

# SOCIAL IMPACT REPORT

Performance reporting & recommendations for Madécasse LLC:  
The impact of making chocolate in Madagascar



2017-19



wild returns



MADÉCASSE  
MADAGASCAR

1. Executive Summary .....	4
2. Introduction.....	5
2.1 Pre-amble.....	5
2.2 Impact Goals and Approach of Madécasse LLC .....	6
2.3 Highlights 2017-18.....	7
3. Method of Study .....	8
3.1 Study Area.....	8
3.2 Context & approach .....	11
3.3 Sample size summary .....	12
4. Brief Profiles .....	13
4.1 Madécasse Plantation Farm-workers .....	13
4.2 Madécasse Cooperatives: “Cooperative Kakao Fanilo” (COKAFA) and “Tsy Ampioiziko” .....	15
4.3 American Malagasy Chocolate .....	16
5. Inputs & Activities.....	16
5.1 Partnerships & capacity building.....	16
5.2 Direct Trade and Higher Prices.....	18
5.3 Making Chocolate at the Origin.....	19
5.4 Organic Farming and Biodiversity Research .....	20
6. Results .....	20
6.1 Cocoa Farmers and Communities .....	20
6.1.1 Context.....	20
6.1.2 Impacts.....	21
6.2 National Level, Madagascar.....	34
6.2.1 Context.....	34
6.2.2 Impacts.....	35
6.3 Biodiversity and Ecosystems.....	36
6.3.1 Context.....	36
6.3.2 Impacts.....	37
7. Recommendations.....	41
7.1 Ensure consistency of standards in supply chain .....	43
7.2 Work with partners on plantation management.....	43
8. Endnotes.....	46

**Photos by:** Michel Strogoff

**Report authored by:** Kate Jane England, Lalao Aigrette Ravaoarinorotsihoarana, Sitraka Andrianarinana

**Edited by:** Alia Dharssi

**Special thanks to:** Mirana Rabarivololona, Nate Engle, Chris Scarffe, employees of Madécasse and American-Malagasy Chocolate, and the people of Mangabe and Antranokarany for their support.



# 1. Executive Summary

Madécasse is a New York-based chocolate company committed to improving biodiversity and the lives of cocoa farmers in Madagascar through its business. In the 2017-2018 year, Madécasse set out to continue improving the lives of the farmers they work with, and additionally, commission a factory to produce high quality chocolate in Madagascar. This sustainability report assesses the company's progress towards its vision and also provides recommendations for how Madécasse can improve.

Madécasse produces chocolate with Direct Trade, Organic-certified, superior quality cocoa beans from one plantation owner and two farmer cooperatives in the Diana Region of northwest Madagascar. Since 2008, Madécasse has also worked with partner factories in Madagascar to produce chocolate made from cocoa grown in Madagascar. Since 2018, Madécasse has led the production of chocolate in Antananarivo, Madagascar through their jointly operated manufacturing company: American Malagasy Chocolate.

The company takes a multi-level approach to social and environmental impact. At the source of the supply chain, Madécasse works directly with cocoa farmers and a plantation owner to provide training, promote local community development initiatives, and invest in infrastructure to produce superior quality cocoa. Also, in the area where cocoa is grown, Madécasse engages in awareness raising and research with partners on wildlife and the environment. At the chocolate-making end of the supply chain, Madécasse sources many of their ingredients and supplies locally within Madagascar and directly oversees chocolate production and export.

This is the second time Madécasse has commissioned a social impact assessment of their work, the first took place in 2017 when Wild Returns conducted Madécasse first social impact assessment of cocoa production. This report aims to follow on from the previous assessment by updating the state of social impact of Madécasse's operations, while also broadening the scope of assessment to include the chocolate-making end of the supply chain.

Madécasse's Direct Trade model helps farmers and their communities by creating a better income – by paying higher prices, building local capacity for value-added cocoa products, and by upholding contracts with farmers' cooperatives, Madécasse interrupts the problem in the cocoa sector of farmers being incredibly vulnerable to fluctuations in the price of cocoa. In the cocoa growing communities we visited and from the farmers we talked to, it was clear that Madécasse's model improves the lives of farmers on several levels including:

- Improving incomes and purchasing power – farmers accrue savings, are better able to plan, and invest in assets such as cattle, land, or vehicles;
- Better access to quality education – cocoa farmers are able to cover the costs of private school for their children; and
- Better access to water and sanitation, and a related improvement in the quality of life for women and girls

There is also a heightened awareness of the environment and stewardship over forests and wildlife by cocoa growers. We believe this awareness is at least partly related to Organic practices required by Madécasse and their work with partners to monitor and protect endangered lemurs.

Along with their work in cocoa growing communities and on plantations, the establishment of American Malagasy Chocolate in Antananarivo takes Madécasse a step further in breaking the systemic inequality of global chocolate production. Normally, much of the value of cocoa is exported along with it, when chocolate is made in Europe and North America. By making chocolate in Madagascar, Madécasse has directly contributed to the creation of 14 jobs (and an expected increase to at least 20 jobs). Simultaneously, they improved the capacity for producing food-safe and high quality chocolate in the country of origin, Madagascar. This bean-to-bar approach is expected to bring a minimum of \$1.5 million USD into the country annually. This is particularly significant in Madagascar, one of the world's poorest countries where unemployment and poverty are extremely and chronically high and infrastructure and technical capacity are low.

Based upon the results of this survey, we commend Madécasse's efforts to continue in their mission to change the way chocolate is made and make a tangible difference, for endangered wildlife, and in the lives of Malagasy people. To strengthen the consistency of their efforts, further improve their supply chain, and protect endangered wildlife, we recommend two key strategies. First, we recommend that Madécasse maintain consistency in farm-gate pricing of cocoa and work with their primary partners (the SMTP group and Lalatiana Andrianarison) to uphold consistent labour standards. Secondly, we strongly recommend that Madécasse work with local partners on-the-ground to implement agro-forestry management practices to mitigate the increasing impacts of climate change and deforestation on wildlife, communities, and cocoa production.

Further detail on the methodology, findings, and recommendations generated in this study can be found in this report. This report is organized so as to first, give the reader a high-level overview of why this assessment was done; second, highlight major findings of the report; third, summarize the approach taken to the study; fourth, provide profiles of the primary stakeholders in the supply chain, fifth, give context on the efforts done by Madécasse to achieve its social and environmental aims, sixth, give the results of the study in context to regional socioeconomic and environmental factors; and finally, provide recommendations to Madécasse on how to continue and improve upon their positive impacts and reduce risks in the long-term.

Our hope is that this report serves both to communicate the positive impacts of Madécasse's work to their consumers and partners, but also contribute to their organizational learning, allowing them to reduce social and environmental risks to their business. We hope this work supports them to achieve their social and environmental goals. We believe strongly in Madécasse's vision to change the way chocolate is made, and are happy to present this report demonstrating that they, indeed, are.

## 2. Introduction

### 2.1 Pre-ambler

This report documents the social and environmental impact of trade relationships with farmer cooperatives and one plantation owner and chocolate manufacturing by Madécasse LLC (Madécasse). Madécasse is a New York-based chocolate company purchasing cocoa and making chocolate in the island nation of Madagascar, in the Western Indian Ocean and off the coast of East Africa. Madécasse aims to make chocolate in a way that improves the economic, social, and environmental benefits of chocolate to

farmers, wildlife, and the nation where the cocoa is grown. This is significant in an industry widely characterized by unfair compensation to local farmers, child labour, and poor working conditions, and in a country as insecure and poor as Madagascar.

In an effort to track and improve its impact, Madécasse first engaged Wild Returns to conduct a social impact assessment in that examined the company's social and environmental impacts. This report follows up on the previous report with a review of Madécasse's ongoing impacts, since 2017.

Wild Returns is a consulting group headquartered in Vancouver, Canada that employs a multi-disciplinary team to conduct primary monitoring and evaluation of social and environmental impact for social purpose companies. Since 2016, Wild Returns and Madécasse have partnered in order to document the impact of Madécasse's cocoa production and community development projects on cocoa-growing communities, the economy and biodiversity in Madagascar.

## 2.2 Impact Goals and Approach of Madécasse LLC

Madécasse was founded with the aim of making chocolate in a way that helps local communities in Madagascar, as well as the country as a whole. Madécasse's approach has become more targeted and effective over time. In 2015, Madécasse negotiated Direct Trade relationships with smallholder farmers and farmer cooperatives, initiated community development projects, and began implementing Organic standards. Madécasse's main stated goals are to accrue more economic benefits of chocolate to local people and within Madagascar.

More specifically, Madécasse has four social impact goals aimed at building wealth and creating jobs across the cocoa supply chain in Madagascar. First, the company aims to strengthen the local economy by creating and improving opportunities for locals to earn a steady income. Second, the company is working to create new sales outlets and markets for farmers and other actors in the chocolate supply chain. Third, the company aims to engage in skills transfer and development across the cocoa and chocolate supply chain that ensures more benefits from cocoa and chocolate production accrue to people in the country of origin. Madécasse accomplishes this by:

- Increasing the quality of raw materials and creating value-added products in Madagascar by building the capacity of local people to produce superior cocoa beans that are Direct Trade and Organic, and keeping the records necessary for upholding these certifications;
- Providing secure space for long-term volume of cocoa and chocolate in Madagascar; and
- Improving food safety compared to other chocolate factories in Madagascar.

Finally, Madécasse aims to preserve and expand habitat for endangered biodiversity and in particular, critically endangered lemurs.

Madécasse achieves its mission through a Direct Trade, Organic approach, its contracts and relationships with cocoa farmers, and special programs focused on social and environmental issues. Cocoa farmers who work with Madécasse receive:

- Long-term contracts that guarantee a higher price per kilogram of cocoa than farm-gate prices and promise a shorter-than-average time between harvest and payment; and
- Access to special initiatives to improve their farming and processing techniques, including training, infrastructure development

To their goals, Madécasse has established partnerships with local and international institutions that support local development. The company also supports ecological research on wildlife and lemurs in particular cocoa plantations and provides training to cocoa growers on Organic practices.

Finally, Madécasse works with local suppliers wherever possible and has invested in the construction of a factory in Antananarivo, Madagascar, to accrue additional benefits in the country of origin. Specifically at the national level, Madécasse:

- Sources its wrappers, packaging, and vanilla from companies headquartered and owned in Madagascar;
- Sources wrappers from a social enterprise in Antananarivo which has provided employment to vulnerable women for 27 years (Graphoprint); and
- Runs a factory in Antananarivo that presently supports 14 full-time employees and expects to hire an additional 8 people over the next 6 months.

## 2.3 Highlights 2017-18

Following on from the assessment in 2016 which showed Madécasse's significant impact on cocoa growing communities, Madécasse continues to lead by example as a Direct Trade, Organic producer of cocoa and chocolate in Madagascar. In 2019, the company became the first bean-to-bar company exporting superior quality chocolate from Madagascar to consumers in Europe and North America.

The first impact assessment commissioned by Madécasse highlighted a number of ways in which Madécasse was contributing to the welfare of the communities in which it works. For example, the higher price paid by Madécasse and stable income that selling to Madécasse provides, allows local people to have better food security, improved access to housing and furniture, and access better quality of education. The cocoa farmers that we spoke with this year also attributed the possibility of local development, including road improvements, to the stability of income provided by Madécasse. Evidence that people who sell to Madécasse are moving out of poverty is clear from the findings that more people in the communities we visited are able to save money, plan, work on projects, and have bank accounts.

Since our survey in 2016-17, some of Madécasse's impacts have increased, in particular for those people who have been members of cooperatives since 2015. These impacts include access to energy through the purchase of solar panels and being able to access better furniture and building materials for houses. Longer-term cooperative members have also acquired more assets including cattle, land, and vehicles (motorbikes, cars).

Also, the improved capacity of the farmers and farm-workers that Madécasse works with demonstrate an improved capacity to produce dry, superior cocoa. The infrastructure and training that Madécasse provides makes this possible in an area where crime is high and people struggle to get value-added products, like dry superior cocoa, to market.

Importantly, cocoa farmers informed us widely of the increasingly severe impacts of climate change and deforestation in the Sambirano Valley and its impacts on cocoa yields, wildlife, and their communities. There appears to be a heightened awareness of the environment as these threats become more impactful. Our surveys, however, also highlighted the importance of the cocoa plantations as a refuge for a multitude of threatened and endangered wildlife. A growing inventory of wildlife and trees in the plantation areas where Madécasse sources cocoa is being kept through the process of these impact assessments.

The establishment of American Malagasy Chocolate and commissioning of the associated factory has also had significant impacts in Madagascar's capital, Antananarivo, where 100 temporary jobs were created during construction, and 14 and growing (expected to be at least 20) permanent jobs have been created. When AMCHO becomes fully operational, it will represent a significant step for Madagascar's manufacturing industry and is expected to bring \$1.5 million USD into the country annually.



*Cocoa farmer collecting cocoa from drying in secure storage area, in Antranokarany, Madagascar*

## 3. Method of Study

### 3.1 Study Area

The first area of interest is Madécasse's smallholder cocoa farms, covering about 100 ha of plantations in and around the Sambirano Valley in the Ambanja District, Diana Region, northwest Madagascar (see Figure 1). This region is the primary cocoa farming area of Madagascar and home to the Sambirano River. This area is a mosaic of tropical rainforest, mixed coffee and cocoa plantations, and increasingly, rice and

other small-scale agriculture, surrounding the smallholder and mid-size plantations where the cocoa in Madécasse's chocolate is grown.

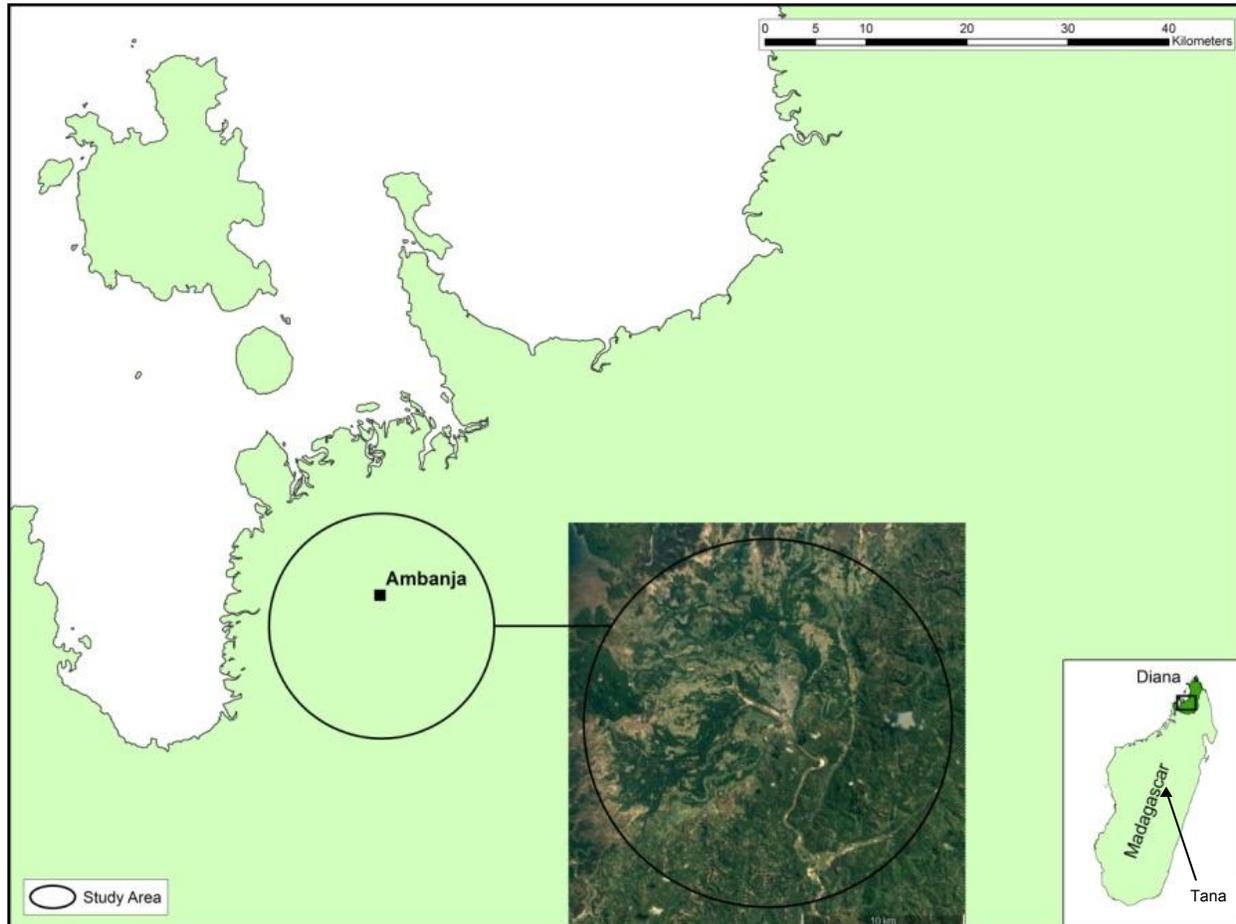


*The Sambirano River, taken from the bridge south of Ambanja, on the national highway, the RN6.*



*Forests and small-holder farmer fields on the banks of the Sambirano River*

The second area of interest is Antananarivo, the capital city, in Madagascar's central highlands, where the new American Malagasy Chocolate factory is located (shown in the bottom right of Figure 1, below).



**Figure 1.** Area of cocoa growing by small-holder farmers and cooperatives which sell cocoa beans to Madécasse LLC, in the Diana Region of Northwest Madagascar, with satellite imagery of land cover. A map of Madagascar is given for scale and to show Tana (short for Antananarivo), the capital of Madagascar, the location of the American-Malagasy Chocolate factory.

In the Diana region, where Madécasse's cocoa is grown, 42% of the population lives in poverty.<sup>i</sup> Low electrification rates impede the economic development of Madagascar, which is ranked 161 out of 190 countries in the World Bank Group's Doing Business 2018 report.<sup>ii</sup> Key challenges facing the country include low electrification rates and an underdeveloped banking system that caters to a select customer base and refrains from risky transactions, such as medium- and long-term financing.<sup>iii</sup> Consequently, most Malagasy people have limited opportunities to take out loans to build or grow businesses. Just 12% of the population have bank accounts, while the majority relies on informal means of saving money, such as investing in livestock.<sup>iv</sup> In the Ambanja region where Madécasse works, locals often purchase Zebu, a species of humped cattle, to store savings. Other challenges hindering the development of businesses include government instability, corruption, crime, theft, and roads in extreme disrepair.<sup>v</sup> Just 16% of all roads in Madagascar were paved in 2010.<sup>vi</sup>

## 3.2 Context & approach

This social impact assessment uses a multi-disciplinary approach to participatory research that draws on the social sciences, anthropological principles, ecology, and rapid, participatory research techniques. This multi-disciplinary approach was employed in order to give a holistic picture of the impacts generated by cocoa and chocolate production, while limiting resources and time expended on surveying. We use participatory action research methods in order to value the perspective and wishes of local people in measuring and creating change in their lives and communities.

This year's methodology was based on the methods and tools we used in the 2016-17 surveys. This year we made some small adjustments based on our learnings from 2016-17. These changes included ensuring that external audits did not occur around the time of our surveys and that there was no internal conflict within cooperatives, as this created a pressurized environment during previous surveys.

This year, in contrast to the 2016-17 surveys which were pre-arranged by community leaders, participants were selected from employee record books and cooperative membership records. This was done to improve the quality of data and reduce the possibility of biased selection of participants.

In addition, this year's assessment included a set of interviews with employees of American Malagasy Chocolate (AMCHO) and Madécasse, and a few suppliers of Madécasse's raw materials in Antananarivo, Madagascar. These interviews were done one-on-one on a semi-structured basis. Interviewees were selected from lists of employees and suppliers provided by Madécasse.

The interview were carried out by a Project Manager specialized in forest ecology and a Social Scientist specializing in agriculture. Both are trained in interviewing techniques that follow social science and anthropological research principals. The Social Scientist is fluent in the local dialect of Malagasy, Sakalava, which is spoken in the Ambanja region where Madécasse purchases cocoa. The Project Manager who is fluent in the 'Officiale' dialect of Malagasy, as well as English and French, performed the interviews in Antananarivo.

### 3.3 Sample size summary

Interviewers conducted participatory, informal-style (semi-structured) interviews and focus group discussions with cocoa growers, a landowner, and community members in focus groups. An interview guide, which is included as Appendix 1 to this report, was used to guide the interview process. Focus groups were separated according to age (youth, middle-aged, elders) and gender identity (men, women)<sup>vii</sup> so that respondents would feel more comfortable responding honestly than they might have if in a group with mixed ages and genders. In October 2018, the interview team carried out:

- 76 surveys with cocoa farmers around Ambanja, specifically in Antranokarany and Mangabe. These included:
  - 21 semi-structured, one-on-one interviews; and
  - 11 focus group discussions (generally 3 – 5 and up to 7 people in each group).

The following table gives a summary of the sample size for cocoa farmers who participated in this study, broken down by age and gender.

	Age		Gender
Youth	15	Men	46
Middle-aged	43	Women	30
Elder	18		

Interviewers also conducted semi-structured interviews with people involved in manufacturing and operation of the chocolate factory. An interview guide was used to facilitate conversations, and is included as Appendix 2 to this report. In December 2018 and January 2019, the Project Manager conducted:

- Informal conversations and three semi-structured interviews with Madécasse staff;
- 6 semi-structured interviews with factory workers for American Malagasy Chocolate; and
- 2 semi-structured interviews with suppliers.

By recording and creating transcripts of interviews, we were able to generate a dataset of indicators which were then summarized to create a picture of the impacts and risks according to the actors in the Madécasse supply chain.

## 4. Brief Profiles

### 4.1 Madécasse Plantation Farm-workers

Madécasse purchases cocoa from one plantation owner, Lalatiana Andrianarison, who runs a mid-sized plantation in the village of Mangabe, near Ambanja. Lalatiana employs 36 farm workers to produce Organic, superior grade cocoa which is sold exclusively to Madécasse. Throughout this report, we will refer to this plantation owner as “Lalatiana” and the employees on his plantation as “Madécasse Plantation Farm-workers”.



“I like doing social work! I would not be able to do this if I were selling my cocoa to the collector. The stability of the price with Madécasse allows me to complete social projects”

– Lalatiana Andrianarison



*At left, Lalatiana raking cocoa beans for drying in his secure storage area, and above with one of his employees checking records*

Since 2015, Lalatiana has been the sole plantation owner selling cocoa to Madécasse. Lalatiana takes a progressive approach to employing workers on his plantation – providing social benefits to his employees that are uncommon to most employers in the region. Furthermore, Lalatiana supports community development by funding and participating in local community projects.

As a result of this employment, the lives of Lalatiana’s employees have improved. One of the women who work for Lalatiana said to us, “Now, I have money to send my children to school. Since 2017, I have been able to send my children at the private school.”



*Two of the four women that work for Lalatiana, sorting cocoa beans*



*One of the young men that works for Lalatiana packing cocoa beans for transport*

## 4.2 Madécasse Cooperatives: “Cooperative Kakao Fanilo” (COKAFA) and “Tsy Ampioiziko”

Cooperative Kakao Fanilo (COKAFA) is a cocoa farmers’ cooperative that was formed in 2008 with 15 members from the community of Antranokarany. This cooperative is growing – it had 30 members in 2016 now stands at 60 members in 2019. In 2015 and 2016, the cooperative partnered with Madécasse to build wells, renovate local schools, and run a savings and loan programme for cooperative members, which continues to-date. In 2017, COKAFA opened up a bank account with Banky Fampandrosoana ny Varotra (BFV), a national bank in Madagascar which is the local entity of the French financial institution, Société Generale, which has increased their legal agency as a cooperative. In 2017 and 2018, COKAFA also funded the improvement of the roads that connect Antranokarany to the national highway, the RN6, providing better access for this remote community to markets and services in the region.



*Cooperative members sorting (and sampling) cocoa before fermentation*

During our last surveys, COKAFA was suffering from internal disputes and problems surrounding the distribution of benefits amongst cooperative leadership and members. These problems resulted in a change in leadership and governance. In late 2018, the cooperative was operating well and all internal disputes had been resolved. A positive upshot of these problems was that in April 2015, other community members who wanted to join a cooperative but feared joining COKAFA due to their conflicts, decided to start a new organization to sell their cocoa to Madécasse. With the support of Madécasse’s partners, a group of 16 cocoa producers came together in November 2016 to form Tsy Ampioiziko (translating roughly to “unexpected”). By February 2019, the new cooperative had grown to include 25 members.



*Members of the Tsy Ampioiziko Cooperative at their cocoa processing and storage facility.*

Together, these cooperatives make up what we will refer to in this report as “Madécasse Cooperatives”. Both Madécasse Cooperatives have exclusive contracts with Madécasse under which they agree to follow protocols for production of superior grade cocoa, and sell exclusively to Madécasse under a fixed term agreement.

### 4.3 American Malagasy Chocolate

American Malagasy Chocolate (AMCHO) is a joint venture owned by the Malagasy-owned Group-SMTP and jointly operated by Group-SMTP and US-based Madécasse LLC. The partnership company was started in 2017 with the express purpose of producing high quality bean-to-bar chocolate in Madagascar, create good jobs for local people, and improve food safety in the chocolate supply chain in Madagascar. The AMCHO factory was commissioned in late 2018 and the chocolate making began at the start of 2019.

## 5. Inputs & Activities

### 5.1 Partnerships & capacity building

Since 2015, Madécasse has sourced its cocoa through Direct Trade relationships with growers in 5 villages (Antranokarany, Befitiana, Ampamakia, Ambalamahonko, Mangabe) in the Ambanja District in the Sambirano Valley in Northwest Madagascar.

Madécasse buys dry superior cocoa from its cooperative and plantation partners. Dry superior cocoa undergoes a 6-day long fermentation process before being dried in the sun for 5 to 10 days. Throughout the process, strict measures are in place to control for quality. In contrast, standard cocoa is simply dried after the flesh of the cocoa fruit has been removed from the cocoa bean.

Producers need more secure infrastructure to produce dry superior cocoa, since the product has to be stored for longer before it can be sold, and theft is a serious risk. Consequently, Madécasse has been working with its partners in the Diana region to build new infrastructure for technical production of superior quality cocoa since 2017. These efforts include the construction of a cocoa warehouse in partnership with Catholic Relief Services and ongoing training for cocoa farmers and farm-workers in the production of high quality dry superior cocoa. Madécasse worked with some of its farmer suppliers in years past and invested several tens of thousands of dollars in on-farm infrastructure.

In addition, Madécasse has developed 14 partnerships and invested over US \$100,000 in local development projects since 2015, comprised of \$60,000 invested with Whole Planet Foundation, \$17,000 with Catholic Relief Services, \$20,000 with Conservation International and the Bristol Zoological Society, and about \$10,000 with Wild Returns. Local partners involved in these initiatives include COKAFA, Tsy Ampioiziko, FOFIFA and the School of Agricultural Sciences (Ecole Supérieure des Sciences Agronomiques) at the University of Antananarivo. Madécasse is also a partner of international organizations including Conservation International, the US Peace Corps, the World Bank PIC2 project, the Whole Planet Foundation, the Bristol Zoological Society, the Fine Chocolate Industry Association, Catholic Relief Services, the Clinton Global Initiative, Chocolate Wave Consulting, the Aga Khan Foundation, and Wild Returns.

The table below broadly summarizes Madécasse’s contributions to community development between 2015 and 2018, over two periods:

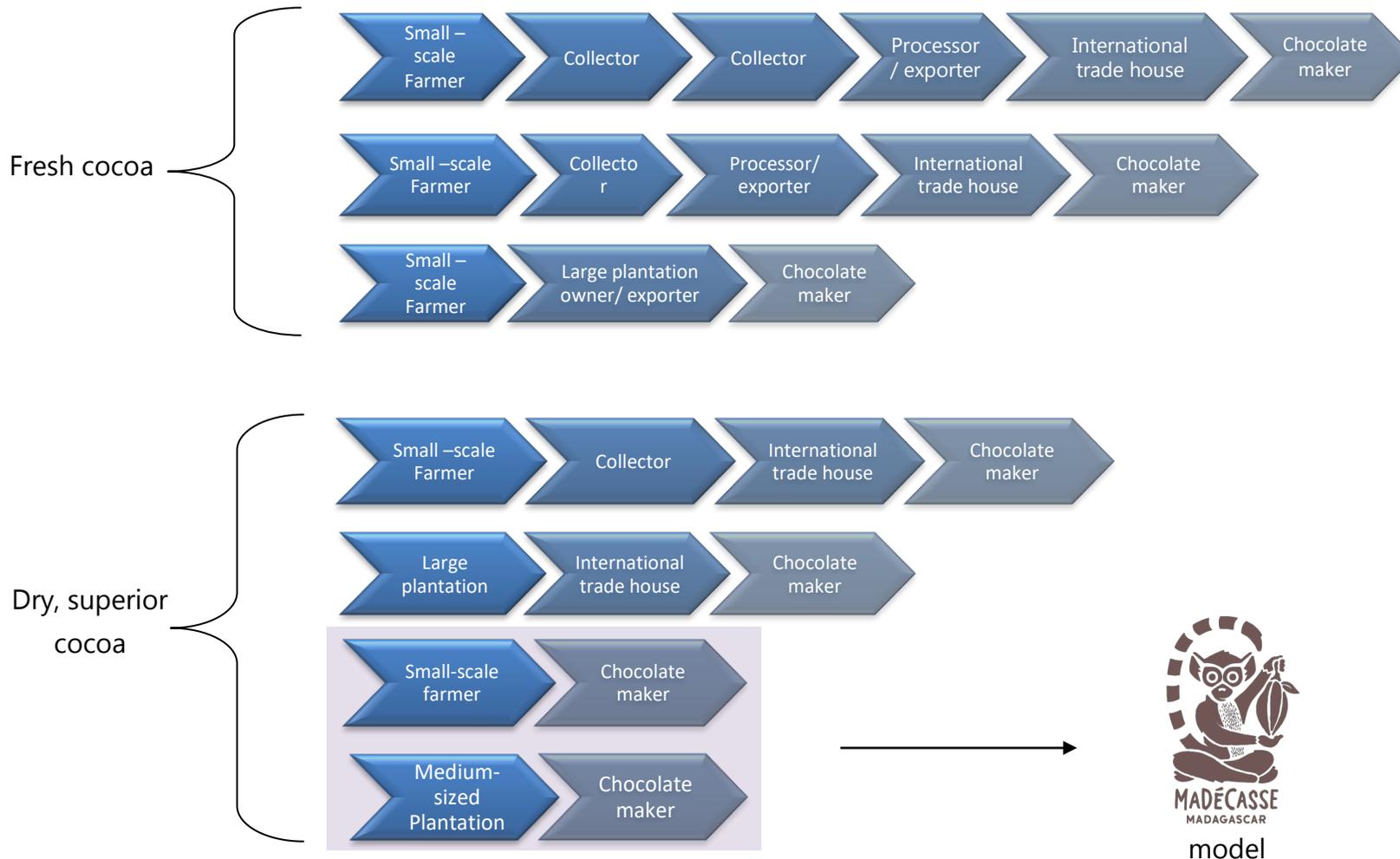
2015-16	2017-18
<ul style="list-style-type: none"> <li>• 12 new wells in Antranokarany</li> <li>• Three schools renovated</li> <li>• One new bridge from Antranokarany to the main road</li> <li>• More cocoa trees planted</li> <li>• Fruit trees provided to farmers</li> <li>• Training for more than 40 farmers in techniques for producing dry, superior cocoa</li> <li>• Equipment provided for cocoa fermentation</li> </ul>	<ul style="list-style-type: none"> <li>• Training in Organic practices</li> <li>• Equipment provided for cocoa fermentation (6 boxes, 2 sets)</li> <li>• New, additional secure storage area built for farmer cooperatives in Antranokarany</li> <li>• Cocoa seedlings provided to cooperatives</li> <li>• Supported COKAFA and Lalatiana to improve the road connecting Antranokarany and Managabe with the RN6, respectively</li> <li>• Connected cooperatives with the Agha Khan foundation to develop community savings and loans</li> <li>• Facilitated introductions of farmer cooperatives to District officials, provided education on formalizing cooperatives</li> </ul>

## 5.2 Direct Trade & Higher Prices

The Direct Trade supply chain created by Madécasse is much shorter and more simple than the average supply chain in the cocoa sector which is characterized by multiple middle actors, as illustrated in Figure 2 below.

**Figure 2.** An infographic of cocoa supply chain types in the global chocolate industry, shown for both types of cocoa produced by small-holder farmers.

### Cocoa Supply Chain Types



Madécasse has three key strategies for ensuring that the cocoa producers it works with receive a higher share of the value of cocoa production than in a traditional cocoa supply chain. Each of these strategies is embedded within Madécasse’s Direct Trade supply chain. These strategies are:

1. Provide a fixed, above-market price (higher than average price paid for dry superior cocoa) to cocoa producers in the region.
2. Provide training and equipment for dry superior cocoa production, enabling growers to produce higher quality cocoa which can be sold for a higher price than fresh (more detail on this is in the previous section).
3. Negotiate and uphold contracts and ongoing communication with cooperatives (COKAFA and Tsy Ampioiziko) and a plantation owner (Laladiana) – Each week they tell Madécasse the weight of harvest which will be ready for purchase and during this weekly communication, other matters can also be addressed.

As part of the first strategy to provide above-market pricing, Madécasse pays higher than average farm-gate prices to cocoa producers than prices paid globally. These prices are provided in the table below for comparison with Madécasse’s price for Ivory Coast and Ghana, two of the countries providing a large part of the world’s cocoa supply.

<b>Farm-Gate price of Cocoa in 2018 (USD* per kg)</b>	
Ivory Coast	\$1.30 <sup>viii</sup>
Ghana	\$1.54
Madécasse	\$2.33

\*Amounts above converted into USD on Jan 19, 2019

### 5.3 Making Chocolate at the Origin

Madécasse began producing chocolate from bean-to-bar in Madagascar in 2014, through partnership, with a factory in Antananarivo. This approach was aligned with Madécasse’s goal to contribute to the Malagasy economy. The company decided to build its own factory in Madagascar in 2016 because it wanted more direct control over the quality of its product and to deliver more benefits of their chocolate to people in Madagascar. In 2016, Madécasse began developing a partnership with the SMTP group, a professional organization aimed at improving technology, productivity and sustainability of agriculture and manufacturing in Madagascar. The two formed American Malagasy Chocolate (AMCHO) and established a new chocolate production factory in Antananarivo with over USD \$2.5 million invested between the two companies. In the meantime, from 2016 to 2018, Madécasse temporarily moved chocolate production to Italy. Production moved back to Madagascar in early 2019, when AMCHO opened its doors.

## 5.4 Organic Farming and Biodiversity Research

Producing cocoa in a way that respects the local environment is not only part of Madécasse's brand, but also a key part of the company's goals to enhance and protect habitat for endangered wildlife. To this end, Madécasse has engaged in projects to understand and document the environmental impact of its chocolate production. The company is currently working on an ongoing study of lemurs on cocoa plantations with Conservation International and the Bristol Zoological Society. The study has documented several nocturnal lemurs using cocoa plantations, which verifies farmer surveys completed by Wild Returns in 2016 and 2018 where cocoa growers mentioned the presence of several nocturnal lemurs. The presence of wildlife, including endangered lemurs, is significant because it means that cocoa plantations in the Sambirano Valley are critical refuges for threatened wildlife that exists nowhere else in the world. Wild Returns conducted surveys with farmers on behalf of Madécasse since 2016 that have resulted in an inventory of wildlife in cocoa plantations, as well as a better understanding of local perceptions of the effect of cocoa plantations on the environment and wildlife of the Sambirano Valley.

Since 2015, Madécasse has also raised environmental awareness amongst the cooperatives and plantation owner they work with, providing ongoing training on how to properly implement Organic practices and keep the necessary records to uphold certification. The training provided has focused on preventing the use of pesticides in and around cocoa plantations, decreasing litter and plastic pollution in plantation areas, and discouraging the killing of endangered wildlife, even those that damage cocoa crops.

Madécasse continues to inventory wildlife and build partnerships with experts in forestry and biodiversity and these efforts are a core part of the company's goal to protect and enhance wildlife habitat.

# 6. Results

## 6.1 Cocoa Farmers and Communities

### 6.1.1 Context

The majority (80-90%) of cocoa grown worldwide is produced by 5 to 6 million smallholder or family-owned farms<sup>ix</sup>. Although demand for cocoa products has increase by 13% over the past decade, driven by a growing middle class in China, India and Brazil, most cocoa farmers earn less than \$1.25 per day.<sup>x</sup> In Cote d'Ivoire, the world's leading producer of cocoa, 57% of cocoa harvesters are living in poverty.<sup>xi</sup> Cocoa farmers are also extremely vulnerable to fluctuations in global cocoa prices. For example, in September 2016 and February 2017, when global cocoa prices fell sharply, the average income of smallholder cocoa farmers dropped by 30 to 40 per cent.<sup>xii</sup>

In Madagascar, the plight of cocoa farmers is compounded by widespread poverty and poor infrastructure. Even though agriculture is a key driver of Madagascar's economy and provides the bulk of employment in rural areas<sup>xiii</sup>, just 9% of farms are fully commercialized. The rest face barriers to commercialization, including a lack of land, lack of water, low productivity and lack of money to invest in improving their farms.<sup>xiv</sup> In addition, most equipment used by the agri-food sector is obsolete and agricultural productivity has been declining for more than two decades.<sup>xv</sup>

Even so, farming is the main source of income for nearly half of the adult population with 71% of Malagasy households engaged in some form of farming.<sup>xvi</sup> Many farmers in Madagascar conduct subsistence farming and have trouble meeting their daily needs, let alone investing in improving their farms. The plight of farmers, including cocoa growers who exported \$23.8 million worth of cocoa products in 2017<sup>xvii</sup>, is exacerbated by global fluctuations of commodities prices.<sup>xviii</sup> At the same time, climate change is having a “massive impact on cocoa production,” according to the 2018 Cocoa Barometer report, which explained that large swathes of land have already become or will become less suited to cocoa production in the coming years.<sup>xix</sup>

## 6.1.2 Impacts

In October 2018, during the middle of the high harvesting season for cocoa, we interviewed a total of 76 people who grow cocoa in the Sambirano Valley. Sixty of the people we interviewed participate directly in Madécasse’s supply chain by way of employment or cooperative membership, while 16 of them work in the cocoa sector in the same region where Madécasse’s sources cocoa, but do not supply cocoa to Madécasse. Of those we interviewed that were involved in Madécasse’s supply chain, we interviewed 46 people who are part of Madécasse Cooperatives, 13 people who are Madécasse Plantation Farm-workers, as well as Lalatiana, who owns the Madécasse plantation. This approach allowed us to look at the impact of Madécasse according to a range of actors in their supply chain, look at differences in impact for different types of actors in the supply chain, and also compare Madécasse’s impacts with the status quo for cocoa farmers in the region.

The following facts and figures show the proportion of people who mentioned indicators, which we developed according to an impact investment rating system, the UN Sustainable Development Goals, and according to local perspectives. We categorized mentioned impacts into a broad set of indicators, which can be viewed in the database (Appendix 3 to this report).

### 6.1.2.1 Positive impacts

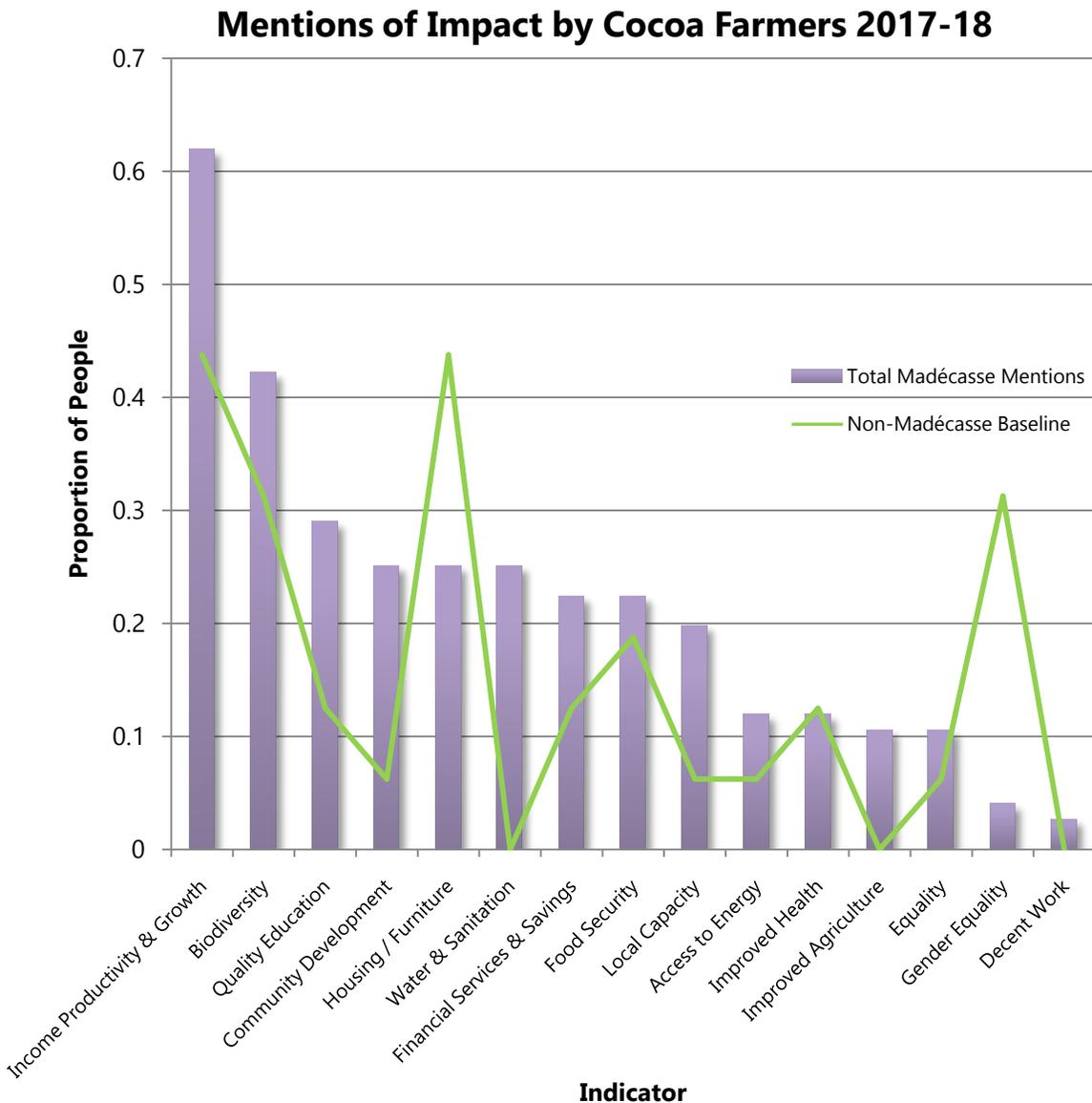
The respondents mentioned a number of ways in which Madécasse had positively affected their community in the areas of income productivity and growth, biodiversity, quality education, community development, housing, water and sanitation, financial services and savings, food security, local capacity, access to energy, improved health, improved agriculture, equality, gender equality and decent work (see Figure 3, below).

More than 60% of interviewees believe Madécasse’s work leads to even better incomes for cocoa farmers, while 25% see improved development in their communities. These include better access to quality education for their children (29%), improved water and sanitation (25%), and more opportunities to access to financial services and accrue savings as a result of Madécasse’s activities (22%). Additionally, Madécasse’s work is seen as positively impacting the local environment – 42% of interviews had mentions of the positive impacts of the cocoa plantations for local wildlife.

Even though there were some differences between the impacts mentioned depending on the age or gender of participants, and whether they were part of a cooperative or worked on a plantation, these

differences were not statistically significant (Paired T-tests and Correlations were conducted,  $P > 0.05$ ). Therefore, for overall presentation, we added together groups by age, gender, and whether they worked on a plantation or for a cooperative.

In Figure 3, the frequency of references to Madécasse’s impact on specific categories is compared to the frequencies of references to impacts generally associated with cocoa farming. The “baseline” shows that, in general, cocoa farming provides opportunities for local people to improve their incomes, invest in better housing and furniture, improve food security, and improve gender equality (by generating employment opportunities for women). Notably, several women also mentioned that they were able to gain independence and provide for their children without depending on others because of cocoa farming.



**Figure 3.** The proportion of people interviewed who mentioned an impact, categorized into indicators, of Madécasse’s cocoa purchasing agreements and projects in the Sambirano Valley (bars) and the proportion of people interviewed that sell cocoa to other companies or collectors who mentioned an impact of cocoa farming in general.

In addition, even though it has been nearly 3 years since Madécasse invested in projects to improve school buildings and community water access (installing wells), community members discussed how they still appreciated and enjoyed the benefits of these infrastructure projects. Additionally, people mentioned that they were able to afford to send their children to private school as a result of selling cocoa to Madécasse. The people we interviewed also highlighted how Madécasse's efforts to install wells in the community in 2015-16 had continued to improve women's quality of life and health, since women and girls no longer had to wake up early in the morning to stand in line to gather water from more distant wells (before Madécasse and the Whole Planet Foundation installed wells in Antranokarany) or polluted water sources, such as the Sambirano River.



*Girls in Antranokarany collecting household water from a well installed by Madécasse, COKAFA, and the Whole Planet Foundation in 2015-16.*

Some participants also said Madécasse's investment had improved the health of their community because they could now afford to go to the doctor and travel more easily to the town centre to seek medical services by way of roads that the community had improved with money saved through working with Madécasse. In addition, 23% of employees of a plantation owner that sells cocoa to Madécasse mentioned that their employer covered all of their private healthcare costs. The differences between Madécasse's impact on employees of the plantation and members of cooperatives will be discussed in more detail below.

In both 2016 and again in 2018, participants shared with us that that selling to Madécasse is viewed as a marker of wealth in their communities. During our interviews, 37% of cocoa farmers who do not sell to

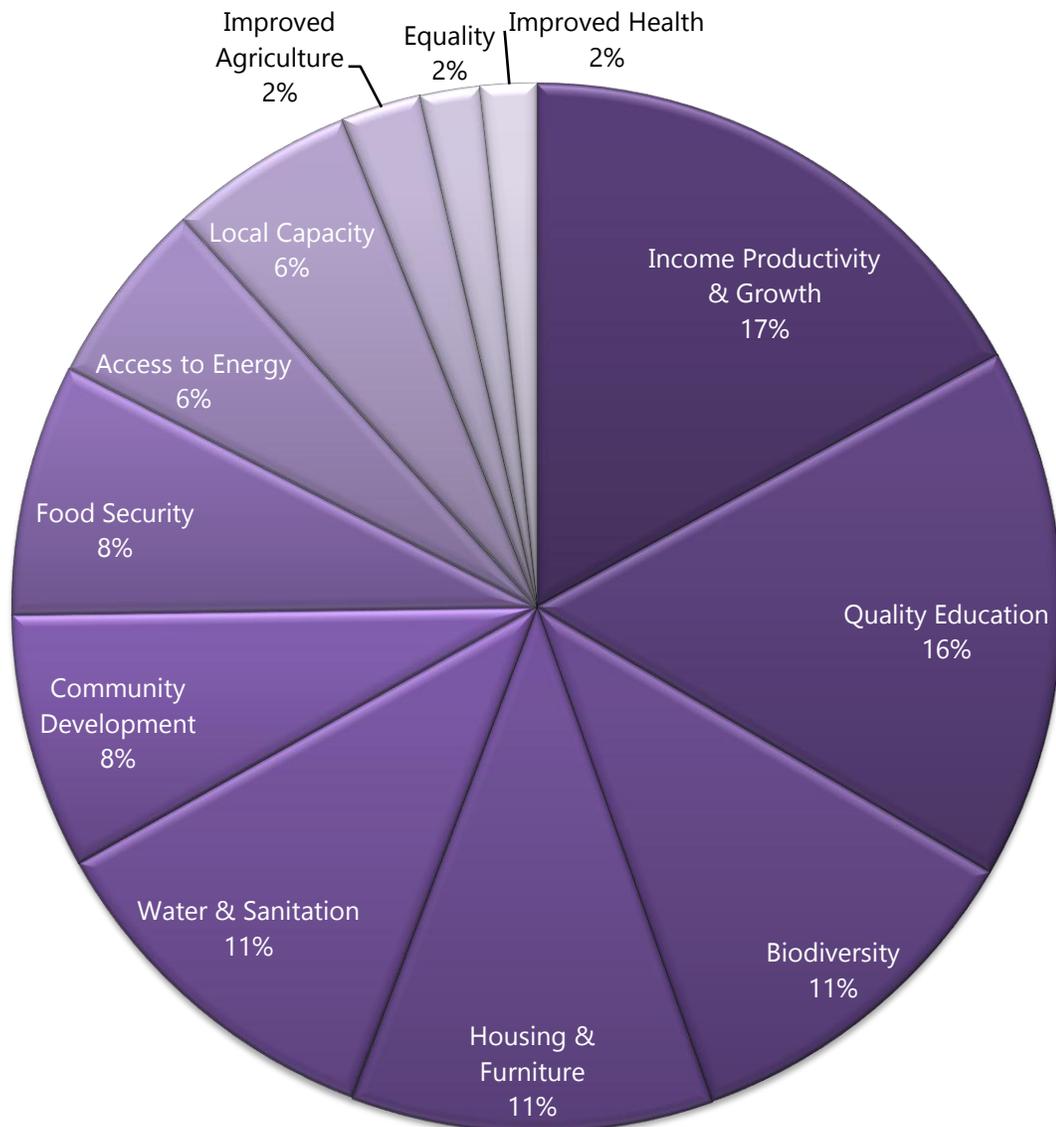
Madécasse mentioned that people they know to be members of cooperatives that sell to Madécasse are wealthier, have good lives, and more active social lives (better parties, to be exact). Some people even said they believed that people who are members of cooperatives that sell to Madécasse are heavier and physically stronger than other people in their communities, suggesting that they enjoy better food security and overall health.

The first most mentioned impact of Madécasse's presence in Sambirano Valley was income productivity and growth, followed by access to education and access to water. Farmers and their communities discussed how stable and improved incomes over time had helped them access services. Specifically, members of the cooperatives selling cocoa to Madécasse mentioned being able to send their children to better quality and private schools as a result of higher incomes.

Figure 4, below, shows the proportion of total mentions of positive impacts by people that grow cocoa for Madécasse. The two most mentioned impacts were the productivity and growth of their incomes resulting from stable salaries and/or higher than average prices paid for cocoa, and access to quality education. Impacts which comprised less than 1% of total mentions included improved gender equality and availability of decent work opportunities as a result of Madécasse's presence. Although less than 1% of people attributed improvements for women to Madécasse, we believe this is because the company is seen as treating both genders equally (several people said this), and advantages to women present in more subtle ways. Cooperative membership or employment in plantations provide income opportunities to women for whom options are often limited to marrying. In addition, the improved access to water and sanitation has knock-on effects of improved quality of life for women.

Overall, the data indicates that local people perceive that selling cocoa for Madécasse has improved their lives in multiple ways, including improvements to the local environment, their children's access to education, and their health. Additionally, the mentions of community development (e.g. better roads, better market access) and improvements to local capacity to produce cocoa (e.g. improved knowledge, improved infrastructure) suggest that the impacts of Madécasse's work lead to long-term and lasting effects in communities.

## Total Mentions of Impact 2017-18



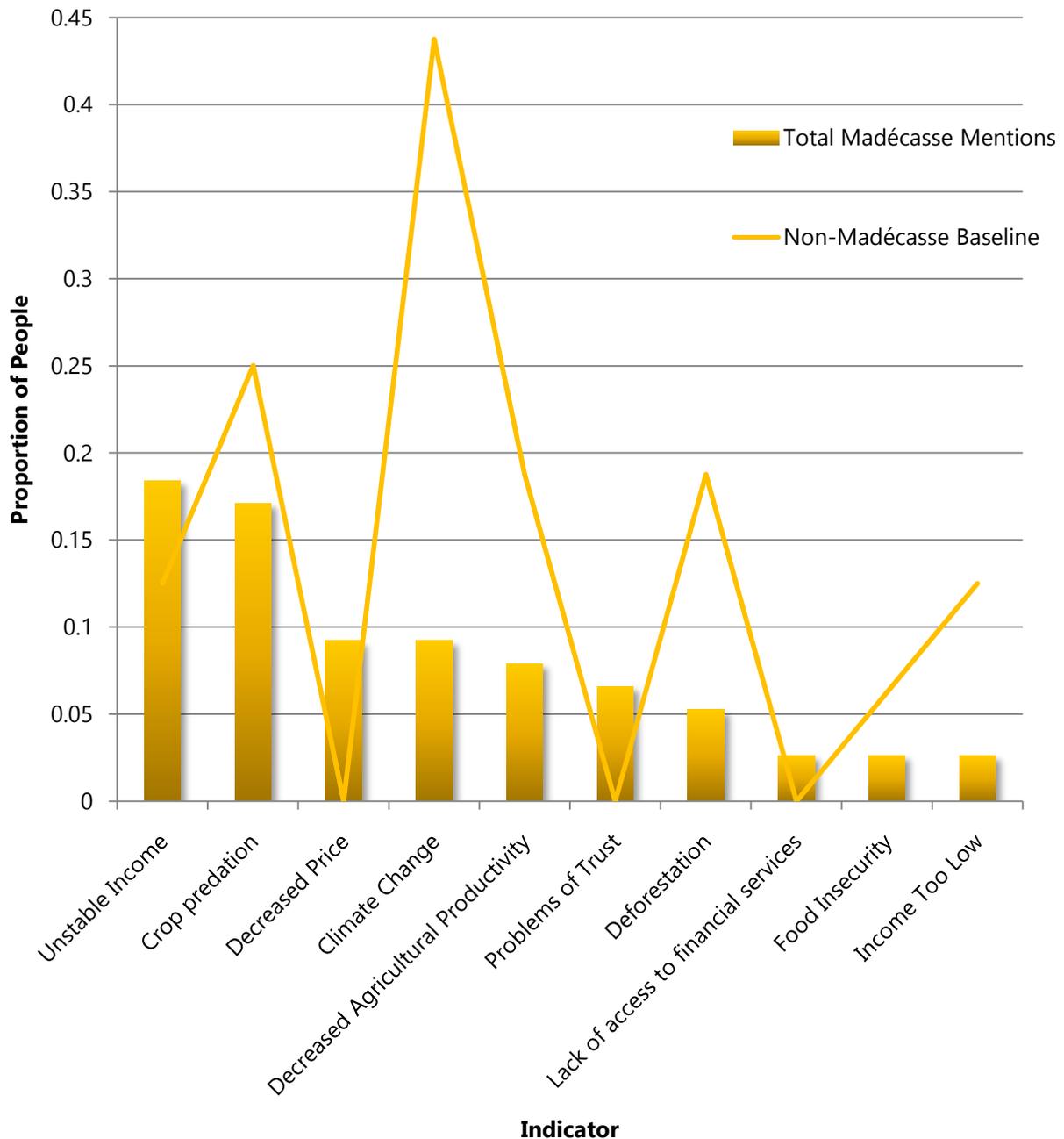
**Figure 4.** Pie chart showing a breakdown of the total number of times each indicator was mentioned in relation to Madécasse, in interviews with 76 cocoa farmers in the Sambirano Velly in October 2018.

### 6.1.2.2 Risks

In addition to positive impacts, the cocoa growers we interviewed revealed risks that farmers associate with cocoa farming. The following figures show the risks that were mentioned by cocoa farmers and how frequently they were mentioned. In Figure 5, the bars represent the proportion of people mentioning negative impacts and risks associated with Madécasse's activities, while the line shows the proportion of people mentioning negative impacts and risks associated with cocoa farming in general. Overall, less than

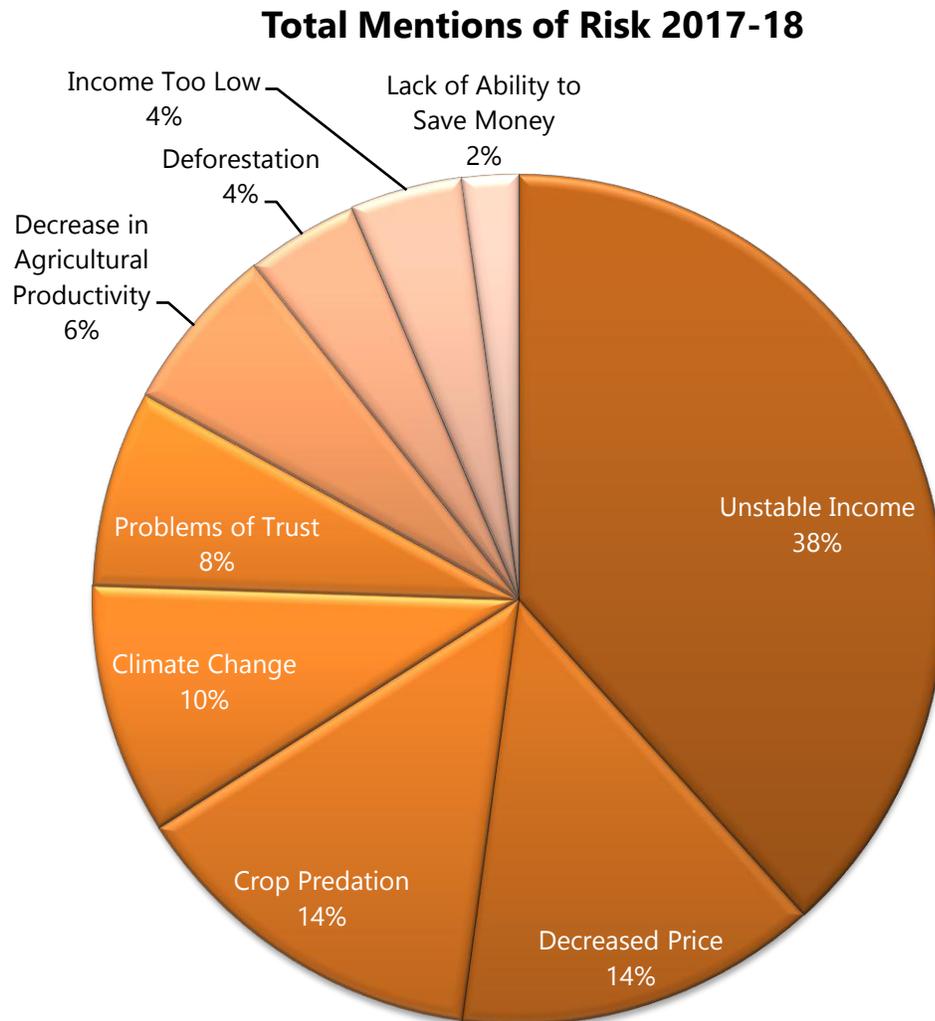
50% of any people interviewed mentioned any negative impacts or risks, but the most mentioned impacts overall were climate change, deforestation, and crop predation by local wildlife.

### Mentions of Risk Associated with Cocoa 2017-18



**Figure 5.** The proportion of people interviewed who mentioned a risk, categorized into indicators, of Madécasse’s cocoa purchasing agreements and projects in the Sambirano Valley (bars) and the proportion of people interviewed that sell cocoa to other companies or collectors who mentioned a risk of cocoa farming in general.

Figure 6, below, shows the proportion of total mentions made up by each risk and negative impacts mentioned by cocoa farmers. This re-affirms the relative importance of income stability and environmental factors which impact cocoa yields, and thus the income and savings of cocoa growers.



**Figure 6.** Pie chart showing a breakdown of the total number of times each risk was mentioned in relation to Madécasse, in interviews with 76 cocoa farmers in the Sambirano Velly in October 2018.

The decreased price of cocoa over the past year and less stable and predictable incomes were mentioned, as well as problems of trust related to these issues, with particular reference to Madécasse. Some payments to both the cooperative and plantation owner have been delayed, leading to some perceived friction between cooperatives and Madécasse, and between the plantation owner (Lalatiána) and their employees, as a result of delayed payments. Of those interviewed, 18% mentioned that their incomes were less stable than they had been previously with Madécasse, and of those, about 7% mentioned that they were upset about this issue. In the case of delayed payments, the cooperative members sold their

cocoa to each other in order to maintain their incomes, where the plantation owner needed to temporarily lay off some of their employees for a 3 month period.

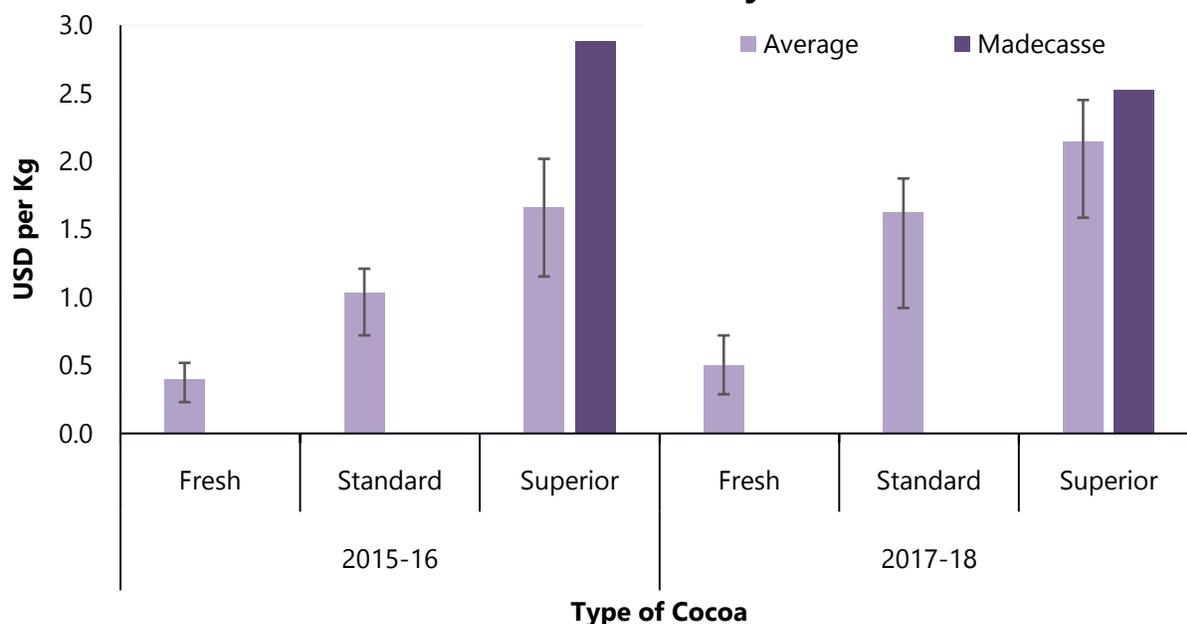
The majority of cooperative members feel confident that they will receive their payments because they have a trusting, long-term relationship with Madécasse. However, the worries expressed by some respondents regarding stability of income, combined with lower yields related with a hotter, drier climate, are concerning for cocoa growers. The mentions of climate change, deforestation, and related reduction in cocoa yield are expected to increase as a result of changing climate in the future – more information on this can be found in the biodiversity section late on in the report.

### **6.1.2.3 Pricing and income**

Madécasse continues to provide a relatively high and stable price to the cocoa farmers it works with. As mentioned above, Madécasse's farm-gate prices paid to farmers decreased in 2017. Prices that Madécasse pays to Madécasse Cooperatives decreased by 15% and to Lalatiana decreased by 10%. The decrease in price was a business decision made by Madécasse to more closely match a decreasing farm-gate price paid by other cocoa buyers in the region. In addition to the drop in price, some payments by Madécasse to cocoa producers have been delayed. Respondents of surveys expressed mixed feelings about this, which were detailed above.

Although Madécasse lowered its price to farmers, the company has maintained higher and more stable prices than the average received by cocoa farmers in the region. While the price Madécasse pays to the mid-sized plantation owner is the highest price we measured in the region, the price Madécasse pays to cooperatives is now equal to the price paid by some other cocoa buyers in the region. This data is provided as in Appendix 4 from the World Bank's PIC2 Project. The following table and Figure 7 below summarize farm-gate prices paid to cocoa growers in Northwest Madagascar. Looking at these figures, we can see that the economic advantage to cocoa producers of selling their product to Madécasse is less in 2017-18 than in 2015-16, making maintaining price stability more important than ever.

## Price per Kg Paid to Cocoa Producers in the Sambirano Valley



**Figure 7.** Average price paid to cocoa producers (USD \$ per kg) for cocoa which has undergone different processing, with error bars showing maximum and minimum prices, as reported by cocoa producers.

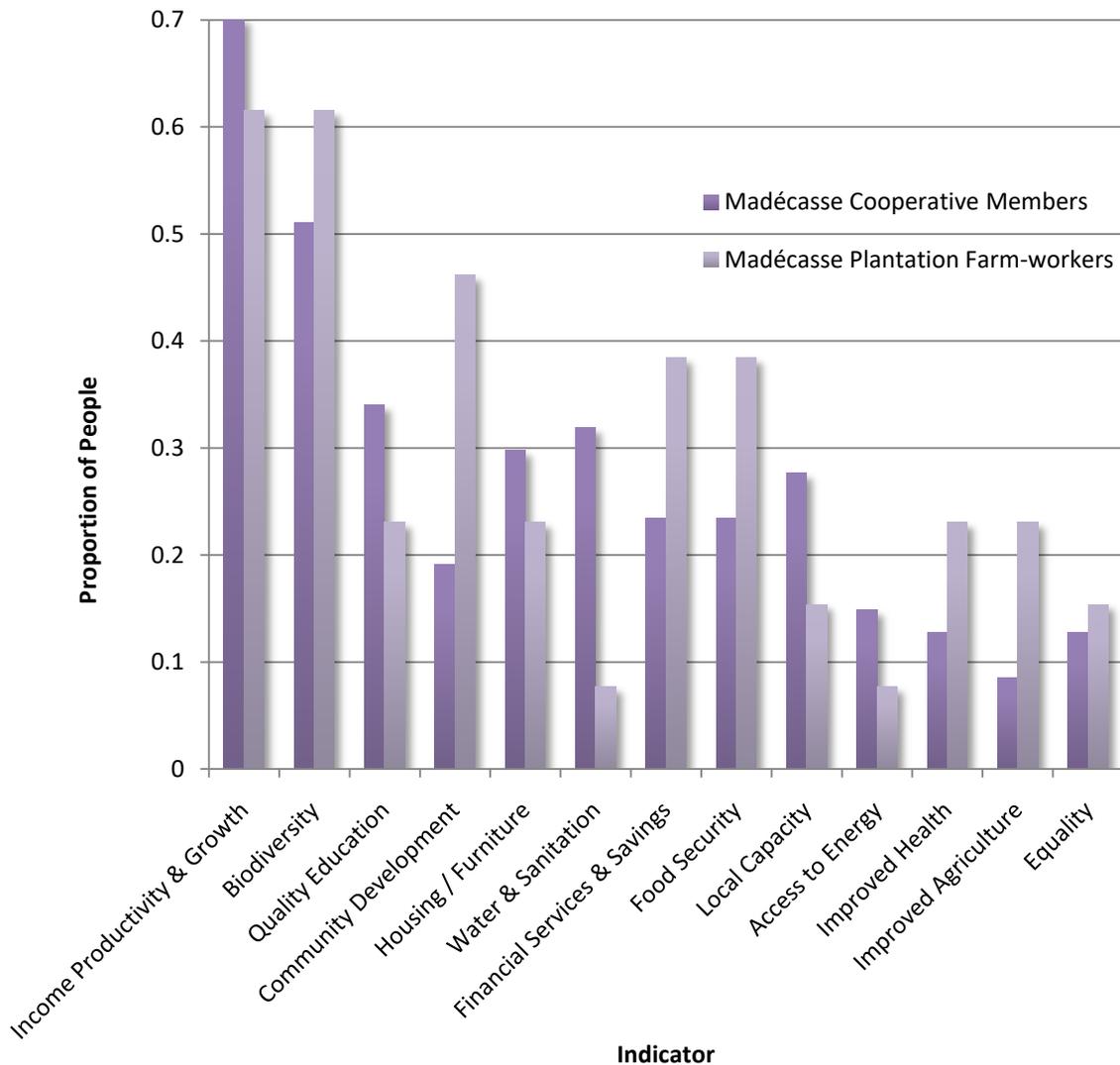
This table shows the data points used to create Figure 7, but is given in Malagasy Ariary (MGA) rather than USD and with information on price stability. Stable prices allow farmers to anticipate their income and plan, accordingly, increasing the ability of households and communities to remain resilient should other challenges (e.g. poor agricultural yields, disease or death in the family) arise.

Cocoa type	Buyer	2015-16		2017-18	
		Price per kg (MGA)	Stability	Price per kg (MGA)	Stability
Cocoa dry superior	Madécasse - Cooperative	10,000	Stable	8500	Less stable than previously
	Madécasse – Plantation owner	10,000	Stable	9000	Less stable than previously
	Collector/plantation owner	6000 – 9000	Unstable	7000 – 8500	Unstable
Cocoa standard	Collector/plantation owner	3000 – 7000, currently 5000	Highly unstable	4500 – 6000	Unstable
Cocoa fresh	Collector/plantation owner	1000 – 3000	Highly unstable	450 – 5500	Highly Unstable

Cocoa farmers' annual incomes vary widely as a result of a number of factors including the type of cocoa they produce (fresh, standard, superior), whether or not they engage in other farming activities, or whether they are a member of a cooperative or employee of a plantation. Madécasse is able to provide the cooperatives and the plantation owner they purchase cocoa from a high price because they produce high quality cocoa, follow Organic standards of certification, and in the case of cooperatives, because they are a legal entity (which was facilitated by Madécasse, see table in Sec. 5.1, Inputs & Activities, Partnerships & Capacity Building). Still, there is a major difference in income for cocoa farmers if they are a member of a cooperative or if they are an employee of a plantation.

Impacts observed in this year's report are different, and more nuanced, because cooperatives have grown, some members have been around for longer, and there are also new employees at the plantation, which has expanded. Depending on when relationships were initiated, the observed impacts are different. Over time, the impacts of higher and more stable incomes move through a hierarchy of needs. In other words, as a cocoa farmers' family income and savings accrue over time, their mentioned impacts move from meeting their daily food needs first, to housing second, then over time into making longer term investments in livestock, land and their childrens' education. This point is illustrated in Figure 8, below by comparing the surveys and interviews of cocoa farmers in Madécasse Cooperatives and Madécasse Plantation Farm-workers.

## People Mentioning Positive Impacts of Cocoa 2017-18



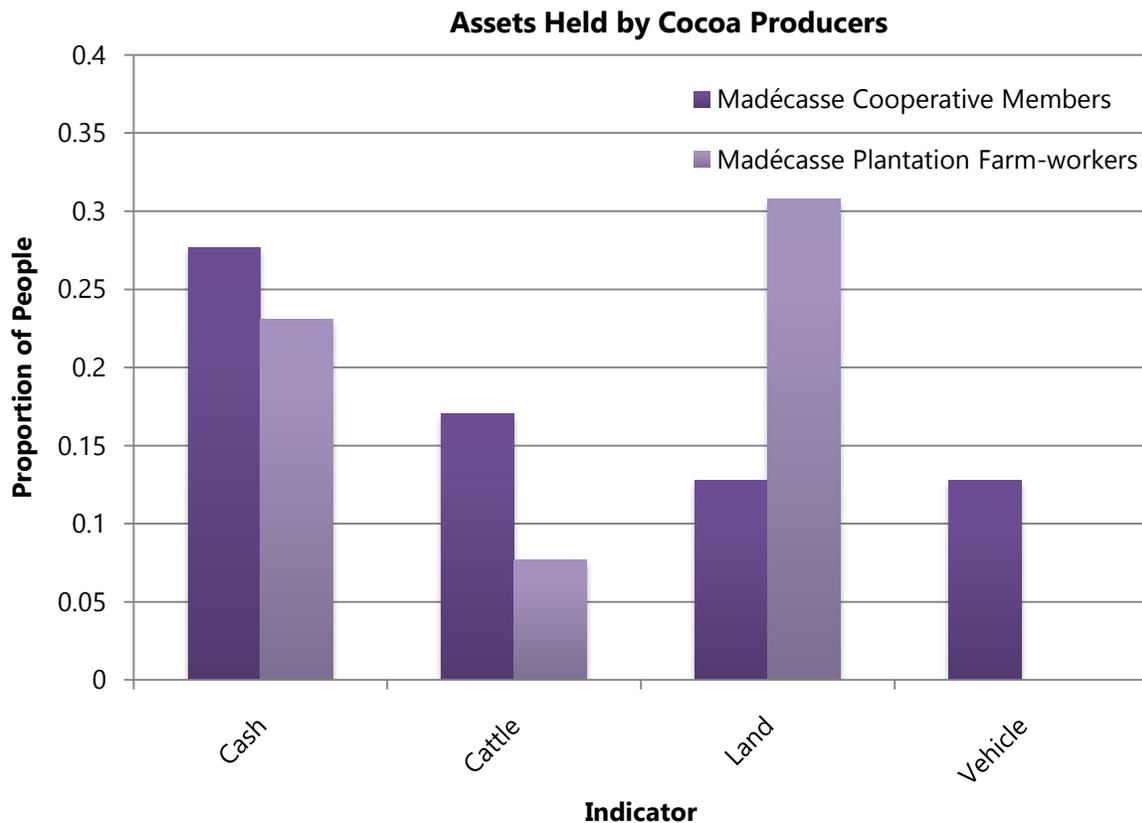
**Figure 8.** Proportion of people interviewed who mentioned each indicator, classified according to whether they are a member of a cooperative which sells to Madécasse (Madécasse Cooperatives) or if they work on a plantation that sells cocoa to Madécasse (Madécasse Plantation Farm-workers).

Within the Madécasse Cooperatives, there are also differences between COKAFA and Tsy Ampioiziko. After 4 years of contracts under Direct Trade relationships with Madécasse, cocoa farmers in the COKAFA cooperative have built their capacity as an independent organization and cooperative members appear to have moved further through the hierarchy of needs. The Tsy Ampioiziko cooperative is still building their organizational capacity and members are at an earlier stage, but the impacts mentioned by members of Tsy Ampioiziko (better incomes, better housing) are similar to those mentioned by COKAFA during our surveys in 2016. Members of Tsy Ampioiziko mentioned food security, housing and income improvement more than members of COKAFA, many of whom have managed to purchase motorbikes, furniture or electronics. Specifically, the surveys showed that 25% of COKAFA members have access to electricity at home through solar panels, 5% have TVs, and some have motorbikes (all local measures of wealth).

This suggests that with time, the ongoing income and increasing capacity of the cooperatives leads them to greater equality and out of poverty. In terms of organizational agency, the COKAFA cooperative created its own bank account in 2017, and individual cooperative members are independently signing up for financial services. Since 2016,

- 30 members of COKAFA and 21 members of TsyAmpioiziko have joined an internal savings and loan committee for microfinancing (the local acronym is SILC); and
- 20 cooperative members have opened bank accounts, with 10 more in process, with Banky Fampandrosoana ny Varotra (BFV), a national bank in Madagascar and local entity of the French financial institution, Societ e Generale.

Our surveys showed that members of cooperatives selling to Mad ecasse make an average income of 555,000 MGA or \$156.00 USD per month from cocoa, which far exceeds the national minimum wage. This level of stable income in a country as impoverished as Madagascar has significant and compounding effects on the lives of individuals, their families, and communities, with time. As incomes and saving improve, people start to invest their income in the acquisition of assets such as vehicles, cattle, and land. Figure 9, below, shows what cooperative members mentioned as assets held as a result of their incomes from selling cocoa to Mad ecasse.



**Figure 9.** Proportion of people who mentioned each asset in relation to their income coming from selling cocoa to Mad ecasse, classified according to whether they are a member of a cooperative which sells to

Madécasse (Madécasse Cooperatives) or if they work on a plantation that sells cocoa to Madécasse (Madécasse Plantation Farm-workers).

Employees of the plantation selling to Madécasse have an average salary of \$33.75 USD (120,000 MGA) per month. This amount does not meet the minimum wage for agricultural workers in Madagascar of \$39.00 USD per month (134,920 MGA).<sup>xx</sup> Still, Lalatiana's employees benefit from the stability of Lalatiana's contract with Madécasse. Also, Lalatiana does a number of social projects and provides non-monetary benefits to support his employees including the following, which were mentioned by his employees:

- Providing access or ownership of land for supplementary farming
- Covering all private medical expenses of employees and their children
- Repairing the road between the village of Mangabe and the National Highway, leading to better access to schools, markets, and medical facilities
- Cash advances and loans on an as-needed basis

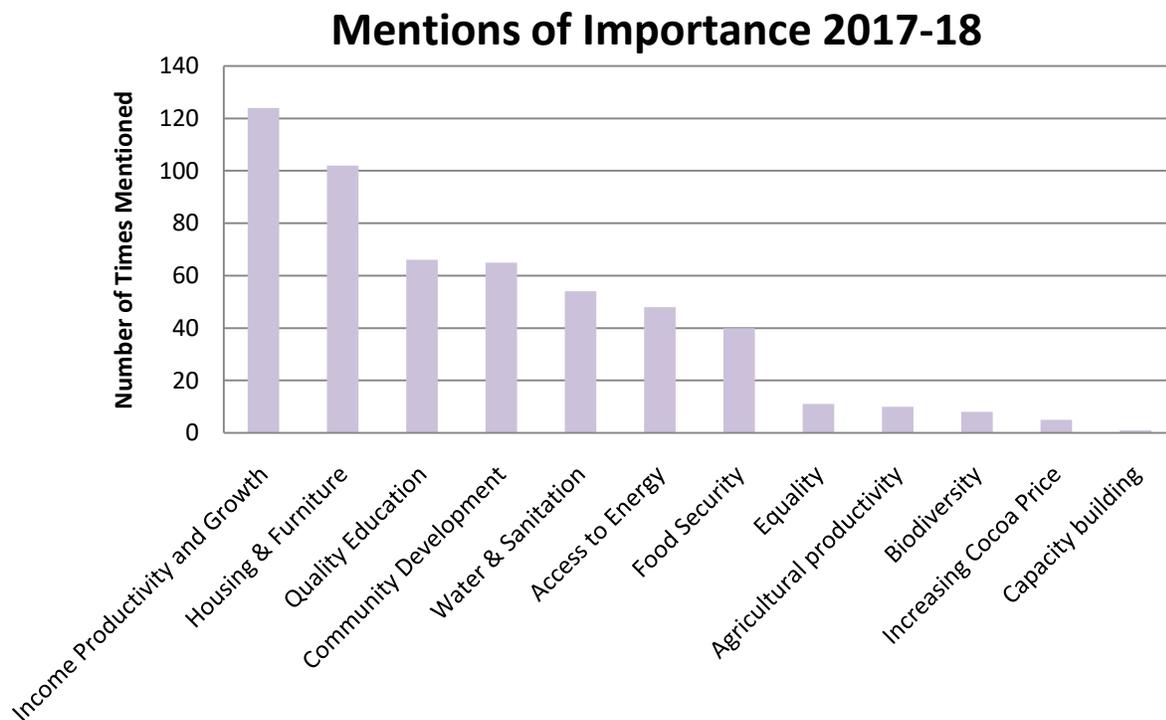
These impacts also show up in the above graphs as mentions of community development and access to financial and health services. Employees of the plantation also mentioned that Lalatiana is planning on building a private school in their village in the short term. While the employees of the plantation do not have large salaries, and many of them complained of their salaries being too low, they are able to meet their basic needs and, in many cases, accrue savings, improve their housing, access better education and healthcare. This is significant in a country where most farmers live in crushing poverty and struggle to move beyond subsistence farming. By way of comparison, some farmers who sell to collectors told us that they make as little as \$11 USD per month from cocoa.

#### 6.1.2.4 Goals of Local People

We asked respondent which impacts and indicators were most important to them and their communities. This was intended to provide a picture of how aligned the impact of Madécasse are with local goals, and also identify needs which could be prioritized for social projects. The primary concerns for most people in the Sambirano Valley, and for those we interviewed, is to have a source of income, and housing. The people we interviewed emphasized that housing was what gave them their humanity, when they were living in poverty.

Water and sanitation were also increasingly highlighted, with many households mentioning the desire for better toilet facilities (this is need is being promoted by local government as well) and emphasizing the importance of water access.

Figure 10 is one of the most important figures in this report because it gives us some indication of what is important and needed at the local level in cocoa growing communities. By looking here, we can see that the positive impacts had by Madécasse are aligned well with what is important to local people.



**Figure 10.** The number of times an indicator was mentioned as being important, or a primary goal to improve upon for themselves or their community, in focus group discussions with 56 cocoa farmers in the Sambirano Valley, Madagascar.

## 6.2 National Level, Madagascar

### 6.2.1 Context

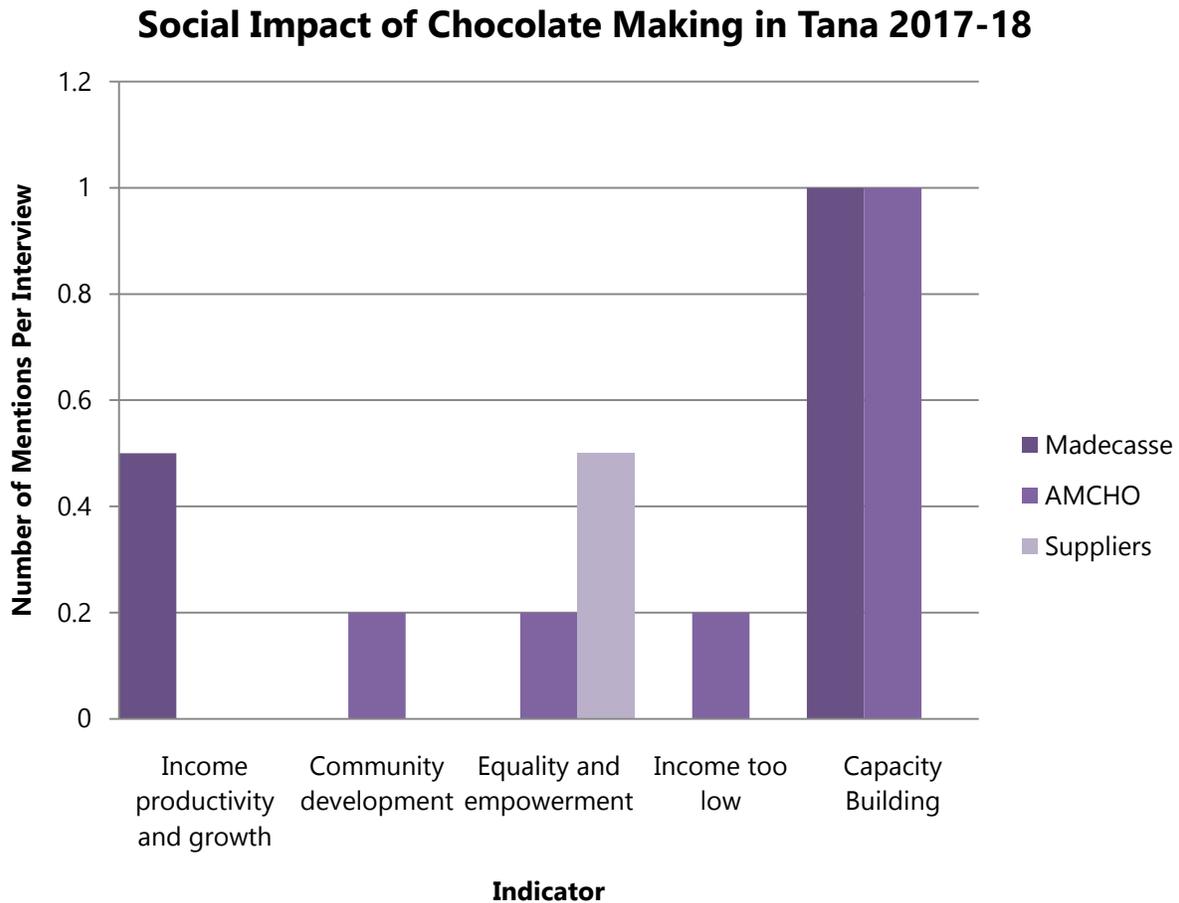
Madagascar is one of the poorest countries in the world. In 2012, the most recent year for which national statistics are available, 71% of the population fell below the national poverty line, while 78% lived on less than \$1.90 per day.<sup>xxi</sup> Poverty is especially high in rural areas, where an average of 77% of the population falls below the poverty line as compared to 49% in cities.<sup>xxii</sup> However, Madagascar's poverty is particularly concentrated in Antananarivo where rates of poverty exceed 66%. The city's growing population, driven by population growth and migration, faces a lack of job opportunities.<sup>xxiii</sup>

Madagascar's high poverty rates have been accompanied by rising malnutrition. 43% of Malagasy people were undernourished in 2016, up from 32% in 2011.<sup>xxiv</sup> In addition, many households lack access to running water, cooking gas and electricity in their homes.<sup>xxv</sup> Just 15% of the population is connected to electricity with the access dropping as low as 5% in some rural areas.<sup>xxvi</sup>

In a country crippled by poverty and lack of infrastructure and technology, the construction and commissioning of a factory to export high quality chocolate and create job opportunities for local people is a great challenge and significant contributor to development.

## 6.2.2 Impacts

Our interviews of 2 Madécasse employees, 5 employees of Madécasse’s partner in American Malagasy Chocolate (AMCHO), the SMTP group, and 2 of Madécasse’s suppliers provide a preliminary picture of the social impact of the new factory in Antananarivo. Figure 11, below gives a summary of the mentions of impact by different types of interviewees.



**Figure 11.** The number of times an impact was mentioned, per interview, for interviews conducted in December 2018 and January 2019 with 3 Madécasse employees, 6 AMCHO employees, and two Madécasse suppliers.

To-date, the creation of AMCHO has resulted in the creation of 14 new, permanent jobs since 2017. Madécasse and American Malagasy Chocolate intend to add between 8 and 13 new jobs in the next 6 months, bringing their total employment to between 20 and 25 people.

The Madécasse employees that we interviewed expressed that:

- They are satisfied with their wage and working conditions
- Senior management meet with employees at least once a week, and staff feel that they can submit a verbal complaint, if needed

- They have opportunities for professional development, including English lessons and learning new software.

Employees of both SMTP and Madécasse shared with us that:

- A daily staff meeting occurs
- There is safety signage and facilities in the workplace
- Employees are provided with health insurance
- There is food available for employees at workplace canteen
- Transportation costs, to and from work, are covered by AMCHO

However, employees of SMTP that also work for AMCHO do not enjoy the same level of salary and professional development opportunities that have been provided to employees of Madécasse. While we did not collect specific information on salaries, our survey results suggested that the salary of employees working for SMTP make the regular minimum wage for employment in Madagascar, which is \$44.96 USD per month (155,523 MGA), but they do not make as much as personnel employed by Madécasse.

Employees of AMCHO/SMTP working at the factory expressed that working conditions were stressful at the time of our surveys. This could be partly related to the workload associated with commissioning a new facility.

When employees are hired with SMTP, they are provided information on how to communicate complaints or labour conditions to a Human Resources department, but employees did not acknowledge this during our surveys.

Overall, while there are areas for minor improvement, we find that through job creation, meeting minimum labour standards, and additionally providing benefits to their employees, the creation and operation of AMCHO provides decent work to people living in Antananarivo, with more impacts expected as the team grows. Additionally, Madécasse being a client of Graphoprint indirectly supports a social enterprise providing meaningful work opportunities for women in Antananarivo.

## 6.3 Biodiversity and Ecosystems

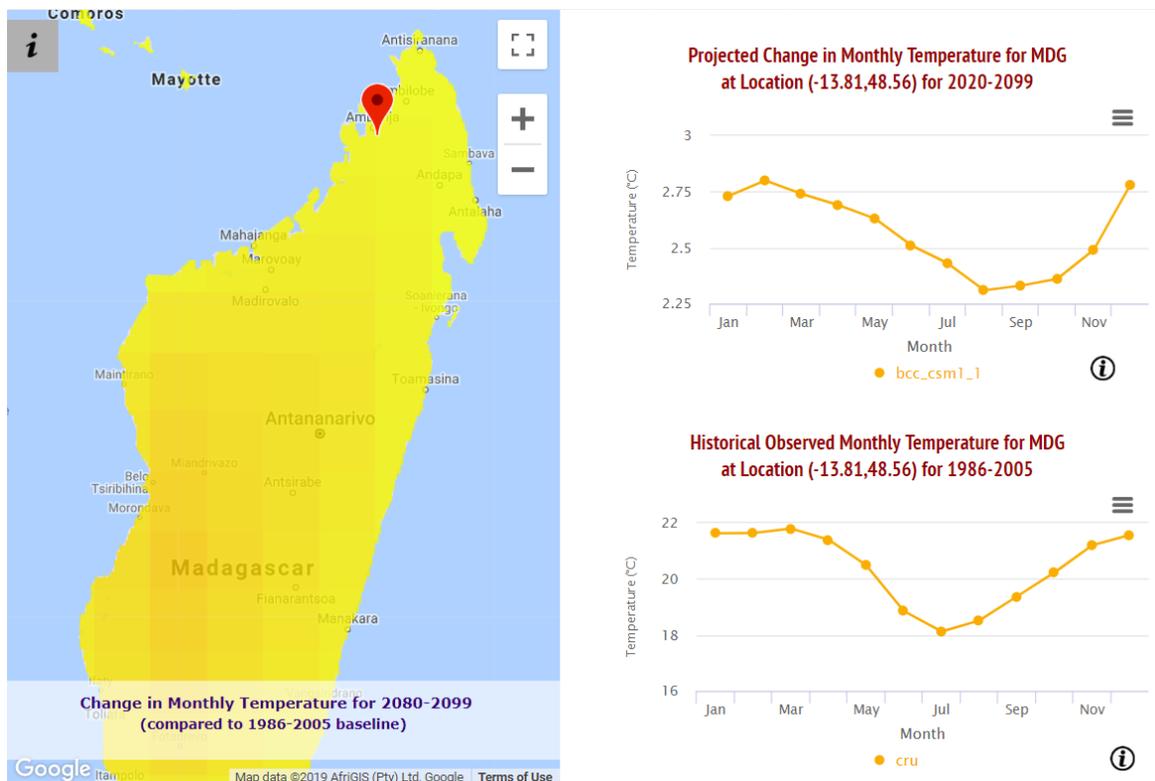
### 6.3.1 Context

Madagascar's biodiversity is unparalleled for its rarity and uniqueness. Eighty per cent of the island's 200,000 known species exist nowhere else in the world.<sup>xxvii</sup>, Much of Madagascar's forests and wildlife have been lost since humans appeared on the island 2,000 years ago. Combined with climate change, the arrival of humans is charged with the extinction of most of Madagascar's large mammals, birds, and reptiles include at least 15 species of lemurs, elephant birds, giant tortoises, and dwarf hippos. While overhunting is a contributor to species loss, habitat loss from slash and burn agriculture is now seen as the primary driver of extinction and biodiversity loss in Madagascar. Extinction rates have accelerated as forests dwindle and cattle and charcoal production increasingly rule the landscape. Deforestation due to slash and burn agriculture and grazing is widespread and severe. At the national level, more than 90% of primary forest has been lost. Still, in the Northwest region where cocoa is grown, forest cover remains

among the highest in the country with 54% of land areas covered in forest. However, deforestation rates in the Northwest are also amongst the highest with 5.2% deforestation occurring annually for the past 10 years.<sup>xxviii</sup>

Lemurs, a group of primates occurring only in Madagascar and nowhere else in the world, are also the world’s most threatened group of primates, with most species being classified by the International Union on the Conservation for Nature (IUCN) as endangered. This is significant because in the face of habitat loss, wildlife such as lemurs become increasingly dependent on finding safety in agro-forest mosaic landscapes such as the tropical forest and cocoa plantations around Ambanja.

In Madagascar, the effects of climate change on are expected to increase. Figure 12 below shows an expected increase in temperature by more than 2.75 degrees Celsius in the Ambanja area, particularly during the southern summer months when cocoa trees bear fruit.



**Figure 12.** Climate predictions for Madagascar showing the average historical (bottom right) and expected increase (top right) in monthly temperatures for the Sambirano Valley.<sup>xxix</sup>

Despite increasing threats from deforestation and climate change, the Sambirano Valley is lush and green with extraordinary biodiversity. The primary forest there is tropical rainforest, some of which is protected in the 32 735 ha Manongarivo Reserve under the jurisdiction of Madagascar National Parks.

### 6.3.2 Impacts

This assessment showed that local people placed greater emphasis on the state of the environment in 2017-18 than they did in the assessment conducted in 2015-16. Forty-two percent of cocoa farmers

working with Madécasse mentioned the positive effect and importance of cocoa plantations in relation to biodiversity. This is vastly more than the 1% of respondents that mentioned the positive impacts of cocoa plantations in our 2015-16 surveys.

This increased number of mentions of biodiversity by farmers is likely related to 1/ a rapidly changing natural environment and climate, 2/ work by Madécasse and their partners on raising environmental awareness, 3/ increased incidence of crop predation by lemurs, and 4/ a change in the style of our survey.



*Forest adjacent to cocoa plantations in the Sambirano Valley*

The 2017-2018 surveys and interviews included additional questions not appearing on the 2015-16 surveys on how cocoa plantations affect biodiversity on land and water. Furthermore, local awareness of these issues may have been particularly high as a result of Madécasse's work to raise environmental awareness over the last two years. In February 2017, Madécasse and its partners conducted intensive research on lemurs in cocoa plantations. In addition, Madécasse delivered a training on Organic cocoa farming practices to its cocoa producers directly preceding our surveys in October 2018.

In this year's surveys, farmers informed us of the presence of even more endemic (existing nowhere else in the world) and endangered wildlife occurring in cocoa plantations. Combined with our inventories from 2016 and information from research by the Bristol Zoological Society on lemurs in plantations, this brings the documented wildlife species in cocoa plantations where Madécasse's cocoa is grown to include:

- 13 Reptiles;
- 10 endemic mammals, including 6 endangered lemur species and the endangered Madagascar Flying Fox; and

- 19 bird species, including the endangered Madagascar Crested Ibis.

This complete list of wildlife and trees occurring in cocoa plantations is provided in an appendix to this report (Appendix 5).

Up to 7 species of lemurs use cocoa plantations, both according to this year's survey and ongoing research by the Bristol Zoological Society. Our conversations with farmers revealed that at least 4 species of nocturnal lemurs frequently use cocoa plantations, and in the past, diurnal lemurs including the local Black Lemur used cocoa plantations. Local people said that since nearby native forests have been protected by Madagascar National Parks in Manongarivo Reserve, Black Lemurs no longer use cocoa plantations. This is evidence that cocoa plantations act as refuges for wildlife when deforestation and habitat loss otherwise push wildlife into agro-forest or human-dominated landscapes.



*A Collared Iguana in a cocoa plantation - one of 13 reptile species known to use Madécasse cocoa plantations*

Nearly every respondent mentioned that mouse lemurs (*Microcebus* of at least two species) were eating cocoa fruits. In contrast, in the last impact assessment, farmers did not mention cocoa being eaten by lemurs, suggesting that either lemurs have become more dependent on cocoa fruits, or people could be more willing to discuss this issue. This year, farmers mentioned rats less than lemurs, but also indicated they are regular predators of cocoa fruits. This phenomenon creates a potential conflict between cocoa farmers and wildlife – on one hand a Critically Endangered lemur species, and on the other hand an exotic invasive pest species. So far, Madécasse has managed this conflict through raising awareness about wildlife conservation among farmers. Nearly every respondent said that they do not kill lemurs even if

they are eating cocoa. One cocoa farmer, however, admitted to destroying a den of mouse lemurs in a deliberate effort to deter the lemurs from using cocoa plantations as habitat. So, it is critical that the incidence of crop predation is monitored and efforts are made to prevent damage to habitat of endangered lemurs.

The cocoa farmers that we interviewed noticed extreme changes in the climate over the past two years, in addition to increased rates of local deforestation resulting from slash-and-burn agriculture and charcoal production. The changing climate was largely attributed to the loss of culture and respect for traditional taboos by young people and immigrant individuals that cut trees down in sacred areas of forest, sacred hills, and the nearby Manongarivo Reserve. Increased slash-and-burn agriculture is perceived by those we interviewed to be a result of immigration by Antandroy people from the south of Madagascar, who have left their own region as a result of severe drought and food insecurity related to a changing climate. The effects of climate change on cocoa productivity was also acutely observed. All the people we asked about yields informed us that while yield had decreased in 2016 and then increased in 2017, the yield of cocoa decreased sharply in 2018 as a result of a drier and hotter climate during the growing season.



*Cocoa grows amongst other native flora and fruit trees, creating an agro-forest landscape*

Overall, 30% of cocoa farmers interviewed mentioned that cocoa plantations are important refuges for local wildlife, showing a greater recognition for the ways in which the plantations supported biodiversity and wildlife. Respondents also mentioned that wildlife increasingly used the shade and cooler temperatures of the plantation as a refuge from increasing temperatures. This speaks to the importance of

the plantations to Madagascar's wildlife in an increasingly deforested nation and changing climate, and also to the increased awareness of cocoa farmers on the declining state of the greater environment.

## 7. Recommendations

Direct Trade models, such as the one employed by Madécasse provide a solution to critical social problems in the cocoa farming sector. As this report shows, Madécasse, is playing a role in reducing poverty for up to 90 individual cooperative members and one plantation owner, by paying higher and more stable prices for cocoa than the regional market, as well as through social and environmental projects focused on improving the well-being of cocoa-growers. In addition, efforts by Madécasse's partner, Lalatiana Andrianarison, to engage in social development and provide uncommon health and income benefits to his employees are supporting 36 Madécasse Plantation Farm-workers and their children to have a better quality of life.

As this report demonstrates, this approach works well to build trust and improve the quality of life of cocoa farmers. This is underscored by the perceptions of farmers and their communities. The people we interviewed for this sustainability report described and recognized the impact of Madécasse's efforts to improve the lives of those in the communities that they buy cocoa from.

We also commend Madécasse's efforts to support social development efforts of cooperatives and plantation owners. Madécasse plays an important role by providing these actors with steady income and connecting cooperatives with other partners to carry out financial investment, improve roads, build schools, and improve access to water and sanitation. This is a significant impact in that it facilitates communities having greater influence over local development in their own communities.

We recommend that Madécasse, in large part, continue their work on social and environmental development, particularly their work on incomes, education, and water & sanitation, because their impact and presence in Madagascar is significant, appreciated, and called for by local people.

We have also highlighted strategies for improved impact and based these on Madécasse's stated impact goals and the results of this year's survey. These recommendations fall under two broad strategic calls to action outlined below, and are also elaborated in the following table, appearing in relation to Madécasse's impact goals.

**Recommendations Table:** These recommendations directly relate to Madécasse’s stated social and environmental impact goals. The left column presents Madécasse’s impact goals, while the right column presents recommendations on how Madécasse can improve positive impacts and mitigate the risks identified during this assessment. The status of each goal is marked by one of three colours to indicate whether Madécasse is on-track to meet the goal 🌱, whether the goal needs more attention 🟡, or whether the goal is at risk of not being accomplished 🔴.

Goal	Recommendations
<p><b>Communities &amp; Cocoa Farmers</b></p> <ul style="list-style-type: none"> <li>Strengthening the local economy by creating and improving opportunities for steady income by local people 🟡</li> <li>Engaging in skills transfer and development across the cocoa and chocolate supply chain to ensure more benefits are accrued in the country of origin by: <ul style="list-style-type: none"> <li>A. Increasing the quality of raw materials and creating value-added products in Madagascar by building the capacity for local people to produce superior cocoa beans that are Direct Trade and Organic, and keep the records necessary for upholding certifications 🌱🟡</li> <li>B. Providing secure space for long-term volume of cocoa in Madagascar 🌱</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Continue investing in Direct Trade relationships and improved infrastructure</li> <li>Require primary supply chain partners (Lalotiana) to adhere to minimum wage standards</li> <li>Support/require primary supply chain partners (Lalotiana) to adhere to Decent Work standards under UN Charter of Human Rights checklist by International Labour Organization<sup>xxx</sup></li> <li>Price match cocoa prices paid to cooperatives so they match the price of 9,000 Ar/kg paid by Madécasse to plantation owners</li> <li>Train new cooperative members and employees on agricultural best practices (inter-cropping and reforestation)</li> </ul>
<p><b>Chocolate at the Origin</b></p> <ul style="list-style-type: none"> <li>Creating new sales outlets/markets for farmers and other actors in the chocolate supply chain 🌱</li> <li>Improve food safety compared to other chocolate factories in Madagascar 🌱</li> </ul>	<ul style="list-style-type: none"> <li>Source ingredients in Madagascar whenever possible, and with companies having a social and environmental mission</li> <li>Keep records of supplier social and environmental mission</li> </ul>
<p><b>Ecosystems &amp; Biodiversity</b></p> <ul style="list-style-type: none"> <li>Preserve and expand habitat for endangered biodiversity, and in particular, Critically Endangered lemurs 🟡</li> <li>We propose adding the goal of: Mitigate risk of climate change to cocoa farming 🔴</li> </ul>	<ul style="list-style-type: none"> <li>Continue investing in Organic practices and education with cocoa farmers and farm-workers</li> <li>Establish plantation management plan with partners (see partners table below) which includes the following aspects:</li> </ul>

Goal	Recommendations
	<ol style="list-style-type: none"> <li>1. Establish nurseries for cocoa, shade and fruit trees ;</li> <li>2. Promote reforestation with native and non-invasive shade trees;</li> <li>3. Help farmers maintain shaded cocoa plantations and waterways; and</li> <li>4. Monitoring and management of habitat for endangered lemurs.</li> </ol>

The following sections elaborate further on the two recommended strategies that we believe will result in the greatest benefits and improvements to Madécasse’s social and environmental impact.

## 7.1 Ensure consistency of standards in supply chain

In order to be able to report consistently on the positive impacts of Madécasse’s Direct Trade approach, we recommend that Madécasse set guidelines for important partners and suppliers in their supply chain, including adhering to the International Labour Organization’s (ILO) standards for Decent Work. Specifically, we suggest requiring plantation owners that Madécasse purchases cocoa from to adhere to minimum wage standards, or as a start, create a plan to implement this. We also suggest providing information on decent work standards (the ILO) and processes for reporting labour code violations in Madagascar to employees of AMCHO as a matter of accountability and consistency. The ILO is a widely available and accepted regulation in the UN Charter and Human Rights treaties. This checklist, specifically adapted to Madagascar’s context and showing whether National regulations exist with regards to each component is included as an appendix to this report (Appendix 6), and is also [available online here](#).

We further suggest that Madécasse pay the same price of 9000 MGA per kg of cocoa, both to cooperatives and plantation owners, as a matter of fairness and consistency.

## 7.2 Work with partners on plantation management

Apart from our growing knowledge of the importance of cocoa plantations to globally rare and endangered wildlife as a refuge from a changing climate, the economic impacts of climate change are also important to consider. We strongly recommend that Madécasse work with partners to mitigate the impacts of climate change and deforestation on their supply chain, wildlife, and the communities where cocoa is produced. As the climate becomes drier and hotter, food insecurity is expected to increase, along with threat to wildlife and cocoa yields. So, we propose developing a biodiversity plantation management plan that includes establishing a nursery and reforestation program for cocoa, shade trees, and specific species of fruit trees. This plan should also aim to train cocoa farmers and farm-workers in techniques for improving yield, as many of the people we interviewed were new to cooperatives or plantations and had not received training in cocoa growing. The wildlife and plant inventory (Appendix 5) provides a strong basis on which to build this reforestation plan – We particularly recommend planting native trees including marula trees, which provide food for endangered lemurs, fig trees, and trees which provide shade and multiple functions for people and wildlife. Agro-forest landscapes which provide food,

medicine, and habitat for wildlife are extremely effective for improving community resiliency against climate change and other shocks (e.g. cyclone).

In the case of lemurs, we encourage Madécasse to align their efforts with the Emergency Task Force on lemurs action plan, and also propose fundraising to establish an ongoing aspect of plantation management targeted at expanding and protecting habitat for lemurs, specifically.

Implementing some of these recommendations is too much for one small business alone, yet through strategic partnership, some of these opportunities can be leveraged more efficiently. These partnerships can allow Madécasse to reduce risk to the sustainability of their supply, and also improve their social and environmental performance. The table below is a preliminary Strengths, Weaknesses, Opportunities, and Threats analysis of some partners working in the region. We recommend investigating these potential opportunities to develop new partnerships and create progress on some of the above-mentioned recommendations.

<b>Organization</b>	<b>Strength</b>	<b>Weakness</b>	<b>Opportunity</b>	<b>Threat</b>
Helvetas Suisse Intercooperation (HIS)	Support economic development  Experienced with private sector partnership (including cocoa)	Pre-existing agenda	Operates in Ambanja	Partner of Madecasse competitor, Lindt
Programme de Lutte Anti Erosive (PLAE)	Experienced with large-scale reforestation	Pre-existing agenda  End of programme PLAE, Phase III in 2018 but possibility for PLAE, Phase IV	Operates in Ambanja  Reforestation	Work with invasive tree species
Pole Integree de Croissance (PIC), phase 2	Expertise across agricultural sector  Already a partner of Madécasse	Pre-existing agenda  Project duration limited (5year: 2016-2021)	Possibility to finance and support reforestation	Promotes government involvement in private sector, which has contributed to operational barriers in the cocoa sector

Organization	Strength	Weakness	Opportunity	Threat
Aga Khan Foundation	Experience across agriculture, nutrition, climate adaptation, access to finance, improving value chains, including cocoa	Pre-existing agenda	Partnership to improve plantation management for better yields	
	Already a partner of Madécasse			

These recommendations and suggestions are not exhaustive but are suggestions and opportunities to explore, going forward. For now, we wish to commend Madécasse on their successful effort to lift local people and the country of Madagascar, in addition to their ongoing investment and dedication to measuring and improving their social and environmental impact.

## 8. Endnotes

<sup>i</sup> International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.

<sup>ii</sup> The World Bank, "Ease of Doing Business in Madagascar," 2018, available online: [http://www.doingbusiness.org/en/data/exploreconomies/madagascar/#DB\\_gc](http://www.doingbusiness.org/en/data/exploreconomies/madagascar/#DB_gc).

<sup>iii</sup> International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.

<sup>iv</sup> FinMark Trust. 2016. Finscope Consumer Survey Highlights: Madagascar 2016. Available online: [http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide\\_en.pdf](http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide_en.pdf).

<sup>v</sup> World Economic Forum, "Global Competitiveness Report, 2017-2018," 2018, available online: <http://reports.weforum.org/global-competitiveness-index-2017-2018/>.

<sup>vi</sup> Trading economics, "Madagascar – Roads paved," available online: <https://tradingeconomics.com/madagascar/roads-paved-percent-of-total-roads-wb-data.html>.

<sup>vii</sup> Social Impact Report 2017, Wildlife Returns and Madécasse LLC

<sup>viii</sup> <https://www.reuters.com/article/cocoa-ivorycoast-ghana/update-2-ivory-coast-cocoa-farmgate-price-up-in-new-season-ghanas-flat-idUSL8N1WH3Y6>

<sup>ix</sup> World Cocoa Foundation. 2014. Cocoa Market Update. Available online: <http://www.worldcocoafoundation.org/wp-content/uploads/Cocoa-Market-Update-as-of-4-1-2014.pdf>.

<sup>x</sup> Nieberg, Oliver, "Paying the price of chocolate: Breaking cocoa farmer's cycle of poverty," July 9, 2014, Confectionery News, available online: <https://www.confectionerynews.com/Article/2014/07/10/Price-of-Chocolate-Breaking-poverty-cycle-in-cocoa-farming>.

<sup>xi</sup> Pipitone, Laurent. 2018. The state of today's cocoa market, as ICCO revises its forecast for production and grindings. Available online: <https://www.confectionerynews.com/article/2018/06/11/the-state-of-today-s-cocoa-market>.

<sup>xii</sup> Fountain, Antonie and FriedelHeutz-Adams, "Cocoa Barometer 2018," 2018, available online, [http://www.cocoabarometer.org/cocoa\\_barometer/Download\\_file/2018%20Cocoa%20Barometer%20180420.pdf](http://www.cocoabarometer.org/cocoa_barometer/Download_file/2018%20Cocoa%20Barometer%20180420.pdf).

<sup>xiii</sup> The World Bank, "Madagascar Trade Summary 2017 data," 2018, available online: <https://wits.worldbank.org/CountryProfile/en/Country/MDG/Year/LTST/Summary>.

<sup>xiv</sup> FinMark Trust. 2016. Finscope Consumer Survey Highlights: Madagascar 2016. Available online: [http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide\\_en.pdf](http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide_en.pdf).

- 
- <sup>xv</sup> World Bank: Agriculture, forestry and fishing, valued added per worker: International Labour Organization. available online: <https://data.worldbank.org/indicator/NV.AGR.EMPL.KD?locations=MG>; International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.
- <sup>xvi</sup> FinMark Trust. 2016. Finscope Consumer Survey Highlights: Madagascar 2016. Available online: [http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide\\_en.pdf](http://www.finmark.org.za/wp-content/uploads/2016/11/fs-madagascar-pocket-guide_en.pdf).
- <sup>xvii</sup> United Nations, "International trade in goods and services based on UN Comtrade Date," available online: <https://comtrade.un.org/labs/dit-trade-vis/>.
- <sup>xviii</sup> International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.
- <sup>xix</sup> Fountain, Antonie and FriedelHeutz-Adams, "Cocoa Barometer 2018," 2018, available online, [http://www.cocoabarometer.org/cocoa\\_barometer/Download\\_files/2018%20Cocoa%20Barometer%20180420.pdf](http://www.cocoabarometer.org/cocoa_barometer/Download_files/2018%20Cocoa%20Barometer%20180420.pdf).
- <sup>xx</sup> WageIndicator.org "Living Wage Series - Madagascar - January 2018" available online: <https://wageindicator.org/salary/living-wage/madagascar-living-wage-series-january-2018-country-overview>
- <sup>xxi</sup> The World Bank, "Data Bank: Madagascar," available online: <https://data.worldbank.org/country/madagascar>
- <sup>xxii</sup> International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.
- <sup>xxiii</sup> Rouhana, Salim, "Antananarivo: A city for whom?" Feb. 2, 2018, World Bank, available online: <https://blogs.worldbank.org/nasiliza/antananarivo-a-city-for-whom>.
- <sup>xxiv</sup> The World Bank: Prevalence of Undernourishment (2016): Food and Agricultural Organization. Available online: <https://data.worldbank.org/indicator/SN.ITK.DEFC.ZS?locations=MG>
- <sup>xxv</sup> International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.
- <sup>xxvi</sup> The World Bank, "The Force of the Sun: Madagascar Embarks on Renewable Energy Production," 2018, available online: <https://www.worldbank.org/en/news/feature/2018/10/10/the-force-of-the-sun-madagascar-embarks-on-renewable-energy-production>; International Monetary Fund, Republic of Madagascar Economic Development Document, 2017, available online: <http://imf.org/~media/Files/Publications/CR/2017/cr17225>.
- <sup>xxvii</sup> Mongabay. 2014. Madagascar, available online: <https://rainforests.mongabay.com/20madagascar.htm>
- <sup>xxviii</sup> Global Forest Watch. 2019. Madagascar, available online: <https://www.globalforestwatch.org/dashboards/country/MDG>
- <sup>xxix</sup> [http://sdwebx.worldbank.org/climateportal/index.cfm?page=country\\_future\\_climate&ThisRegion=Africa&ThisCcode=MDG](http://sdwebx.worldbank.org/climateportal/index.cfm?page=country_future_climate&ThisRegion=Africa&ThisCcode=MDG)
- <sup>xxx</sup> <https://wageindicator.org/documents/decentworkcheck/DecentWorkCheck-Methodology-20131004.pdf>