Gender**



**Figure 6: Percentage Distribution of Household Size**



**Figure 7: Percentage of Adults Completed Primary School by Age Range**



## **5.2. Food security**

Stakeholders designed the first phase of the programme as an emergency response to the severe drought from El Niño effect that created great food insecurity. It is expected that households facing severe food insecurity would first use the cash to purchase food and improve their situation, thus we present this outcome first. There is strong evidence that cash transfers can improve food security. A review of the impacts of cash transfers presents positive findings related to food security from 8 programmes implemented in sub-Saharan Africa. Cash transfers increased food security in each programme, with the majority of the transfer amount being spent on food (Case, 2004; Handa, Seidenfeld, Tembo, Prencipe, & Peterman, 2013; Miller et al., 2008; OPM, 2013; Berhane et al., 2015; OPM, 2014; OPM, 2015; Soares & Teixeira, 2010). In addition, Hedlund, Maxwell, and Nicholson (2012) found that UNICEF’s UCT and voucher response in southern and central Somalia had a measurable effect on reducing hunger and improving food security. According to the theory of change, cash transfers should increase the amount spent on food and knowledge related to nutritional needs which will in turn lead to improvements in household diets.

We find consistent impacts on food security by the programme for Phase 1 beneficiaries. Impacts range between 2 and 11 percentage point reductions for food insecurity measures such as skipped a meal due to lack of money (3 percentage point reduction), no food in household due to lack of

money (9 percentage point reduction), going to bed hungry (11 percentage points reduction). These were relatively common coping strategies and 53 percent of treatment households reported using all three strategies. The consistency across impacts on food insecurity indicators adds confidence to the claim that the programme helps reduce food insecurity as expected in the theory of change. However, noting that the levels of food insecurity among the beneficiary group remain quite high, with many indicators of food insecurity averaging above 70% of beneficiaries, is important. These food coping strategies were widespread among the treatment group, with approximately 98 percent reporting using some coping strategy. Much more room exists for the programme to improve on these indicators and further reduce food insecurity. Table 5 shows the impacts for food insecurity outcomes.

In addition to reducing food insecurity, the beneficiary households had better food consumption and diet diversity. These food category impacts are quite large compared with the food insecurity impacts, with the programme increasing the number households that ate meat or dairy by 23 and 22 percentage points, respectively. Roughly half of the beneficiary households ate meat compared with only 26% of the non-beneficiary group. About half of the treatment households provided meat to their children. So, few households ate meat but withheld it from children.

**Table 5: Phase 1 PSM Regression Results—Food Security**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Household food insecurity access scale score (range = 0–27)	-1.31***	18.33	1872	19.54	1872
Worried about having enough food due to lack of money	0.00	0.97	1870	0.98	1870
Didn't eat healthy food due to lack of money	0.00	0.98	1863	0.97	1863
Ate less food variety due to lack of money	-0.02***	0.97	1870	0.99	1870
Skipped meals due to lack of money	-0.03*	0.89	1856	0.92	1856
Ate less due to lack of money	-0.04***	0.94	1860	0.97	1860
No food in household due to lack of money	-0.09***	0.74	1860	0.82	1860
Hungry but didn't eat due to lack of money	-0.09***	0.78	1848	0.86	1848
Spent night without eating due to lack of money	-0.11***	0.60	1859	0.71	1859
Spent whole day without eating due to lack of money	-0.06**	0.55	1870	0.61	1870
Consumed meat	0.23***	0.49	1870	0.26	1870
Consumed dairy	0.22***	0.36	1870	0.14	1870
Acquired food easily in the last 7 days	0.18***	0.23	1870	0.06	1870
Number of different food categories consumed	0.48***	4.00	1870	3.57	1870

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

### 5.3. Consumption

Evidence from cash transfer evaluations globally demonstrates that transfers alleviate the burden on families to meet their basic needs (Baird et al., 2014; Bhalla et al., 2018; Fiszbein & Schady, 2009; Saavedra & Garcia, 2012). Households at low levels of consumption, are likely to spend all

of any additional income rather than save it. Thus, we expect the immediate impact of the programme will be to raise spending levels, particularly basic spending needs for food and basic necessities, which will influence health, nutrition, and well-being. According to the theory of change, we expect that the cash transfer should have a direct effect on household consumption that will lead to improved material well-being and reduce poverty. We break down consumption into food and non-food-related consumption. Food consumption is measured during the last week, while non-food consumption is measured during the last 30 days because these items are not consumed as frequently as food.

We find a large impact on per capita food consumption consistent with the impacts reported on reductions in food insecurity. We estimate a 927 Ariary impact on total value of food consumed, with treatment households consuming 2,651 Ariary of food per capita during the last 7 days. Programme recipients consistently consume a greater value of food across most food items in the survey including grains (353 Ariary per capita); tubers (95 Ariary per capita); pulses (83 Ariary per capita); fruit and vegetables (roughly 60 Ariary per capita for each); and meat, fish, and poultry (99 Ariary per capita). Thus the programme appears to increase diet diversity and consumption of important food staples such as vegetables; fruits; fats; and proteins (pulses, meat, poultry, and fish). See Figure 8 that shows increases in food consumption. When testing for the differential impact of the size of a households transfer, we find small positive impacts for flour, meat, and fruit. The consumption domain is the only one for which there are consistent impacts but even these impacts are less than 10 Ariary increase per 1,000 Ariary increase in the transfer.

Figure 8: Increases in Food Consumption



We also find impacts on consumption of common non-food items also consistent with other cash transfer studies. The programme increased consumption of soap and personal care products (146 Ariary per capita and 95 Ariary per capita, respectively). This result could lead to improved health outcomes in the medium- to-long term because hand washing and bathing can greatly reduce the spread of viruses and bacteria. The programme also increases consumption of matches, lighters, candles (16 Ariary per capita), and paraffin fuel (128 Ariary per capita). We find a decrease in consumption of charcoal and firewood of 380 Ariary per capita, suggesting that beneficiary households are switching from charcoal and firewood for cooking and lighting to paraffin stoves and candles. If so, this result also would suggest that there are environmental and health benefits to the programme because reduction in firewood and charcoal use is good for the environment (destroying fewer trees) and people's lungs (breathing less smoke, a cause of health problems in rural Africa). The programme also increased beneficiaries' phone use at 50 Ariary per capita per month, a result we often find in cash transfer programmes across southern Africa where staying connected to family can serve as a coping strategy for shocks to receive remittances, but also as part of the cultural norm. The programme produces a 90 Ariary per capita impact on consumption of tobacco and cigarettes, representing a 30% increase per capita, though signifies only a very small percentage of the overall transfer. Table 6 lists the results for food and non-food consumption.

**Table 6: Phase 1 PSM Regression Results—Consumption**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Per Capita Total Food Value (last 7 days)	927.56***	2651.70	1872	1909.39	1872
Per Capita Grains (last 7 days)	353.63***	1084.63	1870	815.78	1870
Per Capita Flour (last 7 days)	-9.52	25.63	1871	37.74	1871
Per Capita Tubers (last 7 days)	95.90**	551.25	1870	476.82	1870
Per Capita Dry Pulses (last 7 days)	83.08***	179.25	1870	112.16	1870
Per Capita Fruit (last 7 days)	56.36**	96.20	1870	46.34	1870
Per Capita Vegetables (last 7 days)	67.62***	142.49	1872	85.96	1872
Per Capita Meat, Fish, Poultry (last 7 days)	98.96***	180.26	1870	95.92	1870
Per Capita Dairy Products (last 7 days)	13.94***	33.07	1870	20.80	1870
Per Capita Finished Products (last 7 days)	16.72	70.59	1872	62.47	1872
Per Capita Other Food Products (last 7 days)	89.44***	184.47	1870	110.34	1870
Per Capita Non-food Products (last 30 days)	162.52	3851.76	1872	4001.80	1872
Per Capita Tobacco, Cigarettes (last 30 days)	89.80***	293.47	1872	220.43	1872
Per Capita Soap (last 30 days)	146.30***	424.64	1870	316.88	1870
Per Capita Paraffin (last 30 days)	127.65***	370.32	1870	272.01	1870
Per Capita Electricity (last 30 days)	-19.16	13.28	1872	38.33	1872
Per Capita Charcoal and Firewood (last 30 days)	-379.47**	2365.13	1871	2924.36	1871
Per Capita Matches, Lighter, Candles (last 30 days)	15.87***	75.97	1872	67.47	1872
Per Capita Phone Credit (last 30 days)	50.02***	114.83	1872	78.77	1872
Per Capita Rent (last 30 days)	-9.80	20.92	1870	34.12	1870
Per Capita Rent Among Renters (last 30 days)	-567.17	4352.38	10	3864.29	10

Per Capita Services and Personal Care Products (last 30 days)	95.13***	144.17	1872	59.25	1872
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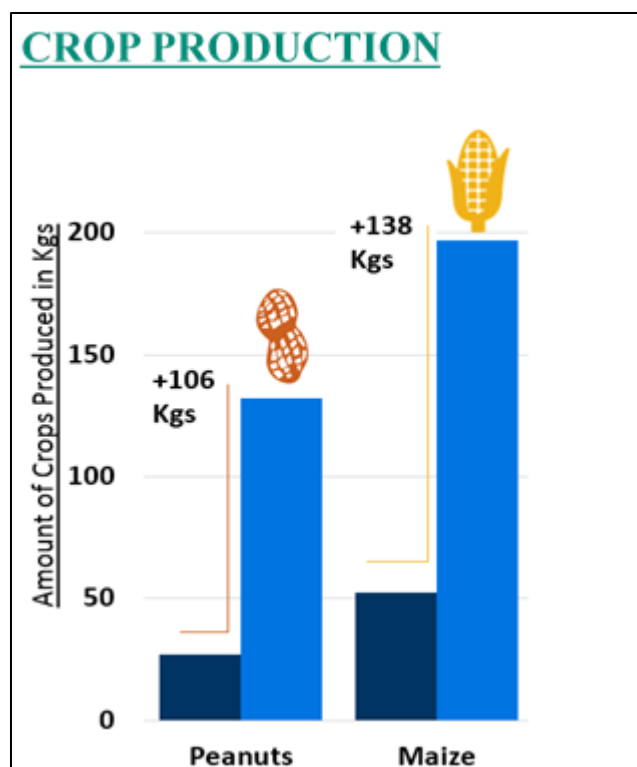
Note: All indicators measured in Ariary during the last 30 days unless otherwise stated. Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 5.4. Agricultural production and livestock

According to the theory of change, cash transfers could increase investment in livestock and productive assets thereby leading to increased asset ownership. This result is most likely to occur if money is available after first increasing consumption of food and healthcare. There is strong evidence that cash transfers increase investment in agricultural assets and production. A recent review of cash transfer programmes in sub-Saharan Africa found that they increased agricultural and livestock production through investment in inputs in Zambia, Malawi, Kenya, and Lesotho (Fisher et al., 2017). An evaluation of Mexico's PROGRESA/Oportunidades programme found that beneficiaries invested 12% of transfers in microenterprise and agricultural activities (Gertler et al., 2004). Similarly, an assessment in Paraguay found that cash transfer beneficiaries invested 45% to 50% more in agricultural production than the control group (Veras et al., 2010).

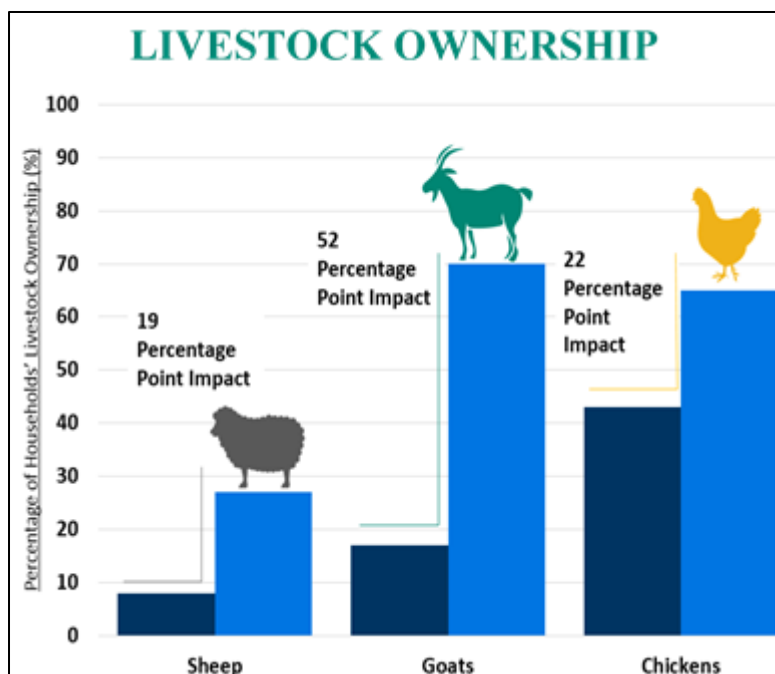
We first present impacts to crop production and follow it by impacts to livestock ownership. It is important to investigate both the extensive and intensive margin for each item, that is the programme's effect on the number of households producing/owning an item (extensive margin) and the programme's effect on the amount produced/owned by a household (intensive margin). The programme possibly may affect only one or both of these margins for an item. We present both here.

We do not find an impact on the total value of crops produced, but do find impacts on some individual items. The programme generates a large impact on the amount of lentils and peanuts grown (106 kg for each), representing a roughly 500% increase over the comparison group. These results are consistent with the consumption and food security findings about eating more food with proteins and fat. Interestingly, we find a decrease in the amount of vegetables grown (31 kg), indicating that households might be planting lentils and peanuts instead of vegetables. Lentils and peanuts are complete sources of protein and promoted by the programme. We also find an increase in the quantity of maize grown by 138 kg, representing a 300% increase over the comparison group. We did not find an impact to the intensive margin for cassava or yams; however, we do find an impact to the extensive margin for cassava and yams with a 10 percentage point increase and 4





percentage point increase, respectively. The programme generated an effect where 30% more households produce cassava than non-beneficiaries. We do not find any impacts on rice production, which is not surprising given that so few households in the treatment or comparison group produce rice (2%), a crop that requires plentiful water and would not work well in this dry region experiencing severe drought. We also adjust for the area cultivated for each crop. Two of the four crops (maize and vegetables) previously had significant increases in kilograms grown and now have insignificant increases in kilograms/m<sup>2</sup> grown. This suggests that the increase in production may be driven more by the area dedicated to the crop rather than more intensive cultivation. Table 7 shows the impacts to crop production.



**Table 7: Phase 1 PSM Regression Results—Crop Production**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Grow Rice Paddy	-0.01	0.02	1872	0.03	1872
Quantity Grown Rice Paddy (in kg)	25.47	44.69	72	18.77	72
Quantity Paddy (kg/m <sup>2</sup> )	-0.23	0.03	72	0.25	72
Grow Cassava	0.10**	0.40	1872	0.29	1872
Quantity Grown Cassava (in kg)	-12.65	25.36	850	37.45	850
Quantity Cassava (kg/ m <sup>2</sup> )	-0.01	0.03	851	0.04	851
Grow Maize	0.03	0.28	1870	0.25	1870
Quantity Grown Maize (in kg)	137.65***	196.99	707	52.53	707
Quantity Maize (kg/ m <sup>2</sup> )	1.11	1.48	707	0.19	707
Grow Yam	0.04*	0.13	1871	0.09	1871
Quantity Grown Yam (in kg)	2.17	11.15	272	9.28	272
Quantity Yam (kg/ m <sup>2</sup> )	-0.03	0.01	272	0.04	272
Grow Lentils	0.01	0.15	1870	0.13	1870
Quantity Grown Lentils (in kg)	106.40***	129.60	379	23.18	379
Quantity Lentils (kg/ m <sup>2</sup> )	0.99***	1.03	379	0.05	379
Grow Peanuts	0.00	0.11	1871	0.11	1871

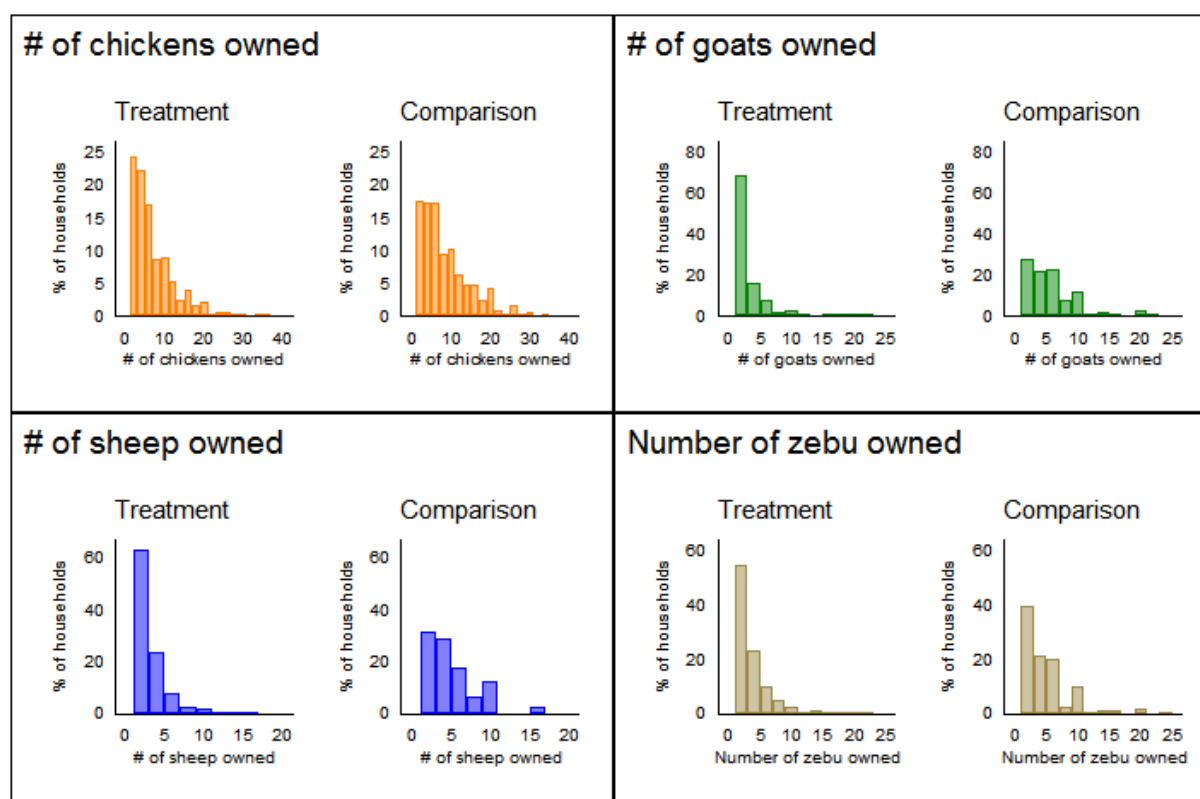
Quantity Grown Peanuts (in kg)	105.79***	131.89	252	27.39	252
Quantity Peanuts (kg/ m <sup>2</sup> )	0.52**	0.57	252	0.08	252
Grow Vegetables	0.01	0.08	1872	0.07	1872
Quantity Grown Vegetable (in kg)	-30.73**	13.97	124	44.05	124
Quantity Vegetables (kg/ m <sup>2</sup> )	-0.08	0.18	124	0.27	124

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.  
All variables cover the prior 12 months.

Results suggest the programme produced impacts on livestock ownership in addition to crop production. Once again, we look at both the extensive and intensive margin for ownership. The programme increases the number of households that own sheep (19 percentage points), goats (52 percentage points), and chickens (22 percentage points). These impacts are quite large given that between 50% (chickens) and 400% (goats) more beneficiary households own at least one of these types of livestock than comparison households. This result is not terribly surprising though because the programme started with an initial lump sum transfer that encouraged beneficiaries to make a larger investment purchase, especially in livestock. Households also use livestock for their own consumption. Between 15 and 20 percent of households consume their own zebu and just over three quarters consume their own chicken. We also investigate the intensive margin for livestock—that is, the number of livestock per household—and find similar impacts for sheep and goats. Figure 9 shows the distribution for the intensive margin—that is, number of livestock owned by type between the treatment and comparison groups. It shows that the greatest difference occurs especially at the lower end of the distribution where there are many more treatment households with one to five livestock, demonstrating how the programme enables many households to acquire their first few livestock who otherwise would not have any. Thus, a much greater percentage of households in the treatment group own a few livestock versus the comparison group. Table 8 shows the impact estimates for livestock.



**Figure 9: Distribution of Livestock Ownership by Treatment Status**



**Table 8: Phase 1 PSM Regression Results—Livestock**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Own male zebu	0.02	0.16	1870	0.14	1870
Number of male zebras owned	0.03	0.42	1870	0.38	1870
Own female zebu	0.00	0.13	1870	0.13	1870
Number of female zebras owned	-0.13	0.45	1870	0.32	1870
Own sheep	0.19***	0.27	1871	0.08	1871
Number of sheep owned	0.31***	0.72	1870	0.39	1870
Own goats	0.52***	0.70	1872	0.17	1872
Number of goats owned	3.15 ***	1.84	1870	1.14	1870
Own chickens	0.22***	0.65	1870	0.43	1870
Number of chickens owned	0.51	3.31	1870	2.81	1870

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 5.5. Resilience


Resilience has become a key focus of the international development community in recent years because of the increasing disruption in food supplies and agricultural productivity caused by climate change, as well as the increasing incidence of civil unrest, war, and economic crises. Consequently, this section of the report presents some preliminary findings on the impact of Fiavota Phase 1 on household resiliency.

What is resiliency? The Resilience Alliance defines the concept as “The capacity of a system to absorb disturbance and reorganize while undergoing change” DFID defines it as “...the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stresses—such as earthquakes, drought or violent conflict—without compromising their long-term prospects,” while the FAO’s Resilience Measurement Technical Working Group defines it as “...the capacity that ensures adverse stressors and shocks do not have long-lasting adverse development consequences” (Resilience Alliance, 2002). The common thread through these and other definitions is the notion that resilience reflects an ability to successfully manage or withstand a shock or stress. Efforts to measure resilience are still very much in their infancy, but Alinovi and colleagues’ (2010) Resilience Index Measurement and Analysis Model (RIMA) is perhaps the most sophisticated measure currently available (Alinovi et al. 2010). The dimensions of this index include income and food access, agricultural and non-agricultural assets, access to basic services and safety nets, as well as “adaptive capacity” dimensions such as human capital.

There is growing evidence that cash transfers can improve resilience in the aftermath of shocks (Brandstetter, 2004; Heltberg, 2007). An evaluation of UNICEF’s UCT and voucher response in southern and central Somalia helped beneficiaries recover more rapidly from the drought (Hedlund, Maxwell, & Nicholson, 2012). According to the theory of change, cash transfers should increase consumption and investment thereby leading to improved coping strategies. This pathway will result in greater resilience at the household level.

The evaluation of Fiavota Phase 1 was designed with the objective to measure many domains, some of which contribute to resiliency measures, the survey collected data on many of the indicators that are now commonly used to measure the concept. The types of households targeted by Fiavota are those that grapple with conditions that necessitate resilience to succeed. Moreover, Fiavota households experienced the shock of drought, testing their resilience. We assess the impact of Fiavota Phase 1 using the RIMA resilience index strategy.

We find that Fiavota improved beneficiaries’ resiliency as defined by the FAO. Most of this impact comes from their improved food security or reducing the number of households who turn to negative coping strategies. Beneficiary households are less likely to reduce the amount of food consumed per meal, reduce the number of meals they consume to cope with shocks, gather wild food for meals, sell off household goods, or send household members to another house for meals. Together, these effects mean that beneficiary households are more stable and can pursue positive coping mechanisms to deal with shock instead of negative ones that push them further into poverty and create other problems. Households were less likely to resort to negative coping strategies during April–June 2018 than they were during December 2016. Households’ Reduced



### RESILIENCE

The programme increased Resilience by reducing negative coping strategies, for example, fewer Fiavota Households

- Skipped meals (**87% Fiavota** vs. **91% Comparison**).
- Reduced the size of their meals (**92% Fiavota** vs. **97% Comparison**).
- Resorted to gathering wild foods (**61% Fiavota** vs. **81% Comparison**).

Coping Strategy Index decreased from 30.6 to 27.1, meaning they were more resilient. However, it is important to note that these measures are very sensitive to seasonality, so the improvement could be due to the different time of year that data collection occurred. Table 9 shows the results of the indicators that make up the resilience index in this study.

**Table 9: Phase 1 PSM Regression Results—Resilience**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
RIMA Resilience Index (FAO)	0.30***	0.08	1859	-0.22	1859
Reduced Coping Strategy Index	-2.55**	27.05	1655	29.36	1655
Reduced the overall amount of food for each meal (last 7 days)	-0.05***	0.92	1655	0.97	1655
# times reduced the overall amount of food for each meal (last 7 days)	-0.13	5.57	1593	5.67	1593
Reduced the number of meals (last 7 days)	-0.04**	0.87	1655	0.91	1655
# times reduced the number of meals (last 7 days)	-0.10	5.40	1496	5.45	1496
Borrowed food (last 7 days)	-0.04	0.35	1655	0.39	1655
# times borrowed food (last 7 days)	-0.26	3.16	641	3.41	641
Fell back on non-preferred foods (last 7 days)	-0.05*	0.82	1655	0.87	1655
# times fell back on non-preferred foods (last 7 days)	-0.12	5.83	1446	5.94	1446
Bought food on credit (last 7 days)	0.04	0.46	1655	0.42	1655
# times bought food on credit (last 7 days)	-0.02	3.21	747	3.22	747
Practiced gathering wild foods (last 7 days)	-0.21***	0.61	1655	0.81	1655
# times practiced gathering wild foods (last 7 days)	-0.72***	5.65	1155	6.36	1155
Practiced early harvest (last 7 days)	-0.03	0.15	1655	0.19	1655
# times practiced early harvest (last 7 days)	-0.22	3.82	272	4.02	272
Sent household members to eat elsewhere (last 7 days)	-0.01	0.20	1655	0.21	1655
# times sent household members to eat elsewhere (last 7 days)	-0.50**	2.91	341	3.43	341
Sent members begging (last 7 days)	0.03**	0.09	1655	0.06	1655
# times sent members begging (last 7 days)	-0.27	2.54	98	2.78	98
Reduced meals for adults (last 7 days)	-0.06**	0.63	1655	0.69	1655
# times reduced meals for adults (last 7 days)	-0.11	5.31	1100	5.41	1100
Practiced illegal activities (last 7 days)	0.04***	0.05	1655	0.01	1655
# times practiced illegal activities (last 7 days)	-0.45	4.00	17	4.53	17
Sold household goods (last 7 days)	0.03*	0.12	1655	0.09	1655
# times sold household goods (last 7 days)	-0.35**	1.78	168	2.11	168
Borrowed money (last 7 days)	0.16***	0.34	1655	0.19	1655
# times borrowed money (last 7 days)	-0.25	2.19	381	2.44	381
Increased work (last 7 days)	-0.11***	0.29	1655	0.41	1655
# times increased work (last 7 days)	0.13	4.94	555	4.80	555

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

## 5.6. Economic activity

The cash transfer possibly could lead to improvements in economic outcomes such as earning a wage and starting a non-agricultural enterprise. An experimental evaluation of a UCT programme in northern Uganda demonstrated that average earnings rose by almost 50% during a 4-year period following the introduction of the programme (Blattman et al., 2013).

An evaluation of a cash transfer for relief intervention in Ethiopia found that beneficiaries used cash to invest in income-generating activities such as rearing livestock (Brandstetter, 2004). A multi-country study found that beneficiaries saved nearly twice as much as non-beneficiaries in Niger (Jovanovic, 2017). We do not find any impacts from the programme on the percentage of households earning a wage, running a non-agricultural business, or claiming that their income is stable. This result is not surprising given that the programme is an emergency response so might not be well suited to affect these longer-term economic indicators. We also investigated the effects of the transfer on migration for labour but there were too few individuals moving seasonally for work to run meaningful tests.

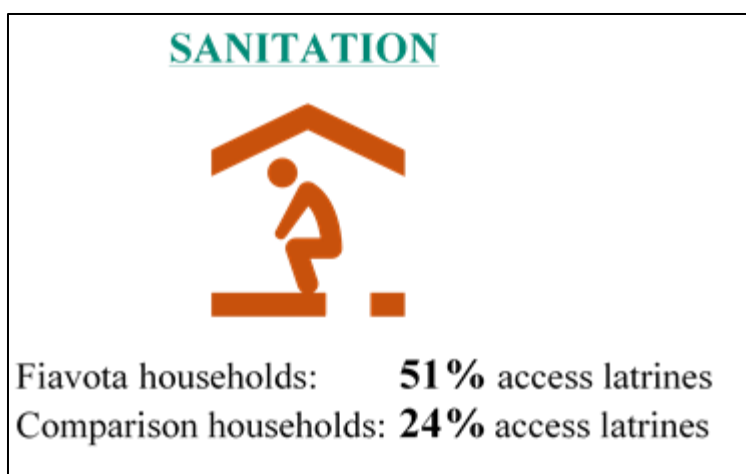


Table 10 shows the impact estimates for economic activity.

**Table 10: Phase 1 PSM Regression Results—Economic**

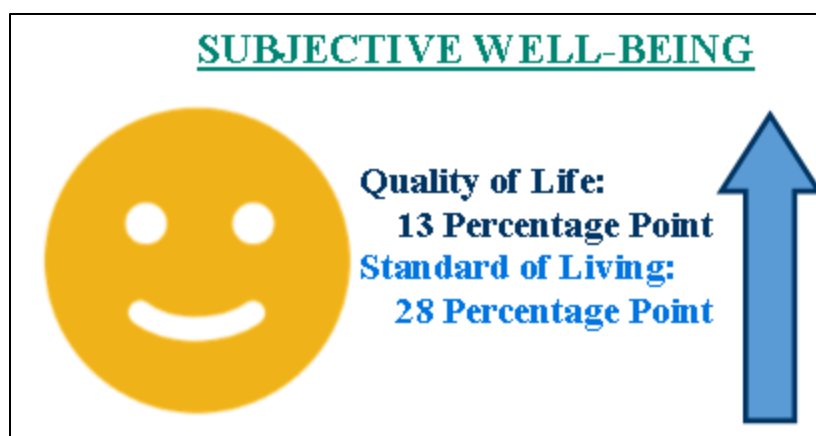
Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Earned a wage	-0.06	0.44	1870	0.50	1870
Runs a non-agricultural business	-0.01	0.35	1870	0.36	1870
Income is stable	0.00	0.02	1870	0.01	1870

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 5.7. Housing

The literature suggests that cash transfers can increase spending and investment in housing, especially following natural disasters. An evaluation of a cash transfer in the aftermath of a 7.2 magnitude earthquake in the Philippines found that 98% of families used the cash to reconstruct or repair their shelters (CRS, 2014). An assessment of a cash transfer for relief intervention in Ethiopia found that beneficiaries made investments in housing by purchasing new roofs, wall plaster, doors, and windows for their homes (Brandstetter, 2004). According to the theory of change, cash transfers should increase consumption and investment thereby leading to increased income and asset ownership. This pathway will reduce the poverty at the household level, enabling households to spend more on housing.

We find that Fiavota beneficiaries had improved access to a latrine and healthy sources of lighting. The programme had a 28 percentage point impact on latrine access, more than doubling the treatment group's access to a latrine compared with non-beneficiaries. Half of the treatment group now has access to a latrine; however,



there is still much room to improve given the importance of accessing a latrine and that half of the beneficiaries still do not have one. This result should help improve beneficiaries' health over time given their improved sanitation. Despite the effect of the transfer, the overall rate of using a latrine was actually higher at baseline (53%). Similarly, the programme increased the use of non-wood-burning methods for lighting by 22 percentage points. Using fire for cooking and lighting the house can be dangerous and constantly breathing in wood smoke is unhealthy. Almost all of the beneficiaries (87%) use other sources for lighting instead of an open fire. They were far less likely to use a clean source of lighting at baseline (51%).

Table 11 shows impact estimates for housing.

**Table 11: Phase 1 PSM Regression Results—Housing**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Walls made of purchased material	-0.04	0.07	1871	0.11	1871
Used source other than open fire for lighting	0.22***	0.87	1870	0.65	1870
Clean water source	-0.03	0.19	1870	0.22	1870
Access to a latrine	0.28***	0.51	1870	0.24	1870

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 5.8. Subjective well-being

Subjective well-being reports are self-reported measures of a household's status with respect to happiness, security, and quality of life. There is strong evidence that cash transfers can have positive effects on subjective well-being. An RCT of a UCT programme in Kenya found positive effects (of 0.14–0.18 standard deviations) on psychological well-being (Haushofer & Shapiro, 2013). In Zomba, Malawi, a study demonstrated the ability of a cash transfer to improve female adolescent mental health outcomes, and the authors concluded these impacts were driven by physical health, increased schooling, and family support for education, as well as higher levels of individual consumption and leisure (Baird, de Hoop, & Özler, 2013). The Kenyan government's Cash Transfer for Orphans and Vulnerable Children programme also had positive impacts on mental health; however, impacts were largely found among males (Kilburn et al., 2014). AIR's evaluation of the No Lost Generation programme in Lebanon found positive impacts on child well-being with children in pilot governorates feeling more optimistic, confident, and assertive

(de Hoop, Morey, Ring, Rothbard, & Seidenfeld, 2018). According to the theory of change, cash transfers should increase consumption, investment, and time spent participating in productive activities thereby leading to improvements in child and adult health and the ability to cope with external shocks, increased income and asset ownership, and reduced intrahousehold conflict. In sum, these outcomes lead to improvements in subjective well-being.

The programme consistently affects subjective well-being measures, especially quality of life and standard of living. Beneficiaries report having had a better quality of life in 2017 as compared with the previous year, a 13 percentage point impact. Similarly, more beneficiary households feel that their standard of living was better in 2017 than in the previous year, a 28 percentage point impact. Households reported a much higher satisfaction with the quality of their life after receiving the transfer compared with the year before. Households said their standard of living stayed the same or improved just 31% of the time before the transfer. After the transfer, 45% felt their standard of living stayed the same or improved. Table 12 shows the impact estimates for subjective well-being.

**Table 12: Phase 1 PSM Regression Results—Subjective Well-being**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Household's quality of life the same or better in 2017	0.13***	0.61	1870	0.48	1870
Overall quality of life the same or better in 2017	0.13***	0.63	1870	0.49	1870
Household's standard of living the same or better in 2017	0.27***	0.45	1870	0.20	1870
Overall standard of living the same or better in 2017	0.28***	0.46	1870	0.19	1870
Happy overall	0.02	0.07	1871	0.06	1871
Never forced to use savings or debt	0.01	0.32	1870	0.31	1870
Life is not difficult	0.29***	0.40	1870	0.12	1870

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 5.9. Intrahousehold dynamics

The literature is mixed related to the effect of cash transfers on female decision making at the household level. An evaluation of the Kenya Hunger Safety Net Programme noted increased tension between spouses, although it also found increases in the proportion of women named as the primary decision maker concerning finances and increased women's role in household income generation (OPM and IDS, 2012). An assessment of the Government Child Support Grant in South Africa found improvements in women's ability to control and allocate resources, yet women still maintained their traditional role as caregiver in the home (Patel & Hochfeld, 2011). AIR's evaluation of the Zambian Child Grant Program found modest changes in decision making and intrahousehold relationships (Bonilla et al., 2017). According to the theory of change, increases in consumption, investment, and involvement in productive activities will lead to reduced intrahousehold conflict thereby resulting in improved family cohesion.

We too find mixed results for the programme's impacts on households dynamics between husband and wife. Both husbands and wives report an increase in their spouse's not making

unpleasant remarks about them and at similar rates with a 4 percentage point impact. However, both husbands and wives also say that there was a decrease in their spouse's giving full access to their money with a similar 3 percentage point increase. These impacts are small and balanced across gender. Table 13 shows the results for the impact estimates on household dynamics.

**Table 13: Phase 1 PSM Regression Results—Household Dynamics**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Husband made no unpleasant remarks about physical appearance	0.04***	0.92	1621	0.88	1621
Husband never devalued opinion in front of children	0.00	0.90	1613	0.90	1613
Husband gave full access to HH money for HH needs	-0.03**	0.90	1608	0.93	1608
Husband never insulted or injured	0.00	0.93	1608	0.93	1608
Husband never used physical violence	0.00	0.96	1608	0.96	1608
Husband does not threaten verbally or with objects	0.01	0.91	1608	0.90	1608
Wife made no unpleasant remarks about physical appearance	0.03**	0.92	1542	0.88	1542
Wife never devalued opinion in front of children	0.00	0.89	1533	0.89	1533
Wife gave full access to HH money for HH needs	-0.03**	0.90	1535	0.93	1535
Wife never insulted or injured	0.00	0.92	1535	0.92	1535
Wife never used physical violence	0.00	0.95	1535	0.96	1535
Wife does not threaten verbally or with objects	0.01	0.90	1535	0.90	1535

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.



## 6. Individual-Level Impacts

The programme can generate impacts at the individual level as well as at the household level. In this section, we present individual-level impacts with a particular focus on children because they are a key target group of the programme in that a household must have a child to be eligible, and for adults because the programme can have effects throughout the household. We investigate multiple child domains from the theory of change, specifically nutrition, health, protection, and education. We investigate differential impacts by gender at the individual level and present them in Appendix C. We do not find any consistent impact by gender, household size, or female-headed households, thus discuss them only in the appendix.

### 6.1. Child nutrition

Unconditional cash transfers typically have the dual goals of increasing food security and resilience of poor and vulnerable households, and improving dimensions of human capital (The Transfer Project, 2014). They often target households with young children and have the specific aim to improve children's nutrition (Davis, Gaarder, Handa, & Yablonski, 2012). Cash transfers therefore, have the potential to provide the supplementary income necessary to purchase complementary foods and other inputs related to child nutrition. In South Africa in particular, cash transfers have been found not only to improve food security and nutritional outcomes for transfer recipients, but also to have had positive impacts on the nutritional outcomes of all household members (Agüero, Carter, & Woolard, 2007; Vincent & Cull, 2009). The theory of change shows the pathways for how the programme could improve child nutrition. We investigate the possible impacts of Fiavota on child nutrition.

We find mixed results regarding the programme's impact on child nutrition. We find that the programme increased the likelihood of ever being breastfed for children younger than 2 years old with an 8 percentage point impact. However, the programme decreased the likelihood that children are currently being breastfed. Unclear is why these two, seemingly contradictory results occur. Similarly, we find the programme reduced instances of wasting and malnourished by 2 and 5 percentage points, respectively; however, stunting increased by 7 percentage points in the treatment group. We also checked if nutrition impacts were concentrated among children who had been exposed to the programme for their entire life. When we restrict analysis to children under two years old, we find results that are consistent with the overall findings for all children 0-5 years old. Table 14 shows the results for child nutrition.

Child nutrition indicators are very sensitive to measurement error and can provide incorrect results if the measures are not taken very precisely. The data collected on nutrition possibly were not of the highest standard and might have led to these contrary results. Some programmes do not have large effects on child nutritional outcomes because they are very hard to impact with cash alone. In fact, evidence to date suggests that cash alone has not been successful at improving young child nutrition on average due to the complexity of factors that underlie malnutrition (de Groot et al. 2017). These results have led to advocacy for 'cash-plus' approaches that leverage synergies between cash and complementary services and linkages such as nutritional supplements, water and sanitation interventions, agricultural subsidies, and healthcare programmes (Roelen et al. 2018). Research on cash plus models is scarce and investigating if and how 'plus' models can be best



leveraged for positive impacts on children is of high interest. However, Fiavota did incorporate nutrition support programs, so this evaluation will provide information on cash plus models.

**Table 14: Phase 1 PSM Regression Results—Children's Nutrition**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Was breastfed (children <2 years old)	0.08***	0.78	1956	0.70	1956
Currently breastfed (children <2 years old)	-0.07***	0.42	1915	0.48	1915
Number of times child ate solid food (yesterday, <2 years old)	-0.10	2.19	2132	2.26	2132
Stunted (children 0–5 years old)	0.07***	0.42	2535	0.35	2535
Wasted (children 0–5 years old)	-0.02*	0.09	2533	0.11	2533
Underweight (children 0–5 years old)	0.00	0.25	2535	0.25	2535
Acute malnourishment (MUAC) (children 0–5 years old)	-0.05***	0.14	2537	0.19	2537

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 6.2. Child health

A great deal of literature demonstrates the effects of cash transfers on child health, especially when the cash programme targets children (de Groot et al, 2017; Hirvonen, Bossuyt, & Pigois, 2017; Huang, Singh, Handa, Halpern, Pettifor, & Thirumurthy, 2017;). In Kenya, the Cash Transfer for Orphans and Vulnerable Children was linked to an improvement in key child health outcomes, namely a reduction in childhood diarrhea and a 13 percentage point increase in accessing preventative care for children's health (Ward et al., 2010; Davis et al., 2012). We investigate impacts on child health with respect to overall health, recent health, and access to healthcare.

We find consistent evidence that Fiavota had large effects on improved child health across all indicators. Caregivers report that their children of all ages are in better health than the comparison group by almost 10 percentage points. Similarly, a greater number of treatment children's health improved compared with non-recipients. Beneficiary households are 26 percentage points more likely to visit a health centre, representing an almost 100% increase over the comparison group. Beneficiary households also spend more money on child healthcare than comparison households, spending roughly 30% more. These results are fairly consistent with impacts observed in other cash transfer programmes in sub-Saharan Africa that target poor, rural children. Table 15 shows the impacts for child health by age (younger than 5 years old and between 5 and 17 years old).

**Table 15: Phase 1 PSM Regression Results—Children's Health**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
In good health last 12 months (children 5–17 years old)	0.07***	0.75	1574	0.69	1574
In good health last 12 months (children <5 years old)	0.09***	0.71	1779	0.63	1779
Health status stayed same or improved (children 5–17 years old)	0.08***	0.83	1569	0.75	1569
Health status stayed same or improved (children <5 years old)	0.09***	0.78	1774	0.69	1774
Healthy last 2 weeks (children 0–17 years old)	0.07***	0.85	7698	0.78	7698
Visited health centre (children 0–17 years old)	0.26***	0.62	1533	0.36	1533
Total healthcare expenditure (in Ariary) (children 0–17 years old)	5,561.61**	20188.77	681	14958.96	681
Skipped treatment due to reason other than costs (children 0–17 years old)	0.01	0.41	628	0.40	628

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*

### 6.3. Child protection

Many cash transfer studies demonstrate that improving a household's food consumption, as well as their access to basic needs such as healthcare, decreases the demand for children to contribute to income generation and household chores (de Hoop & Rosati, 2014; Fisher et al., 2017; Handa et al., 2017; Kilburn, Handa, Angeles, Mvula, & Tsoka, 2017; Prifti et al., 2017). Additionally, several studies demonstrate the connection between decreased child work and increased school outcomes. We investigate indicators related to child protection such as parental interaction; engagement in economic activity; material well-being (access to blanket, shoes, and clothing); and parental expectations for their child with respect to education and marriage.

We do not find any impacts of the programme on parental engagement with their children with respect to monitoring their education, health, and playing with them. However, these indicators are already at quite high levels in both the treatment and comparison group, indicating that there is not much room for the programme to generate additional impacts. In other words, a ceiling effect might be occurring for these indicators.

However, we find large and consistent impacts for the rest of the child protection indicators except shoes—almost no child has shoes. Children in beneficiary households are 4 percentage points more likely to not engage in economic activity in the last week. More beneficiary children have access to a blanket and second set of clothing with a 10 percentage point and 20 percentage point impact respectively. Parents in the treatment group prefer their son and daughter to marry at a slightly older age than parents in the comparison group, though the difference is less than a year for both genders. Parents in the treatment group also desire their children to complete at least 2 more years of education than parents in the comparison group. Table 16 shows the impacts for child protection indicators.

**Table 16: Phase 1 PSM Regression Results—Child Protection**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Monitors child's education	0.04	0.88	1244	0.85	1244
Monitors child's health	0.00	0.98	1827	0.98	1827
Plays with child	-0.02	0.73	1800	0.75	1800
Did not engage in economic activity in the last 7 days (children 5–17 years old)	0.04***	0.91	4712	0.88	4712
Have a blanket (children 5–18 years old)	0.10***	0.17	4928	0.07	4928
Have a pair of shoes (children 5–18 years old)	0.01	0.03	4928	0.02	4928
Have two sets of clothes (children 5–18 years old)	0.20***	0.66	4928	0.47	4928
Ideal age for son to marry	0.79***	22.91	1693	22.17	1693
Ideal age for daughter to marry	0.58**	20.57	1636	20.04	1636
Years of desired education for girls	2.00***	11.25	1871	8.98	1871
Years of desired education for boys	2.70***	11.70	1870	8.75	1870

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

## 6.4. Children's education

The positive effects of cash transfers on educational outcomes is well established in the literature. Recent systematic reviews and meta-analyses have documented the positive impacts of cash transfers on education outcomes (Baird et al., 2014; Fiszbein & Schady, 2009; Saavedra & Garcia, 2012), finding an average 6% improvement on school enrolment and a 3% improvement on student attendance. Effect sizes on schooling outcomes have been found to depend in part on the size of the transfer and access to schools. According to the theory of change, cash transfers should increase spending and children's time spent in school, leading to improved school readiness and increase schooling.

We find evidence that suggests Fiavota may have had large impacts on school enrolment with a 29 percentage point increase for beneficiary children, bringing them to a 72% enrolment rate. Similarly, beneficiary children attended school more often, averaging 0.34 more days per week than comparison children at 4.67 days per week. This indicator tops out at 5 days per week, so there is less room for the programme to show improvements. More beneficiaries report having sufficient funds for school fees with an 11 percentage point impact. We find a negative effect on whether the child received food in school, with a 13 percentage point decrease. Perhaps this indicates that schools are less likely to provide food for children if they know the child receives the transfer. This is something for the programme implementers to investigate further. Table 17 lists the impacts on education by the Fiavota programme.

**Table 17: Phase 1 PSM Regression Results—Education**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Ever enrolled in school children (5–17 years old)	0.27***	0.80	4718	0.53	4718
Enrolled in school in 2017–18 (children 5–17 years old)	0.29***	0.72	4717	0.44	4717
Number of school days attended in the last week	0.34***	4.67	2808	4.33	2808
How often missed school in last 4 weeks	0.02	0.32	2808	0.29	2808
Receive food in school	-0.13**	0.56	2808	0.68	2808
Out of school for reasons other than cost (children 5–17 years old)	0.22***	0.45	1749	0.24	1749
Can read well (children 5–17 years old)	0.07***	0.19	4717	0.12	4717
Can write well (children 5–17 years old)	0.07***	0.19	4717	0.12	4717
Can do calculations (children 5–17 years old)	0.05**	0.32	4716	0.27	4716
Total education expenditure per capita (in Ariary)	-577.48	12289.03	2462	12863.00	2462
Means are sufficient for school fees	0.11***	0.58	1127	0.48	1127

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

## 6.5. Adult health

The study did not collect many individual-level indicators for adults because it is a child-targeted programme and most adult outcomes occur at the household level. However, we can investigate impacts related to adult health. According to the literature, there is strong evidence that cash transfers have positive impacts on health. Assessments of cash transfers have found improvements in health, particularly through the uptake of health services (Taaffe, Longosz, & Wilson, 2017). According to the theory of change, cash transfers should increase spending on health needs, time spent using health services, and increase health knowledge thereby leading to reducing sickness throughout the household.

Phase 1 of Fiavota produced strong impacts to health indicators consistent with the theory of change pathways for the programme. Beneficiaries were 19 percentage points more likely to visit a health centre and spent more than 36,200 more Ariary on health expenditures than the comparison group. The primary pathway for cash transfers to affect health is through increased access to services and spending on healthcare, both of which we see here. Thus, it follows that beneficiary adults report that their health is the same or better from a year ago at 12 percentage points higher than the comparison group. However, only 26% of beneficiary adults report improved health and even fewer comparison adults report improved health (14%), indicating that health is a serious problem facing this population and the programme has much room to improve. There is no evidence that the programme affects pregnancy. Table 18 lists the impacts to adult health indicators.

**Table 18: Phase 1 PSM Regression Results—Health**

Variables	Impact estimate	Treatment mean	Treatment N	Comparison mean	Comparison N
Adults' health status stayed same or improved	0.12***	0.26	1842	0.14	1842
Adults in good health (last 12 months)	-0.04	0.60	1844	0.65	1844
Healthy (last 2 weeks)	0.04**	0.77	3729	0.73	3729
Visited health centre	0.19***	0.61	989	0.41	989
Total healthcare expenditure (in Ariary)	36,214.87***	66987.35	427	30274.75	427
Skipped treatment due to reason other than costs	0.03	0.35	472	0.32	472
Currently pregnant (ages 18+)	0.00	0.15	1797	0.14	1797
Currently pregnant (15-17)	-0.02	0.05	219	0.07	219

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

## 7. Effectiveness

The effectiveness of the programme can be assessed in the long run through its ability to achieve stated objectives and in the short run through its ability to operate as designed. If a programme is not implemented properly, it is unlikely to achieve its objectives in the long run. This report already presented the evidence of where the programme achieved impacts related to its objectives. At the household level, we observe improvements in livelihoods through increased crop production and livestock ownership, improved food security and diet diversity, and stronger resilience. For children, we find improvements for child well-being, especially with respect to health, education, and social protection. We do not observe consistent impacts to child nutritional outcomes, though these indicators rarely move in cash transfer programmes without other services provided.

The rest of this section reports on the effectiveness of the programme. We employ mixed methods to collect and analyse data. First, we report a summative evaluation of the programme's effectiveness for achieving goals. Then, we report on how effective the programme was at delivering transfers correctly and clearly. Some data come from the household survey, but only households that received the programme (the treatment group) and were not asked of the comparison group because they did not engage with the programme. Other data come from interviews with key staff and stakeholders of the programme especially at FID. Given the small number of stakeholders and programme implementers interviewed, we do not indicate who provided specific data for the purpose of anonymity.

### 7.1. Effectiveness of achieving goals

We investigate how successful Fiavota was at achieving its primary goals. We focus on the four goals that are laid out in programme documentation: stabilizing household income, rebuilding household assets, strengthening access to nutrition services, and supporting children's school enrolment.

#### 7.1.1. *Stabilize income*

The evidence from this evaluation suggests that Fiavota was not successful in stabilizing households' income. We find no evidence that the Fiavota beneficiaries became more likely to receive a wage, run a non-agricultural business, or say that their income is stable. In fact, less than two percent of households reported that their income was stable. Income is a difficult outcome to measure for individuals who do not work in a formal salaried position. Instead, it is useful to consider proxies that are related to income even if they do not measure income itself. For instance, 49 percent of households reported that they grew a crop. If the weather patterns are unstable, then these individuals are subject to unpredictable weather shocks. Crop production is an important potential source of income in rural environments like the south of Madagascar. Despite these findings that suggest the programme was ineffective, Fiavota was successful at improving the standard of living. 27 percent of households reported that their household's standard of living improved and 28 percent of households reported that the overall standard of living for their community improved. These findings do not necessarily mean that income was stabilised but do suggest the transfers may have improved individuals' lives.

### **7.1.2. Rebuilding assets**

The Fiavota transfer was successful at improving households' asset ownership. In particular, more households owned livestock due to the transfer. The transfer allowed an extra 19 percent of households to own a sheep, 52 percent of households to own a goat, and 22 percent of households to own a chicken. Livestock serve an important role as an investment asset because they fill the dual purpose as a store of wealth and as a source of nutritious foods, such as milk, eggs, and meat. Our findings suggest that the Fonds de Redressement was primarily responsible for the improved livestock ownership. The funds required a plan for investment and some households reported their community collaborated to purchase goats.

The transfer also improved households' building materials. A household can invest in the quality of their home, treating their home as an asset. The transfer made households 22 percentage points more likely to use a light source other than open fire and 28 percent more likely to have access to a latrine. Investments in housing assets are not likely to provide a buffer against shocks but do improve other important household outcomes like health.

### **7.1.3. Strengthen access to nutrition services**

We find that the programme had limited impacts on children's nutritional status despite having a positive impact on households' food security. It is important to know whether households have access to high-quality nutrition counselling. Most households receive nutrition information from community agents (64 percent) or from a nutrition site (31 percent). Beneficiary households reported generally having access to nutrition counselling. However, we have no information on the quality of the information that the community agents or the nutrition site provided to households. If the quality of the nutrition counselling is ineffective, that may contribute to some of the unexpected findings. For example, we found that children under 2 years old were less likely to still be breastfed. We find no evidence that the rates of stunting and underweight decrease. However, we do find evidence that households' overall food security situation improves. Even so, this finding does not necessarily mean that households were accessing better nutrition counselling because there are other explanations, like increased income from the transfer or investment in livestock. In fact, there is suggestive evidence that households may not have been receiving counselling on a variety of topics. For example, the majority of households in treatment areas said that they received no counselling whatsoever from the Espace de bien-être. This assertion suggests that the additional services to support Fiavota may have been ineffective.

### **7.1.4. Support children's school enrolment**

Fiavota successfully supported children's school enrolment. Children were 29 percentage points more likely to have enrolled in school. It is also important to note that beneficiary children attended 0.34 more days of school per week. This finding means that the programme successfully got more children to enrol in school and attend more school once they enrolled. Part of the reason that we see this success appears to be because households are better able to afford school. The transfer led 11 percent of households to report that they have the means to pay school fees. Among those out of school, 22 percentage points less cite cost as the reason they are out of school. Overall, the programme seems to promote better learning. Beneficiary children are

7 percentage points more likely to write well and 7 percentage points more likely to read well. Similarly, they are 5 percentage points more likely to be capable of doing calculations. Overall, the transfer effectively supported not only children's school enrolment but also the quantity of their time in school and some learning outcomes.

## **7.2. Effectiveness of implementing programme**

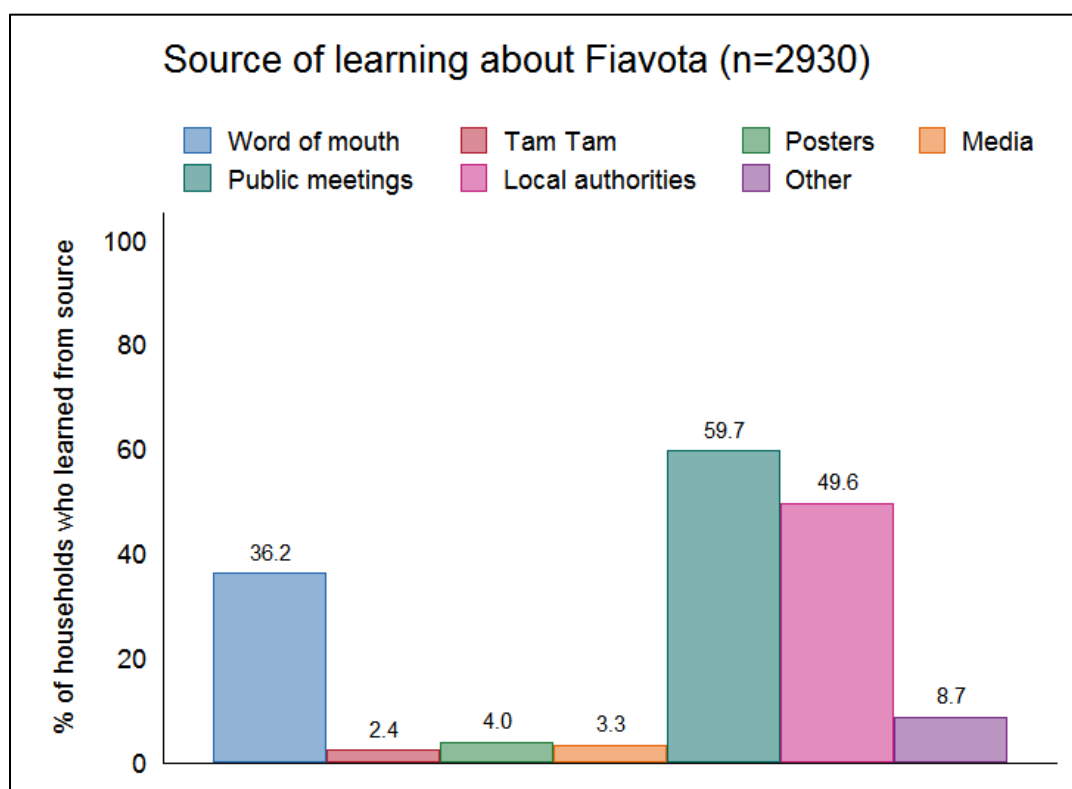
Beneficiaries' perceptions, beliefs, and experiences can influence their behaviour and ultimately affect the programme's ability to achieve stated goals. We investigated three aspects of implementation to better understand beneficiaries' experience with the programme. First, we examined beneficiaries' understanding of eligibility to see their perspective of why they qualify for the programme. We then looked at the related issue of how easily beneficiaries accessed the money considering their travel time and cost to reach the location where they withdrew funds. We concluded with qualitative findings on programme implementation from the implementers' experience. The results from this section can help explain why the programme may or may not achieve certain objectives. The results also provide useful information on how to improve the implementation of the programme. Overall, we conclude that the transfer was successfully implemented. Households understand the general parameters of the transfer, received the money on time, and without substantial problems.

### **7.2.1. Familiarity with the programme**

Overall, people know about the programme and where to access information; however, there is some misunderstanding about eligibility, payment frequency, and where the funds originate. Almost everyone knows about the Fiavota programme by name (99%) and learned about it through either public meetings (60%), local authorities (50%), or both. About a third of sample learns about the programme through word of mouth, while very few learn from posters, media, or Tam Tam. Figure 10 shows the ways that beneficiaries receive information about the programme. Over half of the beneficiaries understand that they need to have a child to be eligible for the programme, with a third of the sample incorrectly believing that they are eligible because they are poor. Communicating about eligibility criteria might be a place the programme implementation can improve so that the community understands why or why not someone receives the programme, thus creating more transparency. Figure 11 shows the distribution of reasons they perceive as their eligibility for the programme. Perhaps more concerning is that more than half of the beneficiaries (55%) report not knowing when they will receive their next transfer. Understanding the recurring frequency of the transfer helps households plan for the future and manage their finances. If households do not know when the next transfer will arrive, they might not make the best decisions regarding how they allocate their resources, thus reducing the potential impact of the programme. Figure 12 shows the distribution of beneficiaries' understanding about the timing of payments. Last, we find that few beneficiaries know the source of the funds for the cash transfer and most believe that FID, the programme implementer, is also the source of the funds (83%). The main concern with this misbelief is that if a beneficiary experiences a problem with FID, they might refrain from raising it thinking that they do not want to jeopardize their status in the programme and fearing that FID could stop payments to them. Perhaps if beneficiaries know that FID is contracted to make the payment but it is not FID's funds, they would feel freer to communicate any problems they experience. Figure 13 shows the distribution of beneficiaries' beliefs about who funds the programme.



**Figure 10: Percentage of Households' Source of Learning About Fiavota**



**Figure 11: Households' Perceived Reasons for Eligibility**

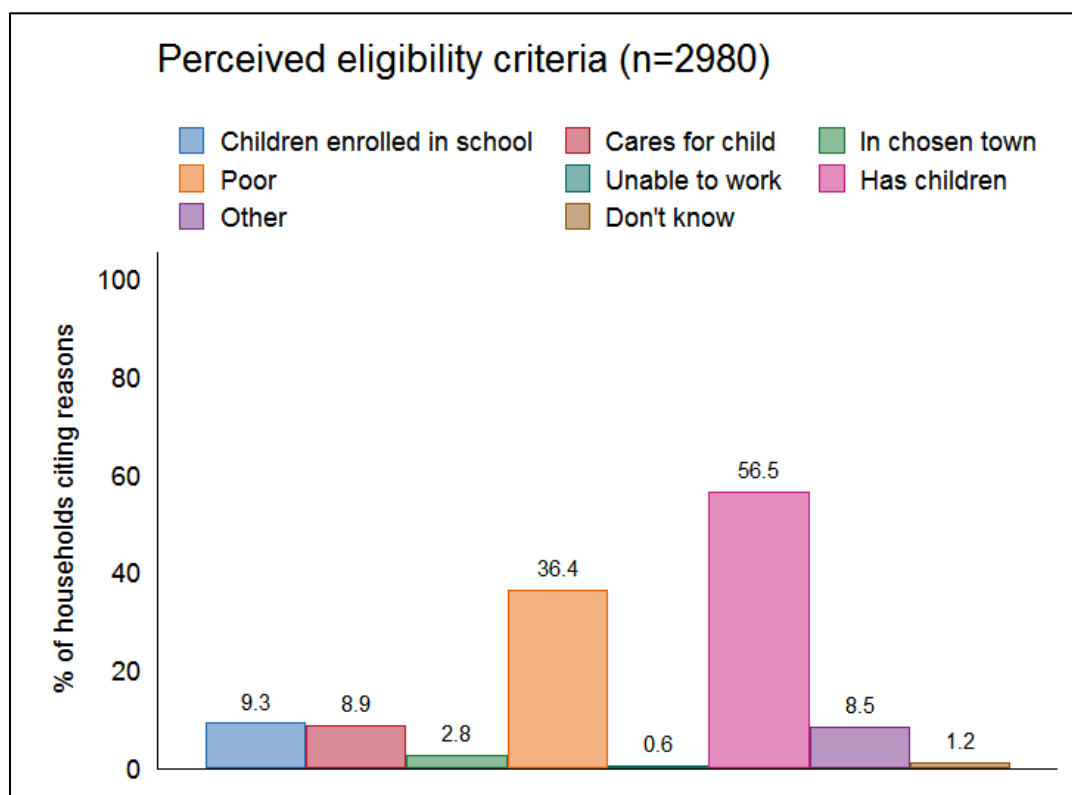


Figure 12: Households' Expectations for Timing of Next Transfer

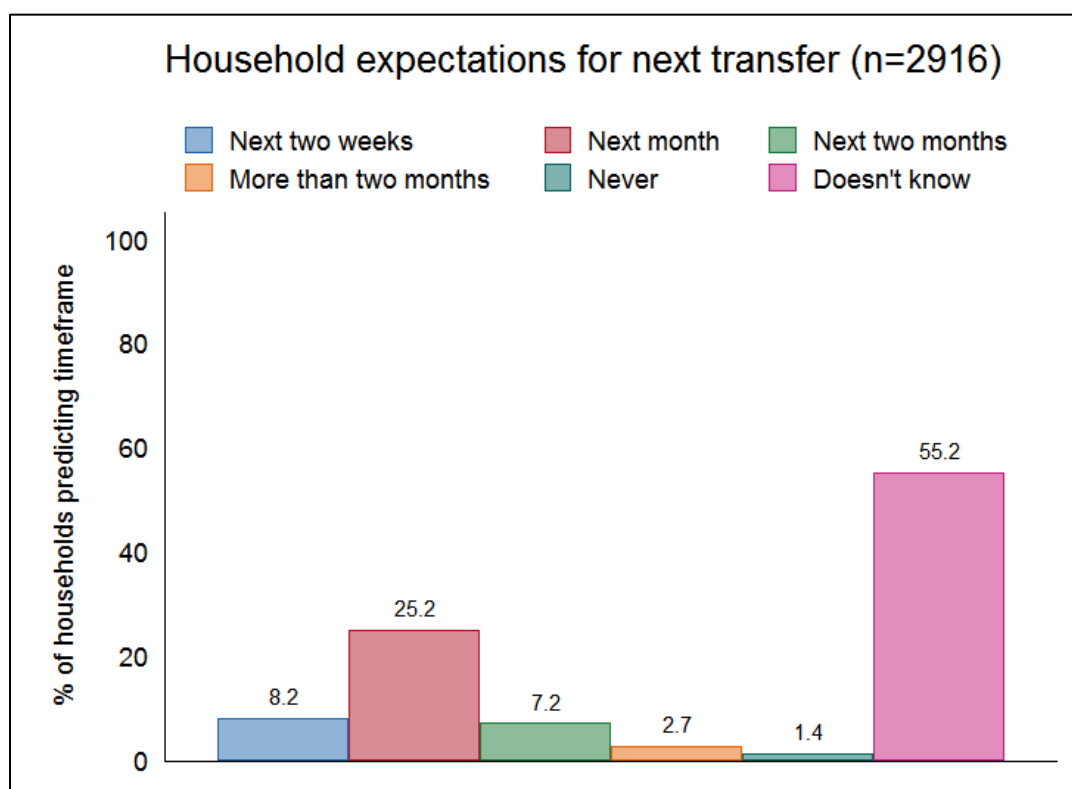
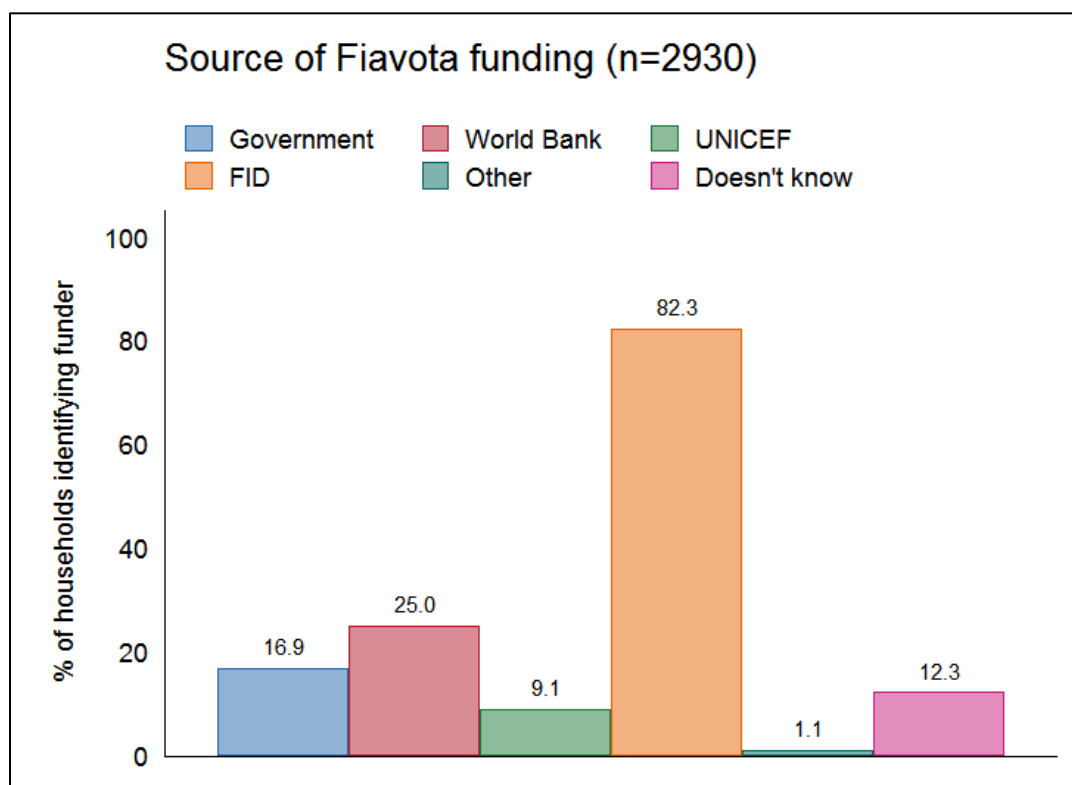


Figure 13: Households' Perceived Source of Fiavota Funding

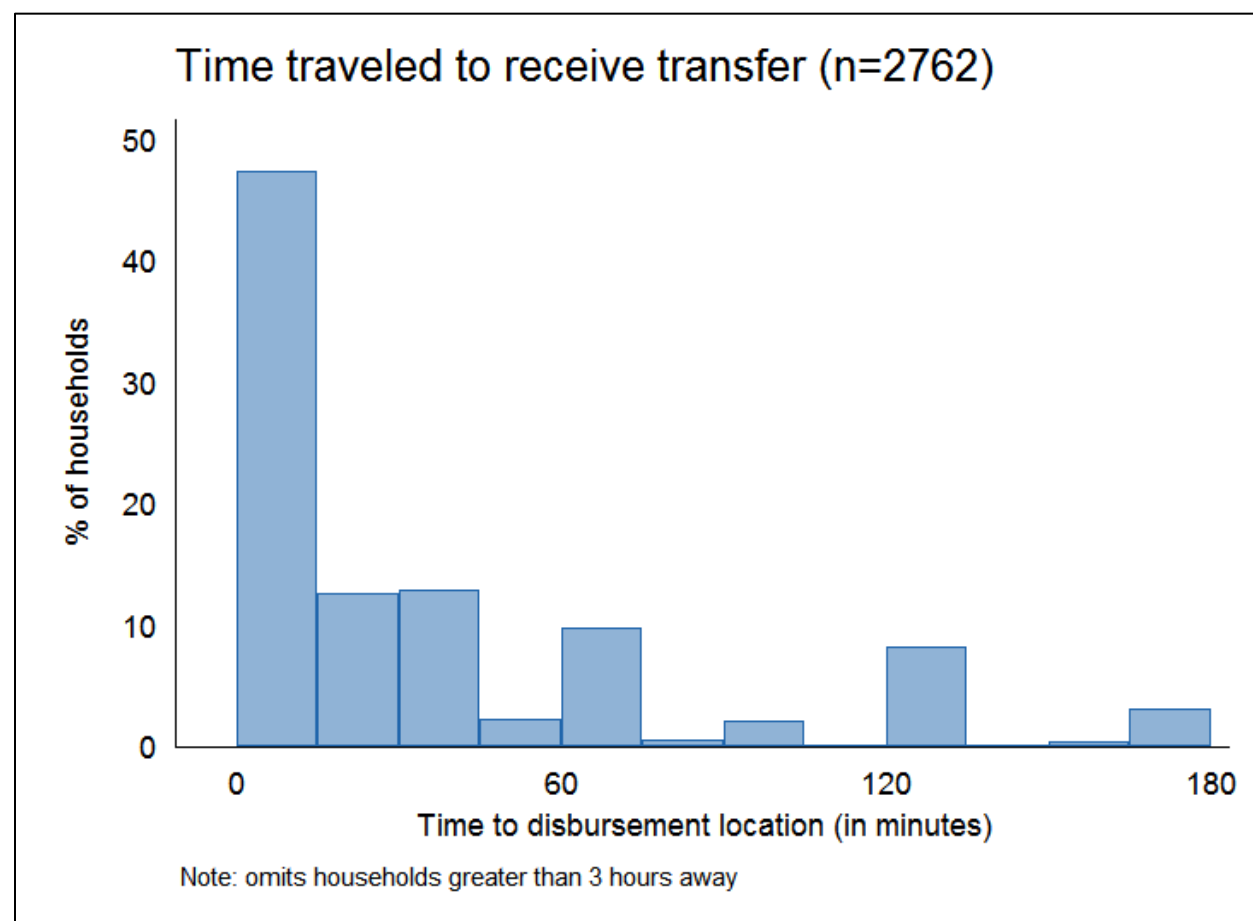


### **7.2.2. Experience receiving transfers**

We find that beneficiaries have in general a positive experience receiving the transfers with reasonable travel time to access payments at low cost to them. Perhaps most telling is that 94% report receiving the transfer “without trouble”. Table 19 presents the means for beneficiary-reported indicators about the programme. A beneficiary travels an average of 35 minutes to receive her transfer, though roughly 25% of beneficiaries must travel more than an hour. Reducing the travel time of those who must travel more than an hour, especially those who travel upwards of 2 hours, might represent a way to improve the programme and in turn the impacts it can generate. Reducing travel time implies increasing the number of distribution points, which bring operational challenges related to security and operating costs. Figure 14 shows the distribution of travel time in minutes for beneficiaries to access their payment. Regardless of their travel time, almost everyone reports receiving the transfer without having to pay money (99%). This somewhat vague indicator can be interpreted to mean that they did not have to pay for transportation or bribes, both are positive results. On the slightly more troubling side is that 83% report missing a payment at some point, though we do not know why they missed the payment and if their missing it results from something occurring on their end or from the supply side. However, 85% report eventually receiving the payment that they missed, so the money is not lost to them.

**Table 19: Operational Performance Statistics**

Outcome	Mean	N
Know of Fiavota transfer	0.99	2968
Missed a payment	0.83	2916
Eventually received missed transfers	0.85	484
Time to go to disbursement location (in minutes)	35.07	2762
Received transfer without paying money	0.99	2916
Got money without trouble	0.94	2916

**Figure 14: Travel Time to Access Transfer**

### 7.2.3. Experiences from stakeholders

The research team conducted qualitative interviews with some of the programme implementers to learn their experience and views about the programme. The two main findings resulting from the interviews concern national identification cards and the complaint mechanism. Both of these issues were mentioned by multiple people and highlighted by each as a prominent challenge.

It seems that many beneficiaries or potential beneficiaries do not have national identification cards, thus posing challenges to enrolling them in the programme and later on for making

payments. However, potential beneficiaries do not accept this criterion and want help finding a way to receive payments/acquire a national identification card. The research team witnessed these challenges in other cash transfer programmes in southern Africa. Ideally the programme can coordinate with the ministry responsible for distributing national identification cards to get everyone registered. This also would likely enable these vulnerable households to access other programmes that also require national identification and create synergies between Fiavota and complementary programmes.

The other challenge frequently mentioned is the lack of viable complaint mechanism. Respondents state that few beneficiaries call into the complaint phone line even though they know beneficiaries have issues that they want to discuss. The concern is that many beneficiaries do not have access to a phone to be able to call in. FID collects complaints in person when they can and tries to address them, but that is not the formal mechanism designed into the programme operations and prefers that issues are addressed at the lowest level. Beneficiaries can go to their social protection committee to raise complaints, but this path prevents anonymity and might dissuade beneficiaries from voicing their issues.

## 8. Relevance

The first phase of the Fiavota cash transfer programme began as a humanitarian response to the severe drought caused by El Niño effects in a region of Madagascar that was already suffering from high levels of malnutrition and food insecurity. Stakeholders decided an unconditional cash transfer in the immediate timeframe would help reduce food insecurity while also enabling households build resilience for future shocks through investment in productive assets. The UN's humanitarian team prepared three goals and five strategic objectives for the programme that we use to help assess programme relevance:

### **Goal 1: Save lives**

*Strategic objective 1.* Avoid loss of human lives, especially among children younger than 5 years old and pregnant and lactating women in zones classified as being in "Emergency" (IPC 4) and "Crisis" (IPC3) under the Integrated Phase Classification (IPC).

*Strategic objective 2.* Improve food security and restore livelihoods of the most vulnerable households in zones classified as in "Emergency" (IPC 4) and "Crisis" (IPC 3).

### **Goal 2: Prevent deterioration of the humanitarian situation**

*Strategic objective 3.* Provide key health services, including maternal healthcare, to the most vulnerable households and ensure monitoring of diseases requiring medical care in the Grand Sud.

*Strategic objective 4.* Ensure continuity of social services that will prevent the occurrence of negative coping mechanisms from the population in "Emergency" (IPC 4) and in "Crisis" (IPC 3).

### **Goal 3: Develop a crisis exit strategy concurrently with the humanitarian response**

*Strategic objective 5.* Implement jointly with development actors a crisis exit strategy as part of the early recovery process and community resilience building.

**Goal 1:** The programme achieves strong relevance with respect to the first goal of saving lives with a focus on food security and improved livelihoods. The programme targets households with children suffering from severe food insecurity due to drought, households that would have to turn to negative coping strategies such as selling off assets, reducing food consumption, and child labour to meet basic needs. The programme demonstrates strong effects for improving food security and in turn reducing the use of negative coping strategies among beneficiaries as compared with the comparison group who do not receive the programme. There is still room to improve across these domains with more than half of the beneficiaries still suffering from severe food insecurity (but less than the comparison group). The programme possibly will require more time to demonstrate sustained and lasting effects, further reducing food security and vulnerability through increased productivity

**Goal 2:** One potential benefit of cash transfer programmes is to ease the constraints to accessing services by enabling households to pay for transportation or user fees and freeing up time to attend services by reducing the need to focus on finding the next meal. So, although the cash transfer does not provide services directly, it can remove barriers to access. In this respect, we find the programme produces impacts that are relevant to goal 2. Beneficiaries attend health centres more often than the comparison group, with the programme producing a 20 percentage point impact on attending a health centre for adults. Meanwhile, the programme also increases children's access to school. We find large impacts on school enrolment with a 29 percentage point increase for beneficiary children, bringing them to a 72% enrolment rate. Similarly,

beneficiary children attended school more often, averaging 0.34 more days per week than comparison children at 4.67 days per week. Thus, it appears that the programme achieves relevance with respect to goal 2. However, the programme addresses only demand-side constraints and does not affect the supply side. Although more people are accessing services, we do not know about the quality or effectiveness of those services because the programme does not address quality. If people are not satisfied with the quality of services, we might find that attendance/enrolment in these services declines over time. Ideally the programme forms linkages with service providers to improve both the demand and supply sides of the service.

**Goal 3:** The Fiavota programme started with an emergency response phase, Phase 1 that is evaluated in this report, and then shifts to an early recovery phase, Phase 2. Phase 2 already started and is part of a separate evaluation study. Therefore, the programme is designed such that later phases move toward an exit strategy. That said, aspects of Phase 1 relate to an exit strategy and enable households to function without being dependent on the transfer. The programme affects two key domains that support the ability of households to exit from the programme, namely productivity and resilience. The programme increases households' crop production as well as the number of livestock that they own. Both of these results mean that the transfer does not only serve as protection against immediate challenges to the household's livelihood, but also helps with their productivity. If households produce more, they should have more for the future, helping them improve over time and become less dependent on the transfer. Moreover, we find that the programme improves a household's resiliency, making them less vulnerable to future negative shocks and less likely to need the cash transfer in the future. All of these effects of the programme contribute to an exit strategy for the programme that leaves the beneficiaries in a more sustainable place as per goal 3. However, these are very vulnerable households who will likely need more assistance in the future even with the gains observed from the programme. Perhaps Phase 2 will continue to move households to a place where they are less vulnerable and more likely to succeed without a continued transfer.

## 9. Conclusion and Recommendations

The first phase of Fiavota consisted of two elements, a lump sum transfer called the recovery fund and a recurring monthly transfer, with the goal of helping vulnerable rural households deal with the negative shock to their livelihood caused by the regional El Niño drought. This impact evaluation highlights both the potential for programmes like Fiavota to improve food security and household livelihoods *and* the challenges of improving these outcomes in humanitarian crisis settings. We find that Fiavota produces impacts on the primary needs of households after 16 months of implementation. In the protective domain, the programme increases food security, overall consumption, diet diversity, and health for adults and children, and enables households to engage in positive coping strategies in the face of shocks. It further leads to improvements in the material well-being of children in terms of possession of clothes and blankets. In the social domain, Fiavota generates large increases in school enrolment. Indeed the impacts produced by Fiavota are some of the largest schooling effects reported for any cash transfer programme, whether conditional or unconditional, at close to 30 percentage point impact on enrolment. Finally, in the productive domain, Fiavota inspires agricultural activity by increasing crop production and ownership of agricultural assets such as livestock. The combination of impacts thus improved the overall resiliency of households to manage and cope with shocks, an important goal of the programme.

Yet another side to this story is about the limitation of the programme to move households into a position where they are no longer vulnerable to shocks and food insecurity. Although the programme leads to increased food consumption, beneficiary households remain at very high levels of food insecurity, with 89% reporting that they skip meals due to lack of money and 74% reporting that there is no food in the household due to lack of money, while 60% spent the night without eating and 55% spent the entire day without eating. We also do not find any impacts on child nutritional outcomes such as stunting and underweight, although we do find small reductions in wasting. Nutritional outcomes—especially stunting—are often slow to change, meaning that the short implementation timeline could mean that these anthropometric nutrition outcomes could change over a longer timeline. However, most cash transfer programmes in sub-Saharan Africa do not demonstrate positive impacts on child nutrition, and the latest theory argues that cash transfers need to be supplemented by other nutrition-related programmes, such as education about child feeding, access to clean water, and improved sanitation, in order to have an effect on child nutrition. The programme generates inconsistent impacts to the intrahousehold dynamics with mixed positive and negative impacts, both at low levels (3 percentage points).

Overall, it appears that the programme generates a number of positive impacts across many important domains, demonstrating that the programme is implemented relatively well in a challenging environment and that beneficiaries use the transfer in meaningful and successful ways. The research team has some concern about the ability of the study to accurately identify impacts and attribute them to the programme. This study is a non-experimental design that relies on PSM techniques to identify a comparison group to serve as the counterfactual. The research team does not have baseline measures for the comparison group, thus we can match only treatment and comparison households on observed characteristics at endline that are not affected by the programme such as age, gender, caregivers' education level, and family size. Other factors may exist that are not measured or quite possibly observed that could affect the outcomes of interest, yet are not related to the cash transfer programme such as knowledge of farming or



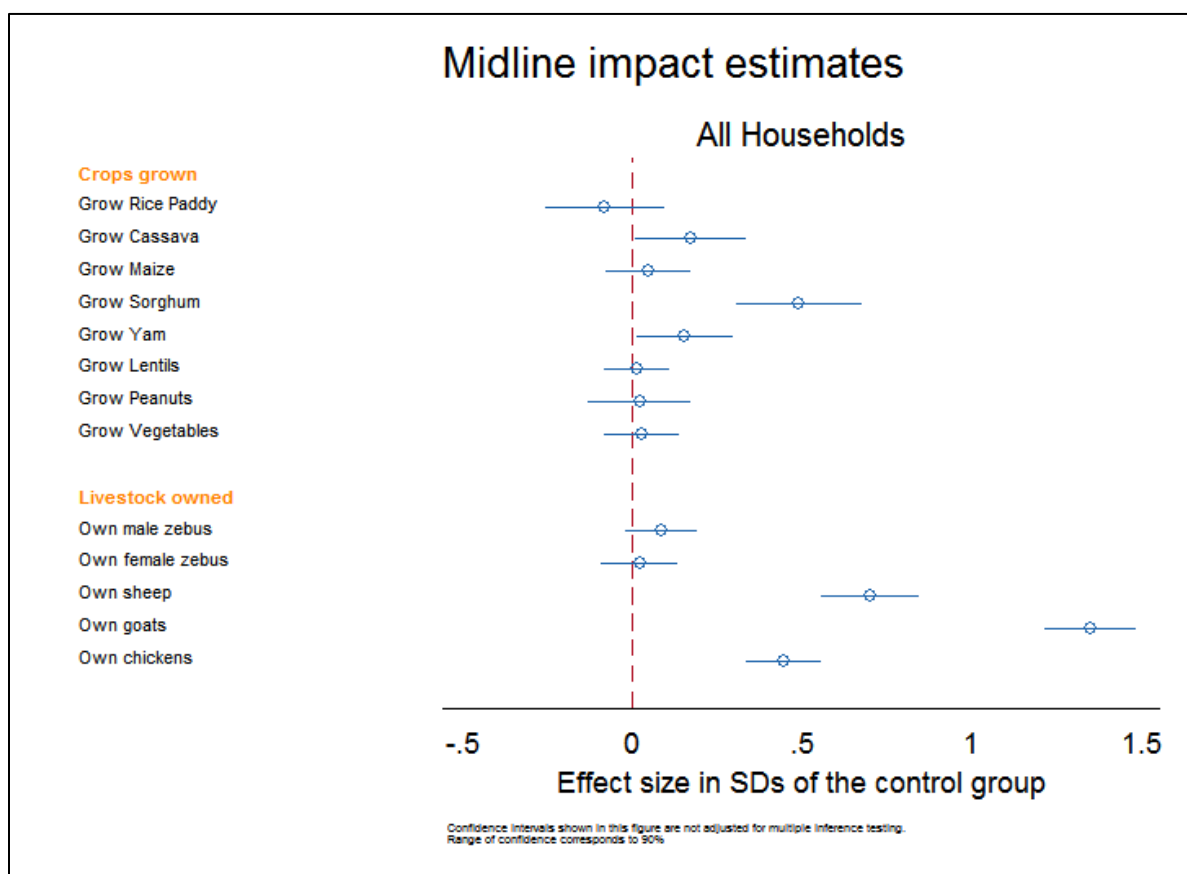
motivation to produce. Systematic differences might have existed between the two groups before the programme started that we cannot account for because they are outcomes of interest. For example, perhaps the treatment group was healthier before the programme started or lived on more fertile land and thus produced more. The fact that we find consistent impacts across so many different domains and that our matching process created very strong matches challenges the idea that one missing variable explains everything. Instead, there likely would have to be many missing variables for different domains, making this scenario less likely, yet we cannot rule it out from this study design.

## 9.1. Results on programme objectives

This programme had six objectives mentioned in the introduction. We review these objectives here and discuss how the evaluation fared in meeting them. For each set of domains, we discuss the impacts on key outcomes then present a graph summarizing the impacts. For each outcome, the open circle provides the best estimate of the true impact. There is a horizontal line extending in both directions showing the range of impact estimates that may also be the true impact. If the range of the possible impact values does not overlap with the line representing zero, then we conclude the program had an impact on that outcome.

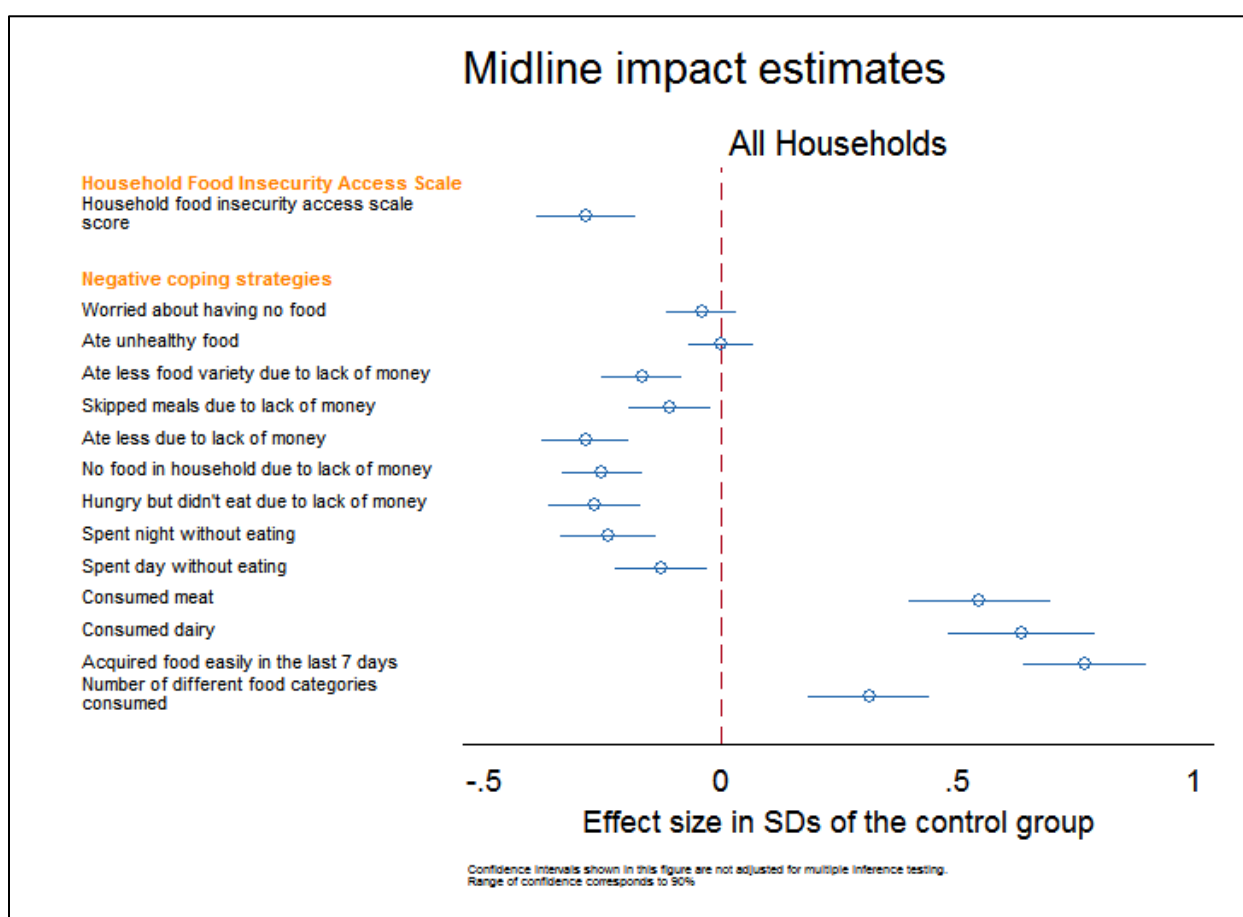
1. **Immediate livelihood effects:** The programme demonstrates impacts on production such as increased crops and great livestock ownership, as shown in Figure 15. These results showed in both the intensive and extensive margins, leading to greater livelihood.

**Figure 15: Midline Impact Estimates of Crops Grown and Livestock Owned, All Households**



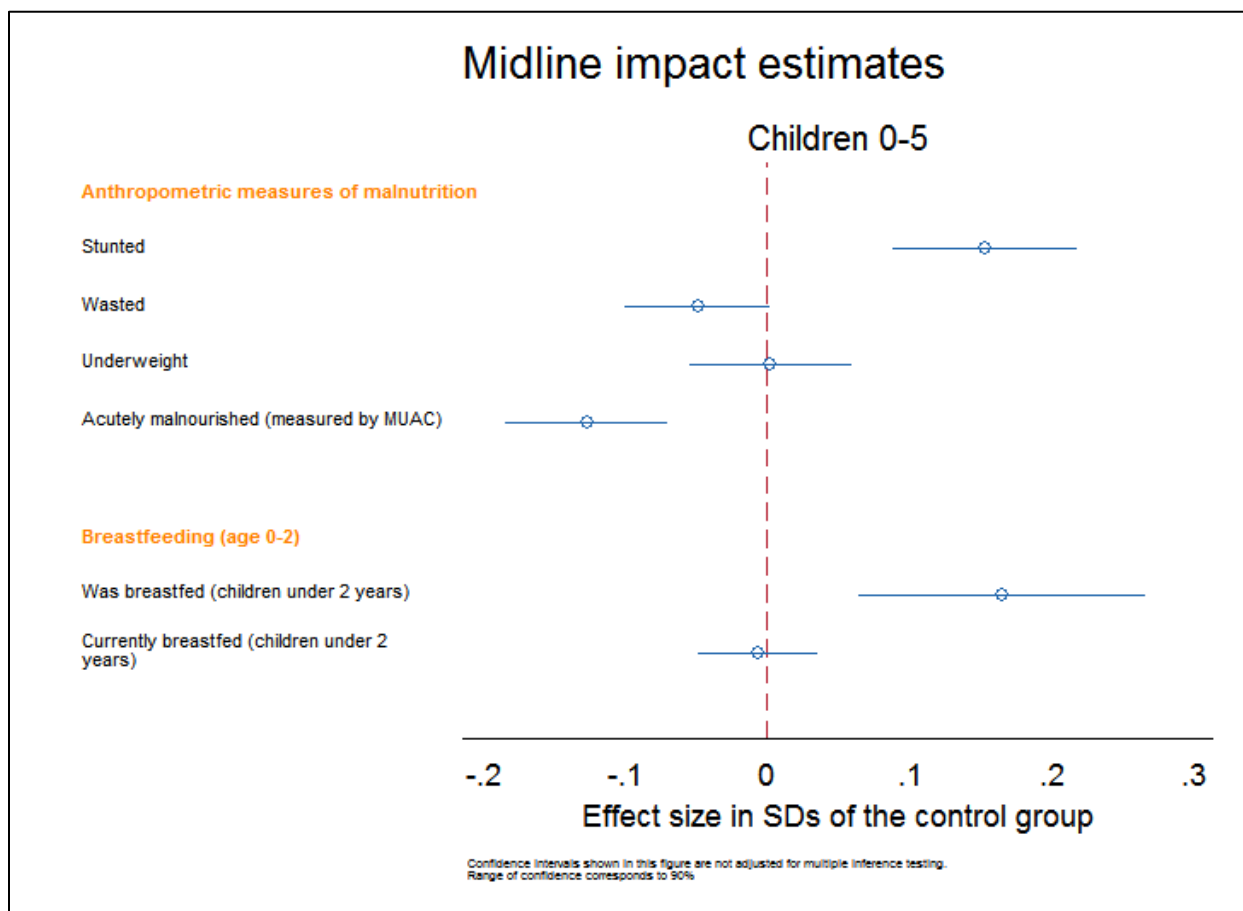
2. **Immediate nutrition effects for children and food security for households:** We find impacts on the amount of food consumed and increased household diet diversity with impacts on meat, dairy, lentils and peanuts, as showing in Figure 16; we cannot identify individual members' consumption, so we are limited in describing intra-household food sharing patterns. We also find greater food security at the household level. However, the programme does not demonstrate impacts on all young child nutritional outcomes. We do find the programme caused a small reduction in wasting but did not detect impacts on stunting and underweight, potentially due to its short implementation timeline. Conversely,. Wasting is more responsive the short term than stunting because stunting is a cumulative deficit.

**Figure 16: Midline Impact Estimates of Household Food Insecurity Access Scale Score and Negative Coping Strategies, All Households**

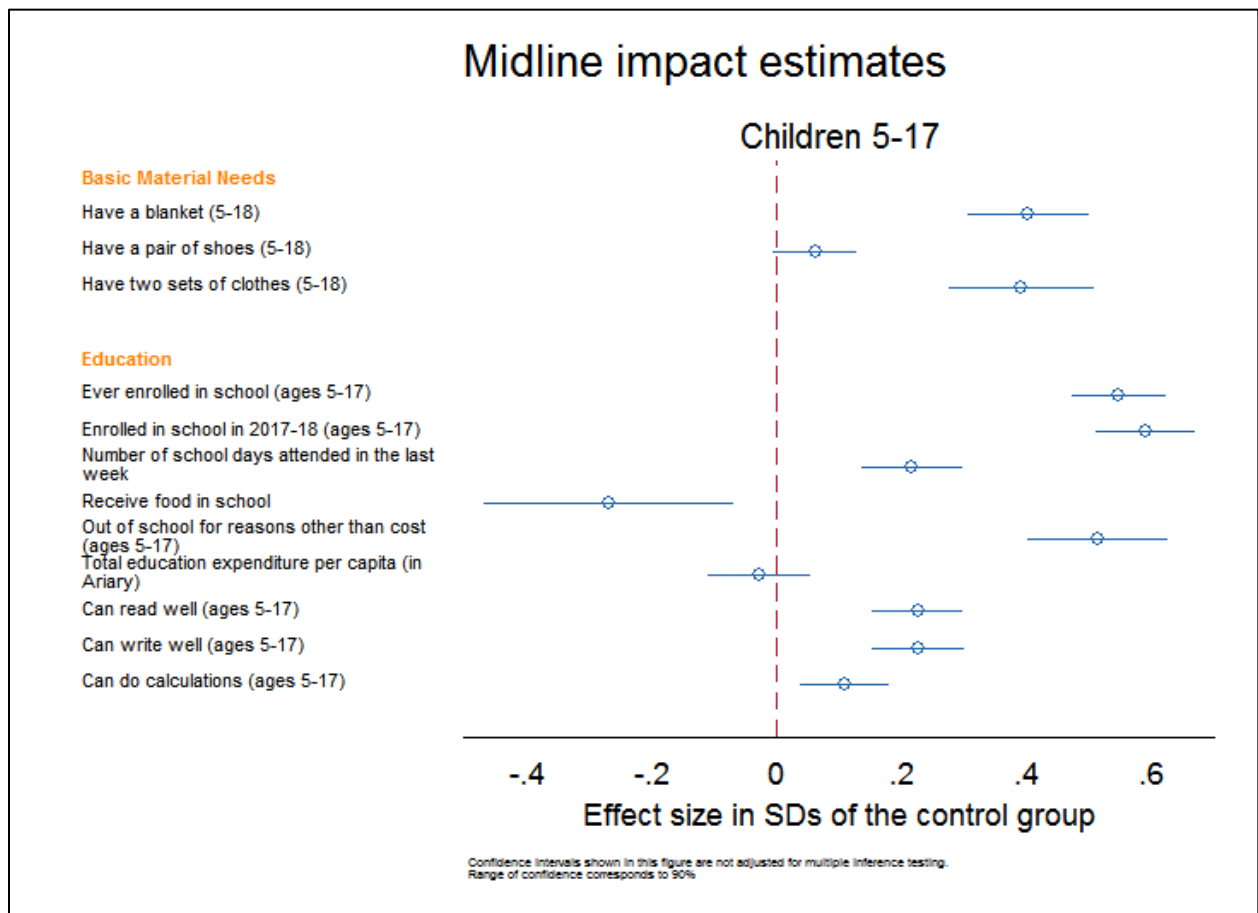


3. **Broader effects on children's lives:** The cash transfer programme generates effects on other important areas of children's lives such as increased school enrolment and attendance, increased use of health services, and improved material well-being (see Figures 17 and 18).

**Figure 17: Midline Impact Estimates of Anthropometric Measures of Malnutrition and Breastfeeding, Children 0–5**

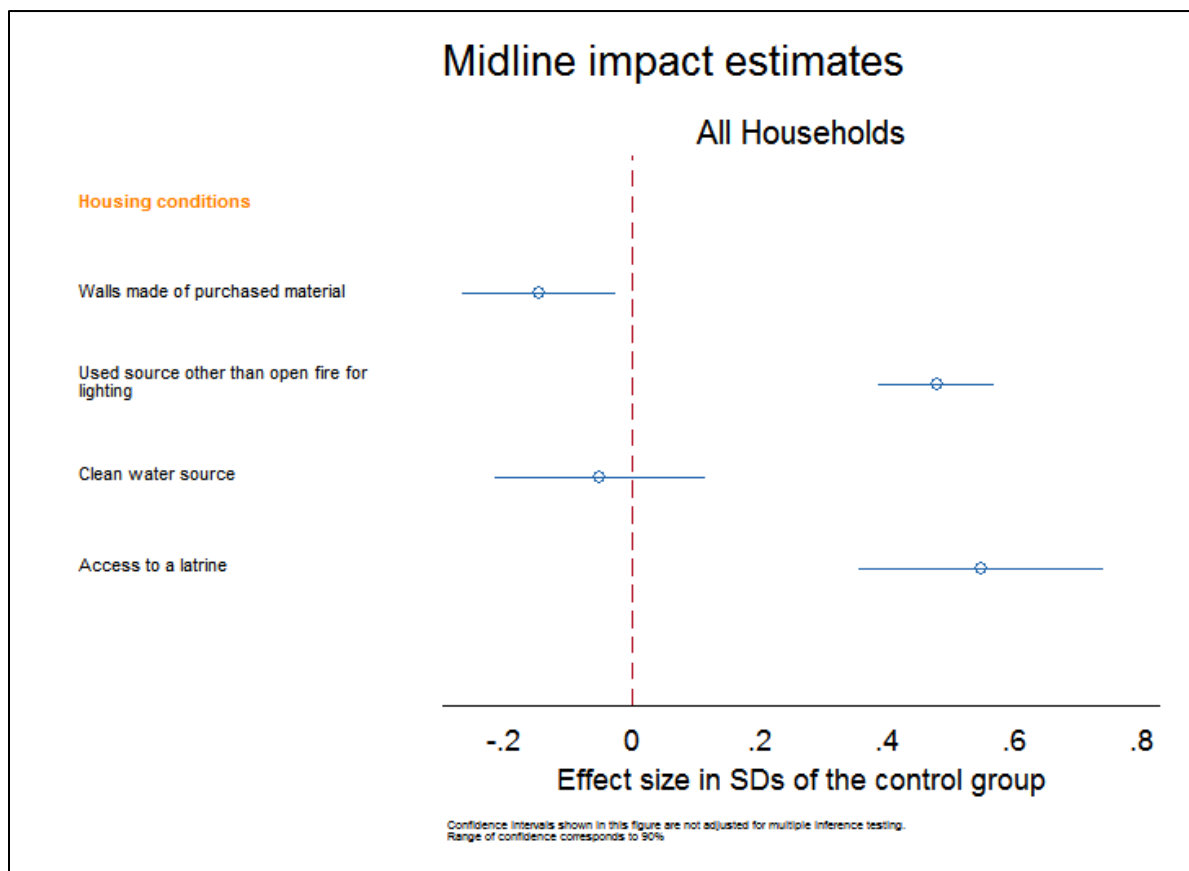


**Figure 18: Midline Impact Estimates of Basic Material Needs and Education, Children 5–17**



4. **Broader effects on households:** At the household level, the transfer provided to households leads to increased consumption for food and non-food items, improved housing conditions with great access to latrines, and better access to health services for adults (see Figure 19).

**Figure 19: Midline Impact Estimates of Housing Conditions, All Households**



5. **Mediators and heterogeneity:** We investigate to see if the Fiavota transfer impacts specific subgroups in different ways and do not find any differences between impacts on female and male children. Unfortunately we cannot test for differences by initial nutritional status because we do not have that information for the comparison group at baseline.
6. **Programme performance:** We investigate the effectiveness of the programme and find that it is implemented fairly well with households receiving their transfer without having to travel a long time or incur costs. However, there is room to improve the complaint mechanism and many beneficiary households misunderstand the eligibility criteria for the programme, the payment frequency, how long the programme lasts, and who provides the funds.

## 9.2. Recommendations

This study is an impact evaluation with primary objectives to provide evidence on the effectiveness of the programme that can both feed into broader policy discussions and global learning, and not necessarily to provide recommendations about programme implementation. However, the authors generated several recommendations based on the results of the study. We provide a mix of recommendations about the programme design, implementation, and future research suggestions. The recommendations primarily target implementers and policymakers who decide the programme's goals.

1. The Fiavota programme had two components in Phase 1, a recovery fund transfer paid in a lump sum to encourage investment in productive assets and a recurring bimonthly transfer. The programme demonstrates large impacts on productivity, especially on livestock ownership, signifying that the recovery fund lump sum transfer worked as intended. We recommend maintaining this component of the programme for future beneficiaries as they initially enrol in the programme as it seems to provide a good jump start toward building resiliency.
2. Although we did not find programme impacts on young child nutritional outcomes, the evidence suggests that food consumption and access to healthcare rose. This result is common among many child-targeted cash transfers in sub-Saharan Africa. We recommend linking the programme with other services and programmes that also may affect child nutrition to leverage a multidimensional approach to child nutrition. Such services and programmes include improving access to clean water sources, education about water and sanitation practices, and counselling about optimal adolescent, maternal, infant, and young child feeding practices.
3. When investigating the operational performance of the programme, as described in more detail below, we learned that recipients of the programme may have misunderstood key aspects that might affect their behaviour. For example, recipients did not understand clearly why they were eligible to receive the programme and what the selection criteria are. Similarly, they may have falsely believed that the programme could end abruptly or that they may not know when they will receive their next payment, affecting their spending behaviour. We recommend clear communication about the programme to the community and beneficiaries that may improve programme operations for how people use the transfers.
4. Our last recommendation relates to the study design. This study did not include baseline measures for the comparison group. The evaluation team were not part of the baseline study and thus could not address this concern when baseline was conducted. The lack of baseline measures for the comparison group meant that the study could not establish baseline equivalence between the treatment and comparison groups to demonstrate that they started at the same place. It also prevents the evaluation team from using a longitudinal analysis that controls for factors affecting outcomes over time unrelated to the programme. For these reasons, best practice is considered to include both the treatment and comparison groups in a baseline measure of an evaluation study, and we recommend future studies to follow these best practices.

### 9.3. Lessons learnt

The Fiavota programme provides several important lessons that stakeholders can apply to future humanitarian crises in Madagascar and other developing countries. We summarize the three primary lessons that we can draw from this evaluation.

1. The Fiavota cash transfer and nutrition support programme demonstrates that aid can be mobilized quickly to address an environmental crisis. The government of Madagascar declared a state of emergency in early 2016 and the Fiavota programme was underway by December 2016. It is important that the programme was reaching beneficiaries in less than a year because they would have otherwise been coping with the effects of the drought on their own. In that scenario, they may have used some of the negative coping strategies described in this report. The rapid deployment of humanitarian aid shows that it is possible to address acute needs in a relatively short timeframe.
2. The Fiavota programme shows that it is easier to address food insecurity than the nutritional deficits that food insecurity can cause. The report's findings show that the transfer improved households' access to food and reduced the frequency of households using negative coping strategies for food consumption. While the transfer reduced wasting and malnutrition measured by MUAC, there were no impacts on stunting and underweight. These findings illustrate that it remains more difficult to address the anthropometric measures of children's malnutrition.
3. The Fiavota programme demonstrates that beneficiaries often struggle to understand how and why they are eligible for a cash transfer. Even though households were eligible just by registering at the nutrition clinic, beneficiaries often did not understand why they received the transfer. Even though implementers communicated the transfer date before each disbursement, beneficiaries still felt confused about when they could expect the transfer. Even when implementers use a robust communications plan, beneficiaries often confuse the purpose and process of a cash transfer.

The lessons learnt from this evaluation of the Fiavota programme apply to many interventions. Practitioners working in other contexts and working with other goals can still learn from this evaluation. The three lessons above show examples of conditions that could apply to programmes in other contexts and with other goals.

## Appendix A: References

- Alinovi L., D’Errico M., Main E. and Romano D. (2010), Livelihoods strategies and households resilience to food security: An empirical analysis to Kenya.
- Antilahy, H. E. Rollande. (2017). Final Evaluation report: Madagascar Food Security Project. retrieved: <http://adore.ifrc.org/Download.aspx?FileId=179213&.pdf>
- Baird, S., de Hoop, J., & Özler, B. (2013). Income shocks and adolescent mental health. *Journal of Human Resources*, 48(2), 370–403.
- Baird, S., Ferreira, F.H.G., Özler, B., & Woolcock, M. (2014). Conditional, unconditional and everything in between: A systematic review of the effects of cash transfer programs on schooling outcomes. *Journal of Development Effectiveness*, 6(1), 1–43.
- Bastagli, F. Hagen-Zanker, J., Harman, L., Sturge, G., Barca, V., Schmidt, T., & Pellerano, L. (2016). Cash transfers: What does the evidence say? A rigorous review of impacts and the role of design and implementation features. London, UK: Overseas Development Institute.
- Bengtsson, N. (2012). The marginal propensity to earn and consume out of unearned income: Evidence using an unusually large cash grant reform. *The Scandinavian Journal of Economics*, 114(4), 1393–1413. doi:10.1111/j.1467-9442.2012.01726.x
- Bhalla, G., Handa, S., Angeles, G., & Seidenfeld, D. (2018). The effect of cash transfers and household vulnerability on food security in Zimbabwe. *Food Policy* (74):82–99.
- Blattman, C., Fiala, N., & Martinez, S. (2013). Generating skilled self-employment in developing countries: Experimental evidence from Uganda. *Quarterly Journal of Economics*.
- Bonilla, J., Castro, R., Handa, S., Nowlin, C., Peterman, A., Ring, H., & D. Seidenfeld on behalf of the CGP Evaluation Team (2017). Cash for women’s empowerment? A mixed methods evaluation of the Zambian Child Grant Program. *World Development* 95:55–72.
- Brandstetter, R. H. (2004). Evaluation of OFDA cash for relief intervention in Ethiopia. Report Prepared for USAID/OFDA. Washington, DC: Checchi and Company Consulting/Louise Berger Joint Venture.
- Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Hopewell, NJ: Houghton Mifflin.
- Catholic Relief Services (CRS). (2014). Using cash for shelter. Case study: Project Daijok (“Helping Each Other”). <http://www.cashlearning.org/downloads/9phili.pdf>
- Case, A. (2004). Does money protect health status? Evidence from South African pensions. In D. A. Wise (Ed.), *Perspectives on the economics of aging* (pp. 287–311). Chicago, IL: University of Chicago Press.



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de Groot, R., Palermo, T., Handa, S., Ragno, L. P., & Peterman, A. (2017). Cash Transfers and Child Nutrition: Pathways and Impacts. *Dev Policy Rev*, 35:621–643.  
<https://doi.org/10.1111/dpr.12255>

de Hoop, J., Morey, M., Ring, H., Rothbard, R., & Seidenfeld, D. (2018). Evaluation of No Lost Generation/"Min Ila", a UNICEF and WFP Cash Transfer Program for Displaced Syrian Children in Lebanon: Endline Report. Washington, United States: American Institutes for Research.

de Hoop J., & Rosati, F. C. (2014). Cash transfers and child labor. *World Bank Research Observer*, 29(2), 202–234.

Di Liberto, T. (2016). A not so rainy season: Drought in southern Africa in January 2016. Silver Spring, MD: National Oceanic and Atmospheric Administration.

Fisher, E., Attah, R., Barca, V., O'Brien, C., Brook, S., Holland, J., . . . Pozarny, P. . (2017). The livelihood impacts of cash transfers in Sub-Saharan Africa: Beneficiary perspectives from six countries. *World Development*. Retrieved from  
<http://dx.doi.org/10.1016/j.worlddev.2017.05.020>

Fiszbein, A., & Schady, N. R. (2009). Conditional cash transfers: Reducing present and future poverty. Washington, DC: World Bank Publications.

Gertler, P. (2004). Do conditional cash transfers improve child health? Evidence from PROGRESA's control randomized experiment. *The American Economic Review*, 94(2), 336–341.

Handa, S., Natali, L., Seidenfeld, D., Tembo, G., & Davis, B. (2018). Can unconditional cash transfers raise long-term living standards? Evidence from Zambia. *Journal of Development Economics*, 133, 42–65. Retrieved from  
<https://www.sciencedirect.com/science/article/pii/S0304387818300105>

Handa, S., Peterman, A., Seidenfeld, D., & Tembo, G. (2016). Income transfers and maternal health: Evidence from a national randomized social cash transfer program in Zambia. *Health Economics*, 25(2), 225–236.

Haushofer, J., & Shapiro, J. (2013). Household response to income changes: Evidence from an unconditional cash transfer programme in Kenya. Cambridge, MA: Massachusetts Institute of Technology. Retrieved from  
[http://www.princeton.edu/~joha/publications/Haushofer\\_Shapiro\\_UCT\\_2013.pdf](http://www.princeton.edu/~joha/publications/Haushofer_Shapiro_UCT_2013.pdf)

Heltberg, R. (2007). Helping South Asia cope better with natural disasters: The role of social protection, *Development Policy Review*, Vol. 25:No. 6, 681–698.

- Hedlund, K., Maxwell, D., & Nicholson, N. (2012). Final evaluation of the unconditional cash and voucher response. UNICEF Report.
- Hidrobo, M., Peterman, A., & Heise, L. (2015). The effect of cash, vouchers, and food transfers on intimate partner violence: Evidence from a randomized experiment in Northern Ecuador. *American Economic Journal of Applied Economics*, 8(3), 284–303. <https://doi.org/10.1257/app.20150048>
- Hirvonen, K., Bossuyt, A., & Pigois, R. (2017). Complementarities between social protection and health sector policies: Evidence from productive safety net program in Ethiopia. (IFPRI Strategy Support Program Working Paper 112). Washington, DC: International Food Policy Research Institute, and Addis Ababa, Ethiopia: Ethiopian Development Research Institute. Retrieved from <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/131446/filename/131657.pdf>
- Huang, C., Singh, K., Handa, S., Halpern, C., Pettifor, A., & Thirumurthy H. (2017). in children's health and the Kenyan cash transfer for orphans and vulnerable children: evidence from an unconditional cash transfer scheme. *Health Policy and Planning*, 32(7), 945–955. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/28431108>
- Jovanovic, V. (2017). The impact of cash transfers on resilience: A multi-country study. CARE International UK.
- Karim, A. (2016). 6 Things to Know About the Drought in Southern Madagascar. World Food Program USA. Retrieved from <https://wfpusa.org/articles/5-things-to-know-about-the-drought-in-southern-madagascar>
- Kilburn, K., Thirumurthy, H., Tucker Halpern, C., Petitfor, A. & Sudhanshu, H. (2014). Effects of a large-scale unconditional cash transfer program on mental health outcomes of young people in Kenya: A cluster randomized trial. Chapel Hill, NC: University of North Carolina at Chapel Hill.
- Madagascar. (2018, May 11). Retrieved from <https://www.unocha.org/southern-and-eastern-africa-rosea/madagascar>
- Maluccio, J. A. (2010). The impact of conditional cash transfers on consumption and investment in Nicaragua. *The Journal of Development Studies* 46(1), 14–38.
- Miller, C., Tsoka, M., & Reichert, K. (2008). Impact evaluation report. External evaluation of the mchinji social cash transfer pilot. Retrieved from [https://www.unicef.org/malawi/MLW\\_resources\\_impactsocialcashtrf.pdf](https://www.unicef.org/malawi/MLW_resources_impactsocialcashtrf.pdf).
- Patel, L., & Hochfeld, T. (2011). It buys food but does it change gender relations? Child Support Grants in Soweto, South Africa, *Gender & Development*, 19(2), 229–240.
- Prifti, E., Estruch, E., Daidone, S., Davis, B., Van Ufford, P., Michelo, S., & Tembo, G. (2017). Learning about labour impacts of cash transfers in Zambia, *Journal of African Economies*, 26(4), 433–442. <https://doi.org/10.1093/jae/ejx005>

- Resilience Alliance. 2002. Key concepts (available at [http://www.resalliance.org/index.php/key\\_concepts](http://www.resalliance.org/index.php/key_concepts)). DFID. 2011. Defining disaster resilience: a DFID approach paper. London (available at <https://www.gov.uk/government/publications/defining-disaster-resilience-a-dfidapproach-paper>).
- Food Security Information Network (FSIN) 2014 “Resilience Measurement Principles”, FSIN Technical Series No.1, January 2014. Saavedra, J. E., & Garcia, S., (2012). Impacts of conditional cash transfers on educational outcomes in developing countries: A meta-analysis. (RAND Working Paper 921-1). Santa Monica, CA: RAND Corporation. Retrieved from [https://www.rand.org/content/dam/rand/pubs/working\\_papers/2012/RAND\\_WR921-1.pdf](https://www.rand.org/content/dam/rand/pubs/working_papers/2012/RAND_WR921-1.pdf)
- Soares, F. V., & Teixeira, C. (2010). Impact evaluation of the expansion of the food subsidy programme in Mozambique. IPC-UNDP research brief. Retrieved from <http://www.ipc-undp.org/pub/IPCPolicyResearchBrief17.pdf>.
- Taaffe, J., Longosz, A. F., Wilson, D. (2017). The impact of cash transfers on livelihoods, education, health and HIV—what’s the evidence? *Dev Policy Rev*, 35, 601–619. <https://doi-org.proxy.binghamton.edu/10.1111/dpr.12253>
- UNICEF. (2010). Core commitments for children in humanitarian action. UNICEF.
- UNICEF Madagascar. (2017). Madagascar Nutrition Investment Case. Retrieved from [https://www.unicef.org/madagascar/fr/Nutrition\\_Investment\\_Case\\_Madagascar\\_\(2016\).pdf](https://www.unicef.org/madagascar/fr/Nutrition_Investment_Case_Madagascar_(2016).pdf)
- Veras Soares, F., Perez Ribas, R., & Issamu Hirata, G. (2010). Impact evaluation of a rural conditional cash transfer programme on outcomes beyond health and education. *Journal of Development Effectiveness*, 2(1), 138–157.
- White, H. (2009). Theory-based impact evaluation: Principles and practice. *Journal of development effectiveness*, 1(3), 271–284.
- World Bank (2015). The state of social safety nets 2015. Retrieved from <http://documents.worldbank.org.proxy.binghamton.edu/curated/en/415491467994645020/The-state-of-social-safety-nets-201>

## Appendix B: Locations of Evaluation Participants

Figure B.1: Map of study respondents' locations

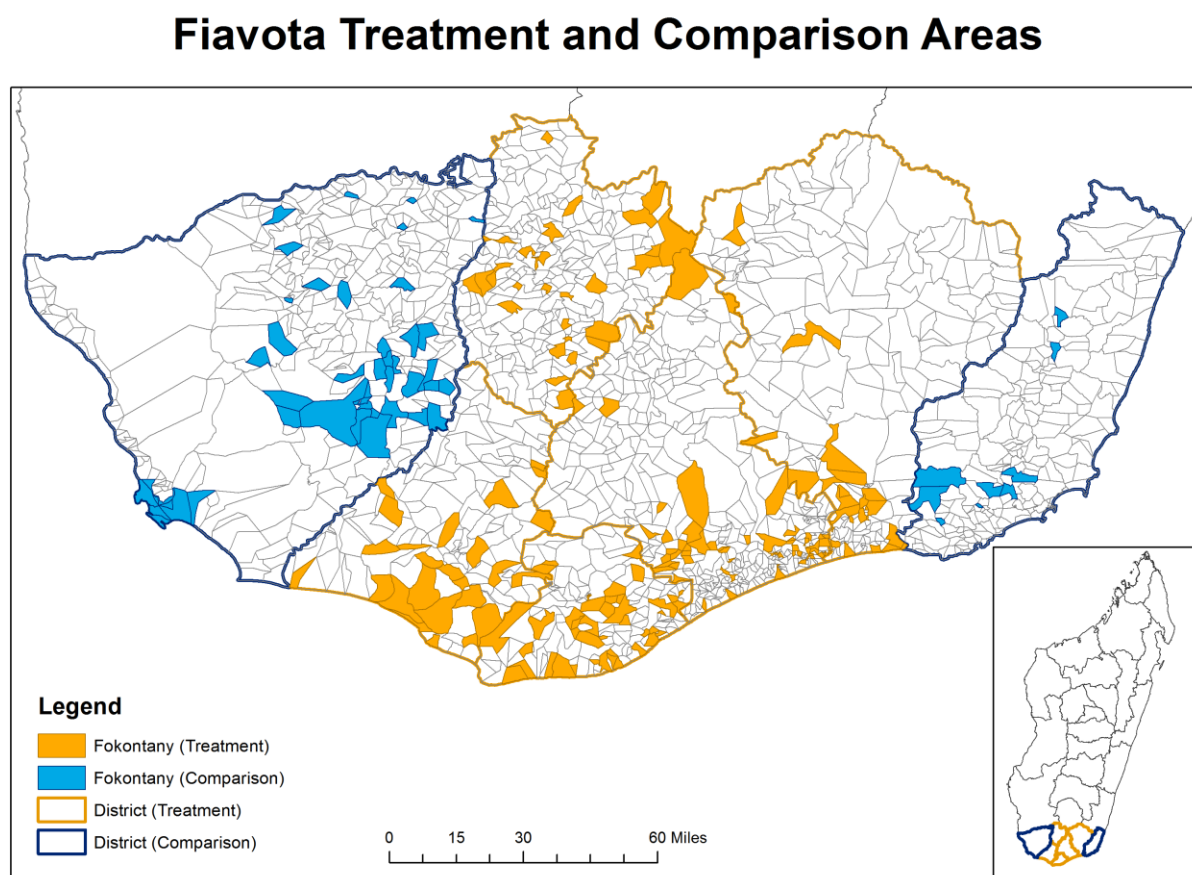


Table B.1: Population by District

	# of Individuals	# of Households
<b>Treatment</b>		
Amboasary Atsimo	3,565	535
Ambovombe	6,250	852
Bekily	2,176	314
Beloha	3,043	473
Tsihombe	6,060	802
<b>Comparison</b>		
Amphanihy	14,145	2,275
Tolagnaro	571	106
<b>Total</b>	<b>35,810</b>	<b>5,357</b>

## Appendix C: Differential Effects

### Girls

This appendix presents the results of the test for whether boys and girls experience the transfer in a different way. For example, boys would receive larger nutritional benefits if parents think it is more important for their sons to eat than their daughters to eat. In the tables that follow, the “Differential effect size” column provides an estimate of the effect for girls relative to the effect for boys. Then, we present the mean and sample size for matched boys and the mean and sample size for matched girls. In this case, we only present results for child-level impacts. We do not present results for adult-level impacts because a household outcome does not vary across gender, because the majority of households have both males and females in them.

The methodology is nearly identical to the estimation technique described in the Evaluation Design section. The approach uses the same matching technique to determine which children are appropriate for analysis. Then the estimate the equation:

$$Outcome_{hc} = \phi + \alpha_1 \cdot Fiav_{hc} \cdot Female_{hc} + \alpha_2 \cdot Fiav_{hc} + \alpha_3 \cdot Female_{hc} + \beta_1 \cdot C_{hc} + \beta_2 \cdot H_h + \varepsilon_{hc}$$

For this equation, we use the same techniques as for the primary estimation. The key test for a differential impact is provided by the value and significance of  $\alpha_1$ , which is the differential effect of gender.

**Table C.1: Phase 1 PSM Regression Results—Child Welfare, differential impact by gender**

Variables	Differential effect size	Treatment Boys Mean	Treatment Boys N	Treatment Girls Mean	Treatment Girls N
Have a blanket (5–18)	0.01	0.16	2512	0.17	2416
Have a pair of shoes (5–18)	0.00	0.03	2512	0.03	2416
Have two sets of clothes (5–18)	-0.01	0.64	2512	0.69	2416
Stunted	0.02	0.45	1263	0.39	1272
Wasted	0.01	0.12	1244	0.07	1289
Underweight	-0.01	0.29	1261	0.22	1274
Acutely Malnourished (MUAC)	0.02	0.16	1254	0.12	1283

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.2: Phase 1 PSM Regression Results—Health, differential impact by gender**

Variables	Differential effect size	Treatment Boys Mean	Treatment Boys N	Treatment Girls Mean	Treatment Girls N
Received vaccinations (children <5 years old)	0.88	1516	0.89	1477	0.88
Healthy over the last 2 weeks	0.84	5548	0.80	5935	0.84
Visited health centre	0.62	1113	0.62	1440	0.62
Total healthcare expenditure (in Ariary)	48428.95	494	31138.21	636	48428.95

Skipped treatment due to reason other than costs	0.40	486	0.38	631	0.40
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Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.3: Phase 1 PSM Regression Results—Education, differential impact by gender**

Variables	Differential effect size	Treatment Boys Mean	Treatment Boys N	Treatment Girls Mean	Treatment Girls N
Ever enrolled in school (ages 5–17)	0.74	2471	0.86	2247	0.74
Enrolled in school in 2017–18 (ages 5–17)	0.66	2549	0.80	2168	0.66
Number of school days attended in the last week	4.65	1136	4.68	1672	4.65
How often missed school in last 4 weeks	0.34	1198	0.30	1610	0.34
Receive food in school	0.57	1198	0.55	1610	0.57
Out of school for reasons other than cost (ages 5–17)	0.45	1090	0.45	659	0.45
Can read well (ages 5–17)	0.14	2311	0.24	2406	0.14
Can write well (ages 5–17)	0.14	2311	0.24	2406	0.14
Can do calculations (ages 5–17)	0.28	2416	0.37	2300	0.28
Total education expenditure per capita (in Ariary)	9736.57	950	13892.75	1512	9736.57

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.4: Phase 1 PSM Regression Results—Labour, differential impact by gender**

Variables	Differential effect size	Treatment Boys Mean	Treatment Boys N	Treatment Girls Mean	Treatment Girls N
Did no labour in the last 7 days (5–17)	0.00	0.87	2666	0.95	2046
Did not work for reasons other than illness (ages 5–17)	0.00***	0.00	351	0.00	138

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

## Large households

This appendix presents results similar to gender but focuses on the differential impacts for large households. Having many members may make a household more vulnerable because resources are stretched across more members.

In this case, we estimate the equation:

$$Outcome_{hc} = \phi + \alpha_1 \cdot Fiav_{hc} \cdot Large_{hc} + \alpha_2 \cdot Fiav_{hc} + \alpha_3 \cdot Large_{hc} + \beta_1 \cdot C_{hc} + \beta_2 \cdot H_h + \varepsilon_{hc}$$

In this case,  $\alpha_1$  again gives the differential effect of household size.

**Table C.5: Phase 1 PSM Regression Results—Child Welfare, differential impact by gender**

Variables	Differential impact size	Treatment Small HH Mean	Treatment Small HH N	Treatment Large HH Mean	Treatment Large HH N
Have a blanket (5–18)	0.00	0.18	699	0.15	2698
Have a pair of shoes (5–18)	-0.01	0.05	699	0.03	2698
Have two sets of clothes (5–18)	0.03	0.74	699	0.65	2698
Stunted	-0.01	0.45	690	0.43	1142
Wasted	0.00	0.08	662	0.09	1163
Underweight	0.00	0.26	699	0.27	1149
Acutely Malnourished (MUAC)	-0.01	0.13	681	0.13	1170

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.6: Phase 1 PSM Regression Results—Health, differential impact by gender**

Variables	Differential impact size	Treatment Small HH Mean	Treatment Small HH N	Treatment Large HH Mean	Treatment Large HH N
Received vaccinations (children <5 years old)	0.00	0.92	814	0.89	1353
Healthy over the last 2 weeks	0.01	0.76	2332	0.83	5671
Visited health centre	0.06	0.68	652	0.68	1252
Total healthcare expenditure (in Ariary)	18,753.97**	32999.44	356	44516.84	570
Skipped treatment due to reason other than costs	-0.08	0.44	220	0.39	480

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.7: Phase 1 PSM Regression Results—Education, differential impact by gender**

Variables	Differential impact size	Treatment Small HH Mean	Treatment Small HH N	Treatment Large HH Mean	Treatment Large HH N
Ever enrolled in school (ages 5–17)	-0.03	0.86	557	0.81	2695
Enrolled in school in 2017–18 (ages 5–17)	-0.02	0.80	562	0.72	2678
Number of school days attended in the last week	0.07	4.65	518	4.67	1439
How often missed school in last 4 weeks	0.07	0.25	516	0.29	1452
Receive food in school	0.03	0.45	516	0.54	1452
Out of school for reasons other than cost (ages 5–17)	0.01	0.50	129	0.49	1036
Can read well (ages 5–17)	0.00	0.16	568	0.22	2664
Can write well (ages 5–17)	0.00	0.16	568	0.22	2664
Can do calculations (ages 5–17)	0.00	0.26	565	0.34	2661
Total education expenditure per capita (in Ariary)	3,327.26	10096.18	313	13445.27	1387

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.

**Table C.8: Phase 1 PSM Regression Results—Labour, differential impact by gender**

Variables	Differential impact size	Treatment Small HH Mean	Treatment Small HH N	Treatment Large HH Mean	Treatment Large HH N
Did no labour in the last 7 days (5–17)	-0.01	0.93	547	0.89	2679
Did not work for reasons other than illness (ages 5–17)	0.00***	0.00	39	0.00	327

Note: Standard errors clustered at the fokontany level.  $p < 0.10$  \*,  $p < 0.05$  \*\*,  $p < 0.01$  \*\*\*.



## Female headed households

This appendix presents results similar differential impacts for female headed households. Female-headed households are likely to be vulnerable because they may not have

In this case, we estimate the equation:

$$Outcome_{hc} = \phi + \alpha_1 \cdot Fiav_{hc} \cdot Large_{hc} + \alpha_2 \cdot Fiav_{hc} + \alpha_3 \cdot Large_{hc} + \beta_1 \cdot C_{hc} + \beta_2 \cdot H_h + \varepsilon_{hc}$$

In this case,  $\alpha_1$  again gives the differential effect of having a female head of household.

**Table C.1: Phase 1 PSM Regression Results—Child Welfare, differential impact by gender**

Variables	Differential impact size	Treatment Female Headed Mean	Treatment Boys N	Treatment Female Headed Mean	Treatment Girls N
Have a blanket (5–18)	0.01	0.17	3226	0.17	1702
Have a pair of shoes (5–18)	-0.01	0.03	3226	0.03	1702
Have two sets of clothes (5–18)	-0.05	0.66	3226	0.67	1702
Stunted	0.00	0.41	1682	0.43	853
Wasted	-0.03*	0.10	1686	0.07	847
Underweight	-0.04	0.25	1670	0.26	865
Acutely Malnourished (MUAC)	-0.05**	0.14	1677	0.13	860

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.2: Phase 1 PSM Regression Results—Health, differential impact by gender**

Variables	Differential impact size	Treatment Female Headed Mean	Treatment Boys N	Treatment Female Headed Mean	Treatment Girls N
Received vaccinations (children <5 years old)	-0.03	0.88	1972	0.89	1021
Healthy over the last 2 weeks	0.01	0.83	7771	0.82	3712
Visited health centre	0.03	0.61	1741	0.63	812
Total healthcare expenditure (in Ariary)	-22,847.58**	44914.62	732	27898.75	398
Skipped treatment due to reason other than costs	0.04	0.40	792	0.37	325

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.3: Phase 1 PSM Regression Results—Education, differential impact by gender**

Variables	Differential impact size	Treatment Female Headed Mean	Treatment Boys N	Treatment Female Headed Mean	Treatment Girls N
Ever enrolled in school (ages 5–17)	0.08**	0.80	3111	0.81	1607
Enrolled in school in 2017–18 (ages 5–17)	0.08***	0.71	3115	0.75	1602

Number of school days attended in the last week	-0.29***	4.70	1730	4.68	1078
How often missed school in last 4 weeks	0.03	0.29	1716	0.33	1092
Receive food in school	0.01	0.61	1716	0.52	1092
Out of school for reasons other than cost (ages 5–17)	-0.01	0.47	1235	0.40	514
Can read well (ages 5–17)	0.01	0.18	3074	0.20	1643
Can write well (ages 5–17)	0.01	0.18	3074	0.20	1643
Can do calculations (ages 5–17)	0.00	0.32	3098	0.34	1618
Total education expenditure per capita (in Ariary)	-843.05	11325.65	1535	12703.70	927

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

**Table C.4: Phase 1 PSM Regression Results—Labour, differential impact by gender**

Variables	Differential impact size	Treatment Female Headed Mean	Treatment Boys N	Treatment Female Headed Mean	Treatment Girls N
Did no labour in the last 7 days (5–17)	0.04**	0.90	3090	0.92	1622
Did not work for reasons other than illness (ages 5–17)	0.00***	0.00	337	0.00	152

Note: Standard errors clustered at the fokontany level. p<0.10 \*, p<0.05 \*\*, p<0.01 \*\*\*.

## Appendix D: Evaluation Matrix

Question	Source
<b>How relevant was the response for households affected by the drought/humanitarian situation?</b>	
	<ul style="list-style-type: none"> <li>• Operational Performance               <ul style="list-style-type: none"> <li>– Understanding of programme</li> <li>– Targeting</li> <li>– Payment systems</li> <li>– Challenges to accessing payments</li> <li>– Perceptions of beneficiary duties</li> <li>– Individual transfer recipient/user</li> </ul> </li> </ul>
<b>To what extent was the programme aligned to policies and strategies in Madagascar?</b>	
	<ul style="list-style-type: none"> <li>• Project documents (Administrative)</li> <li>• Ministry documents (Administrative)</li> </ul>
<b>To what extent was the programme aligned to UNICEF's country office programmes in Madagascar?</b>	
	<ul style="list-style-type: none"> <li>• Project documents (Administrative)</li> <li>• County office documents (Administrative)</li> </ul>
<b>How did beneficiaries transition from the unconditional to the conditional programme?</b>	
	<ul style="list-style-type: none"> <li>• Operational Performance (Survey)               <ul style="list-style-type: none"> <li>– Payment systems</li> <li>– Challenges to accessing payments</li> </ul> </li> <li>• All key outcomes (Survey)               <ul style="list-style-type: none"> <li>– Household impacts</li> </ul> </li> </ul>
<b>Were the planned objectives and outcomes of the project achieved?</b>	
	<ul style="list-style-type: none"> <li>• Project documents (Administrative)</li> <li>• All key outcomes (Survey)               <ul style="list-style-type: none"> <li>– Household impacts</li> <li>– Child impacts</li> </ul> </li> </ul>
<b>Have there been any differentiated effects with regard to gender of children?</b>	
	<ul style="list-style-type: none"> <li>• All key outcomes (Survey)               <ul style="list-style-type: none"> <li>– Household impacts</li> <li>– Child impacts</li> </ul> </li> </ul>
<b>What are the effects of the programme on child nutrition?</b>	
	<ul style="list-style-type: none"> <li>• Nutrition and Health (Survey)               <ul style="list-style-type: none"> <li>– Stunting (measured by height for age)</li> <li>– Wasting or acute malnutrition (measured by weight for height or MUAC)</li> <li>– Underweight (measured by weight for age)</li> <li>– Food security</li> </ul> </li> </ul>
<b>What are the effects of the programme on women and intrahousehold allocation/decisionmaking?</b>	
	<ul style="list-style-type: none"> <li>• Demography (Survey)               <ul style="list-style-type: none"> <li>– Family structure, composition</li> </ul> </li> <li>• Gender-Based Violence (Survey)               <ul style="list-style-type: none"> <li>– Signs of an aggressive spouse</li> </ul> </li> </ul>

Question	Source
<b>How has the livelihoods grant impacted the productivity at the household level?</b>	
	<ul style="list-style-type: none"> <li>• Economic (Survey) <ul style="list-style-type: none"> <li>– Small-asset accumulation</li> <li>– Livestock ownership</li> <li>– Entrepreneurial activity</li> <li>– Propensity to save</li> </ul> </li> </ul>
<b>What has been the impact of the programme on livelihoods, consumption, production, savings, and revenues?</b>	
	<ul style="list-style-type: none"> <li>• Economic (Survey) <ul style="list-style-type: none"> <li>– Small-asset accumulation</li> <li>– Livestock ownership</li> <li>– Entrepreneurial activity</li> <li>– Propensity to save</li> </ul> </li> <li>• Consumption (Survey) <ul style="list-style-type: none"> <li>– Non-food item consumption</li> <li>– Food consumption</li> <li>– Services consumption</li> </ul> </li> <li>• Agriculture (Survey) <ul style="list-style-type: none"> <li>– Land and crop cultivation</li> <li>– Crop sales</li> </ul> </li> <li>• Labour (Survey) <ul style="list-style-type: none"> <li>– Labour activities (for pay and not for pay)</li> <li>– Labour income</li> </ul> </li> </ul>
<b>Was the programme's communication strategy pertinent and effective?</b>	
	<ul style="list-style-type: none"> <li>• Operational Performance (Survey) <ul style="list-style-type: none"> <li>– Understanding of programme</li> <li>– Targeting</li> <li>– Payment systems</li> <li>– Challenges to accessing payments</li> <li>– Perceptions of beneficiary duties</li> <li>– Individual transfer recipient/user</li> </ul> </li> </ul>
<b>What are the effects/impacts of the programme(s) on outcomes for children (nutrition, education, child labour, and general well-being)?</b>	
	<ul style="list-style-type: none"> <li>• Education (Survey) <ul style="list-style-type: none"> <li>– Absenteeism (attendance)</li> <li>– Enrolment</li> <li>– On-time entry</li> <li>– Progression/repetition</li> <li>– School expenses</li> </ul> </li> <li>• Child Welfare (Survey) <ul style="list-style-type: none"> <li>– Pre- and postnatal care</li> <li>– Feeding practices (time, types of foods)</li> <li>– Breastfeeding</li> <li>– Sickness (diarrhoea, malaria, other)</li> </ul> </li> </ul>

Question	Source
	<ul style="list-style-type: none"> <li>• Child Protection (Survey) <ul style="list-style-type: none"> <li>– Access to services</li> <li>– Meeting basic material needs</li> </ul> </li> <li>• Nutrition and Health (Survey) <ul style="list-style-type: none"> <li>– Stunting (measured by height for age)</li> <li>– Wasting or acute malnutrition (measured by weight for height or MUAC)</li> <li>– Underweight (measured by weight for age)</li> <li>– Vaccinations received</li> </ul> </li> </ul>
<b>How have the cash programme and its components improved the capacity of poor families to build resilience and recover from the drought?</b>	
	<ul style="list-style-type: none"> <li>• Resilience (Survey) <ul style="list-style-type: none"> <li>– Shocks suffered</li> </ul> </li> <li>• Food Security (Survey) <ul style="list-style-type: none"> <li>– Food consumed</li> <li>– HFIAS (FAO)</li> </ul> </li> </ul>
<b>What are unpredicted impacts—positive or negative—at the household and community levels?</b>	
	<ul style="list-style-type: none"> <li>• Operational Performance (Survey) <ul style="list-style-type: none"> <li>– Challenges to accessing payments</li> <li>– Perceptions of beneficiary duties</li> <li>– Individual transfer recipient/user</li> </ul> </li> <li>• All key outcomes (Survey) <ul style="list-style-type: none"> <li>– Household impacts</li> <li>– Child impacts</li> </ul> </li> </ul>

## Appendix E: PSM Technical Discussion

The purpose of PSM is to assign programme beneficiaries to non-beneficiaries who possess the same characteristics but do not experience the treatment. Because they possess the same characteristics, the beneficiaries essentially received the treatment rather than the comparison by chance. This allows for a counterfactual observation, where we can effectively observe the outcome for the beneficiary under both policies requiring only a simple comparison.

To do this, we will exploit the observable characteristics of the beneficiaries to construct a probability that a household was a Phase 1 beneficiary. For example, if we are interested in the difference in food security for Treatment households as opposed to Comparison households, we would first estimate the probability that the beneficiary receives the treatment (transfer during Emergency Response) using a probit model such as:

$$T_i = \Phi(X_i \cdot \beta' + \varepsilon_i)$$

where  $T_i$  is a dummy for having received their transfer,  $X_i$  is a vector of individual and household characteristics,  $\Phi$  is the Cumulative Distribution Function (CDF) of the standard normal distribution, and  $\varepsilon_i$  is an uncorrelated error term. Then we could generate propensity scores,  $P_i$ , the probability of receiving treatment, using the formula

$$P_i = \Phi(X_i \cdot \hat{\beta}')$$

We use the propensity score to improve our analysis by restricting the sample. The propensity score matches the treatment beneficiaries to a comparison beneficiary with a sufficiently similar propensity score. This method excludes observations of households outside the common support from our analysis. These households include comparison households for which we cannot encounter a beneficiary household with a similar propensity score. We use nearest neighbour matching without replacement and with a caliper of 0.01 to identify households within the common support. Nearest neighbour matching is a process wherein each treatment observation is matched to the comparison observation with the closest propensity score within 0.01. After an observation is matched, it is removed from the matching pool and is retained for later analysis.

The variables used in the PSM model accurately predicted the beneficiaries' receipt of a transfer. The matching outcomes consistently predict treatment status. Here, we discuss children's stunting as an example, but the findings are typical of and apply to other outcomes as well. All but one of the variables used in the probit model are statistically significantly related to having received the transfer. Table E.1 presents the results. These estimates demonstrate that the variables used in the matching process have predictive power. This conclusion suggests that the PSM process can accurately construct a counterfactual group.

**Table E.1: Propensity Score Matching**

Dependent Variable	PSM Point Estimate
Age	0.11***
Female	-0.04
Total # of household members	0.13***
Adult in household attended school	0.67***
# of children 0–5 years old	-0.15***
# of children 0–5 years old	-0.08***
N	7,292

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

The matching process was effective at eliminating observations that are unlike those in the other group. This finding means that there were many comparison households who were completely unlike treatment households. This finding also means that the treatment and comparison samples were different before matching and nearly identical after the matching process. Table E.2 shows that the matched sample does not differ along observable dimensions. On the other hand, the unmatched sample is very different along observable dimensions. It is important to note that it is not possible to test whether the matched sample differs along unobservable characteristics.

**Table E.2: Balance Test for Matched and Unmatched Sample**

Criteria	t-stat	Treatment Mean	Treatment N	Comparison Mean	Comparison N
<b>Matched</b>					
Age in years	0.63	2.67	2535	2.69	2535
Female	-0.65	0.50	2535	0.49	2535
Total household size	0.08	6.82	2535	6.83	2535
Household has adult who attended school	0.88	0.58	2535	0.59	2535
# of children 0–5 years old	-0.36	2.37	2535	2.36	2535
# of children 6–12 years old	0.00	1.75	2535	1.75	2535
<b>Unmatched</b>					
Age in years	-19.63	3.20	1158	2.28	1095
Female	3.15	0.48	1158	0.55	1095
Total household size	-27.49	9.58	1158	5.87	1095
Household has adult who attended school	-168.86	0.97	1154	0.01	1068
# of children 0–5 years old	-0.40	2.52	1158	2.50	1095
# of children 6–12 years old	-17.03	2.48	1158	1.41	1095

Using the match derived from PSM should improve our ability to obtain unbiased estimates of the programme relative to standard linear regression techniques. Nevertheless, one practical limitation for this study, when implanting the PSM procedure, is that we have only a few exogenous variables available (i.e., age, gender, household makeup, adult education) that could be used to predict the probability of being in the treatment group. The broad possible impacts of a cash transfer mean that most domains could change because of the transfer. Using few observable variables in the PSM process resulted in a larger unmatched sample.

## Appendix F: Terms of Reference

For every child  
Health, Education, Equality, Protection  
ADVANCE HUMANITY



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UNICEF Madagascar

### TERMES DE REFERENCE EVALUTATION

Project title: Evaluation of FIAVOTA Emergency Cash Transfer Programme  
Location: Antananarivo – Madagascar/work remotely  
Period: September 2017- December 2019  
Contract type: LTA/consultancy  
Published: September 2017

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#### 1. Context

Madagascar is one of the poorest and most fragile countries in the world. 81.8% of the population lives on less than US\$1.90 per day. The population is very young with 48.7% of the 24 million inhabitants under 18 years of age. Madagascar has the second worst rates of nutrition in the East and Southern Africa region for children under five: 36.8% of children are underweight and 49.2% suffer from stunting.

Madagascar's recurrent political crisis in the last decade has greatly affected the country's development and deteriorated standards of living. Its impacts are felt almost in all areas: political, socio-economic, and cultural and security, damaging the legal, social norms and cultural values and thereby contributing to the extreme impoverishment of the population. UNICEF-Madagascar has been actively working with national partners and donors to improve the situation of the poorest girls and boys and in 2015, by technical support from UNICEF and the World Bank, the Government approved the **National Social Protection Policy with the aim to reduce vulnerability of families**.

UNICEF has partnered with the World Bank and Government of Madagascar to support the design and scaling up of social protection interventions to improve the situation of the poorest and most vulnerable families. In mid-2016, the first national cash transfer program, TMDH<sup>1</sup>, was launched in five of Madagascar's 22 regions (including one in the south). It targets 38,000 of the poorest families with under-5 and primary school-age children.

Madagascar's « Grand Sud<sup>2</sup> » houses a population of 1.6 million people. It is in an ongoing cycle of humanitarian emergency. The region is extremely dry and only receives on average 500mm of rain per year. Several evaluations conducted between March and April 2015 confirmed the severity of the drought. Screening of 196,271 children (over 80% of the children in the South) showed that the number of children under five requiring nutritional support had doubled from an estimation in early 2015. The progressive worsening of the situation has been noted since October 2015 with the onset of El Nino, which caused a drastic deficit in rainfall which continued to affect all districts in the South until February 2016. Crop planting in the off-season in June 2015 and the main planting in October and November both failed.

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<sup>1</sup> Transfert Monétaire pour le Développement Humain TMDH – Cash Transfer for Human Development

<sup>2</sup> Made up of the regions of Androy, Anosy and Atsimo Andrefana, of seven districts and 104 communes



In October 2016 a humanitarian response plan was put into place by the government in partnership with the Humanitarian Team. It targeted 850,000 people in need of humanitarian assistance including 221,400 children. One element of the multi-sectoral response was Cash Transfer.

UNICEF's and the World Bank's FIAVOTA cash transfer programme's specific objectives are 1) to combat the ongoing worsening of the state of child malnutrition through a combination of cash and nutrition; 2) to enable a rapid recovery of the population. According to the 2017 baseline study, 83.3% of the registered beneficiaries live from agriculture (compared to 76.8% nationwide). The households targeted have a dependency rate of 170% (compared to 120% for the South and 97.8% nationwide). 54.1% of the population have poor nutrition (compared to 9.1% nationwide). And the rate of Global Acute Malnutrition among children is 9.7% compared 6.9% nationwide.

The program provides cash transfers, livelihood recovery grants and nutrition services to the poorest households in the most drought-affected communities of the regions of Androy and Anosy<sup>3</sup>. It reaches 68,000 of the poorest households (of which 58,000 in the first year) in five out of eight districts covered by humanitarian assistance. Households are chosen via a process of targeted selection<sup>4</sup>, focusing on mothers with children under five.

The first year of the project refers to an emergency response and second and third year to an early recovery phase. The Figure 1 below, shows the transition from emergency response to early recovery and mitigation through safety net and nutrition services<sup>5</sup>. Financial support for the program is provided by the World Bank (about 35 million US\$) and UNICEF (about 5 million US\$).

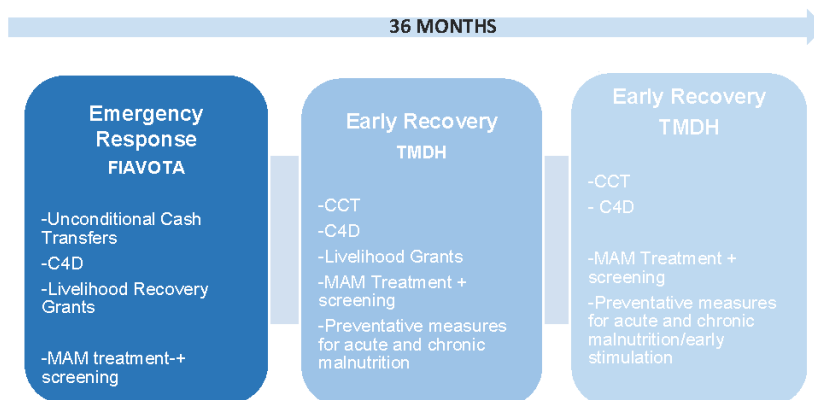
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<sup>3</sup> A UNICEF nutritional assessment was used for the geographical targeting of drought-affected communes/districts with the highest rates of child malnutrition. Mothers with children under five were registered by using community nutrition site registers. A livelihoods grant complements the cash transfer to enable families to undertake small-scale income-generating activities. In addition, the program is complemented by accompanying measures and a communication for development strategy.

<sup>4</sup> The targeting is geographically based using well defined criteria: classification of communes according to degree of malnutrition, existence of operative SEECALINE sites (treatment centres), security and accessibility criteria and geographic location. The list of beneficiaries has been conceived so as to be integrated into a computer database.

<sup>5</sup> IDA-WB. 2016. Proposed credit/grant from the crisis response window for the social safety net project.

Figure 1: From Emergency Response to Early Recovery



The program is coordinated by the Ministry of Population, Social Protection and Women (MPPSPF), and implemented by FID (Fonds d'intervention pour le Développement) with local CSO and service providers. The FID has a regional and district-level presence and collaborates with various offices, "socio-organizers" and transfer agencies for the implementation of the programme.

## 2. Purpose, Objectives and scope of Evaluation

After a year of implementation, the program has reached 56,614 families out of 58,000 targeted and will soon shift to a conditional cash mode (CCT) as planned. A joint formative evaluation is planned to assess its performance, analyze any necessary adjustment and improve social protection programs in general.

The first user of the Evaluation is MPPSPF, which coordinates all social programs and actions. The results will help in **designing social protection mechanisms in general and responses to emergencies in particular**. Another direct user of the evaluation is the FID, which need a broader coverage of the monitoring system. In this way, the results of the formative evaluation should enable FID **to assess progress more accurately in relation to results and then make possible operational adjustments to the different aspects of the program**.

For UNICEF and World Bank, as a formative evaluation, results will have a **learning rather than an accountability purpose**. At the end of Evaluation, the Government of Madagascar, UNICEF, the World Bank and partners should have an improved understanding of how the Emergency and Early Response Cash Programs impacted households, women, their children, the local economy, and communities.

More specifically, the following questions should at least be answered by the mid-term and the final evaluation<sup>6</sup>:

Criteria	Questions
Relevance and coherence	<ul style="list-style-type: none"> <li>• How relevant was the response for households affected by the drought/humanitarian situation?</li> <li>• How relevant was the program in meeting local government/leaders' needs and priorities?</li> <li>• To what extent was the program aligned to policies and strategies in Madagascar?</li> <li>• To what extent was the program aligned to UNICEF's country office programmes in Madagascar?</li> <li>• How well did it coordinate with other cash transfer programmes?</li> <li>• How did beneficiaries transition from the unconditional to the conditional programme?</li> </ul>
Effectiveness and key assumptions	<ul style="list-style-type: none"> <li>• Were the planned objectives and outcomes of the project achieved?</li> <li>• Has there been any differentiated effects with regards to gender of children?</li> <li>• What are the effects of the program on child nutrition?</li> <li>• What are the effects of the program on women and intra-household allocation/decision making?</li> <li>• How has the livelihoods grant impacted the productivity at the household level?</li> <li>• What has been the impact of the program on livelihoods, consumption, production, savings and revenues?</li> <li>• Was the programme's communication strategy pertinent and effective?</li> </ul>
Impact	<ul style="list-style-type: none"> <li>• What are the effects/impacts of the program(s) on outcomes for children (nutrition, education, child labour, and general well-being)?</li> <li>• How have the cash program and its components improved the capacity of poor families to build resilience and recover from the drought?</li> <li>• What are unpredicted impacts, positive or negative at Household and Community level?</li> </ul>

### 3. Methods

The evaluation must comply with United Nations Evaluation Group (UNEG) norms and standards. The evaluation will be a joint evaluation between UNICEF and World Bank and be based on a participatory approach. The evaluation team will be composed of two consultants (individual or a team), from UNICEF and the World Bank. An Evaluation Committee<sup>7</sup> has been set up to ensure ownership of the Evaluation and its results. The participative approach means the Evaluation Committee will play an active role at the inception phase and formulation of recommendations.

<sup>6</sup> Amendment may be required at inception phase of midterm and final evaluation

<sup>7</sup> Composed of representatives of the stakeholders (MPPSPF, FID, ONN, UNICEF, World Bank)

The evaluation is expected to use mixed methods. The quantitative part will use quasi-experimental design methods in addition to a before-and-after comparison for mid-term. An analysis of panel between mid-term and end-term for both treatment and control groups is proposed at the final evaluation. Evaluation committee is currently working on identifying this control group. Because of seasonality mid-term and final rounds must both be held in December. The qualitative part will be based on documentation, beneficiary focus groups and individual interviews with the program's stakeholders.

Monitoring data are also available in the Management Information System (MIS) developed and managed by FID. Coordination will be required with a parallel qualitative research/evaluation.

#### 4. Expected results and products

As a participative evaluation, the consultancy is expected to contribute to the design of the programme; to ensure quality assurance of the evaluation of the FIAVOTA cash transfer program; and to be responsible for the report writing within UNEG and UNICEF adapted standards of evaluation reports. It will require the following products:

1. An inception report outlining the key questions set up in a coherent Evaluation matrix, methodology for mid-term and endline to respond to it, data collection tools (questionnaires, focus group guidelines, manuals), analysis plan, detailed schedule
2. Pre-test, training and data collection reports
3. Mid-line report<sup>8</sup>
4. Endline report<sup>8</sup>

#### 5. Timeline and proposed disbursement of payments

N°	Product	Proposed timeline	% of total payment
1	Inception report	September 2017	20
2	Training and Pilot report for midterm	October – November 2017	10
3	Mid-line report and Policy note/infographic on mid-line	February 2018	30
4	Final evaluation report, presentation and Policy note/infographic on end-line	April 2019 <sup>9</sup>	40

<sup>8</sup>. Structure to be defined with UNICEF and partners, with policy notes and infographics plus PPT of main results (French and English) and presentation to stakeholders

<sup>9</sup> Idem

## 6. Dissemination

The evaluation will be disseminated nationally and internationally. The consultant/s is/are expected to do at least two presentations to the technical committee during the process of conducting the evaluation.

Based on the findings, the contractor in consultation with the technical committee will produce a short (3-5 page) policy note on program impacts on households, local economies and communities. The note will outline the main findings of the evaluation and make recommendations for the design of scale-up to achieve maximum results related to household welfare.

## 7. Supervision and ethical clearance

The consultancy is under the supervision of the Chief of Social Policy, Research and Evaluation at UNICEF Madagascar and the Evaluation Committee will technically validate deliverables and the evaluation reports. In addition, as per UNICEF Madagascar SOPs on evaluation, an internal committee (TARC) will review and provide comments.

The evaluation will need ethical clearance and must comply with UNEG and specific UNICEF's norms and ethics. During the inception phase, risks and mitigation measures should be identified and documented.

## 8. Qualifications :

### Team leader:

PhD in Public Policy, Economics or related discipline;  
At least 8 years of experience working on development and impact evaluations from which at least 5 years' experience in Sub-Saharan Africa. Experience in Madagascar is an advantage.  
At least 5 years' experience working in social protection and cash transfer programs.  
Familiarity with UNICEF's mission and social protection framework

### Team members:

One person in the team at least should be able to understand and speak fluent French and preferably knowledgeable of the Malagasy context.

Prepared by

Gaby Guerrero Serdán, Chief Social Policy, Research and Evaluation

Reviewed By

Luke Freeman, Research Coordinator

Approved by

Jean Benoit Manhes, UNICEF Madagascar Deputy Representative

## Appendix G: IRB Approval



**IRB Determination**  
Institutional Review Board  
American Institutes for Research  
1000 Thomas Jefferson Street, NW  
Washington, DC 20007  
IRB00000436 FWA00003952

**B&P Number:** 87424  
**Project number:**  
**Project/Proposal title:** FIAVOTA CASH TRANSFER EVA  
**Program:** Practice Area w/ Strategy  
**Project Director:** Mitchell P. Morey  
**IRB Reviewer:** Erin W. Morrison

**1. Type of Review:**

☒ Initial review

**2. After reviewing the submission, the Institutional Review Board (or member signing below) has determined the following:**

Provisional the submitted project is approved pending development of the research plan (45 CFR 46.118), which must be reviewed before enrollment of subjects or collection of data can begin. Proposed date of review: 30 days prior to the start of data collection or 10/30/18, whichever comes first.

**3. Consent Procedures**

The Institutional Review Board has determined that consent procedures:

☒ must be reviewed prior to recruitment of subjects or data collection.

**4. Individually Identifiable Information Safeguards**

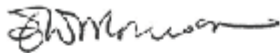
The Institutional Review Board has determined that the safeguards planned for individually identifiable information:

☒ must be reviewed prior to recruitment of subjects or data collection.

**5. Determination:**

On the basis of this initial review, the IRB has determined that the project, as described in the materials you submitted, is provisionally approved. If the client requests data gathering, development may proceed on the protocol and any recruitment/data collection instruments involved. The project director is reminded that all procedures for obtaining informed consent as well as the procedures for protecting the confidentiality of the data must be reviewed and approved prior to data gathering. This project must be resubmitted for review 30 days prior to the start of data collection or 10/30/18, whichever comes first.

**6. IRB Signature(s):**



**Erin W. Morrison, IRB Representative**  
**11/30/2017**

*Please keep in mind that any material changes made to the study or the study procedures require the submission of an updated IRB package.*



## Appendix H: Evaluation Committee Members

Below is a list of the evaluation committee members, as of November 2017.

### Representatives of FID:

- Mr Haga ALLIVENJA, Directeur de Suivi-Evaluation et du Système Informatique
- Mrs. Verohantamalala RABOANARY, Coordonnateur des Transferts Monétaires
- Mr Harivelo RAJEMISON, Statisticien

### Representatives of ONN:

- Mr RAKOTOVAO François de Paul : Responsable National Administratif et Financier UPNNC
- Mr RAKOTOARIMANITRA Wilson : Responsable Suivi et Evaluation ONN
- Mme RAKOTOMALALA Norotiana : Responsable des Opérations UPNNC

### Representatives of the World Bank:

- Mr Zo Tahiana Randrianantoandro
- Mme Valérie Rambeloson
- Mme Julia Rachel Ravelosoa

### Representatives of UNICEF:

- Dr. Ana Gabriela Guerrero Serdan, Chef de Section Politique Sociale et Evaluation
- Mr Paul Marie Petroch, Coordonnateur Protection Sociale
- Mr Ranto Ramananjato, Responsable des Données, Enquêtes et Statistiques

### Representatives of MPPSPF:

- Mrs. Irénée RAVELOJAONA, Directeur Général de la Protection Sociale (maintenant DG Landry)
- Mr Anja Hobiniaina RATOVOAMONJY, Directeur de la Sécurisation Sociale de la Population
- Mme Kiajy Nirintsoa RAMBOARIMALALA, Assistante technique chargé d'évaluation