



A Report for

PROJECT ORATSIMBA

The Socioeconomic Impacts of COVID-19 on Small-scale
Fishing Communities in Southeast Madagascar

Jessica Savage

October - 2020

1 Introduction

Project Oratsimba, SEED Madagascar's community-based sustainable fisheries management project established in 2013, has been supporting the communities of Elodrato, Itapera and Sainte Luce to establish Locally Managed Marine Areas (LMMAs). For these communities, small-scale lobster fishing is a vitally important income generating activity for between 54 – 83% of households involved in this livelihood (Savage 2020). Lobsters are a high value commodity, with fishers receiving between 20,000-25,000MGA/kg (approximately \$6-7/kg), in a region where the majority of people live on less than the \$1.90 a day international poverty line (Healy 2018). In Elodrato, Itapera and Sainte Luce, poverty is even more widespread with 100% of households living below the locally defined poverty level (Savage 2020). A lack of viable livelihoods, coupled with poverty, compels fishers to continue fishing for lobsters (Long et al 2019) even during the COVID-19 pandemic. Economic resilience in these communities is low as income from lobster fishing and other livelihoods fluctuates daily. Between the 1st of January and 31st of March, during the national closed season for lobster fishing when it is illegal to fish for lobster economic resilience is particularly low. Poverty, food insecurity and poor sanitation makes these communities disproportionately at risk from the COVID-19 pandemic, which reached Madagascar in March 2020, not just from the public health emergency but also the cascading socioeconomic impacts. In response, Project Oratsimba conducted a study between July and September 2020 to assess the socioeconomic impacts of COVID-19 on small-scale lobster fishing communities in southeast Madagascar.

2 Methods

To assess the socioeconomic impacts of COVID-19 on the small-scale fishing communities of Elodrato, Itapera and Sainte Luce community focus groups and shopping basket surveys were conducted.

2.1 Community Focus Groups

Focus groups were designed to collect qualitative data on: community awareness of COVID-19, disruptions to livelihood activities and associated impacts on household income. Focus groups were held in each of the three communities and divided by gender (where appropriate). Participants included; fishers, women from fishing households, Fisheries Management Committee members (Elodrato and Sainte Luce), Natural Resource Management Committee members (Sainte Luce) and community leaders and elders (Itapera).

2.2 Shopping Basket Survey

A shopping basket survey was designed to collect quantitative data on rising food and household good prices. The survey contained a list of 24 staple foods, non-staples and common household goods bought regularly by coastal community households. In each of the communities, shop owners were asked if they stocked the item and the price of each item before COVID-19 was declared a global pandemic and reached Madagascar (between December 2019 and February 2020) and the price at the time of surveying (August and September 2020). The percentage change of each item was then calculated.

3 Results

Ten focus groups and 20 shop surveys were conducted between July and September 2020 in Elodrato, Itapera and Sainte Luce (Table 1). In each community all shops were surveyed, in Itapera the total number of shops was lower as the community consisted of a single small hamlet whereas for Elodrato and Sainte Luce the communities were larger and consisted of multiple hamlets.

Table 1. Number of focus group participants and shops surveyed by community. In Elodrato and Sainte Luce community leaders were included in the Fisheries Management Committee Focus groups.

	Elodrato	Itapera	Sainte Luce
Fishers	15	15	15
Women from fishing households	15	14	15
Fisheries Management Committee	15	NA	16
Natural Resource Management Committee	NA	NA	12
Community elders and leaders	NA	14	NA
Total	45	43	58
Shops	8	4	9

3.1 Community Focus Groups

3.1.1 Awareness of COVID-19

Participants from Elodrato and Sainte Luce reported awareness of COVID-19 since March 2020, and since April 2020 in Itapera. Participants from all three communities have reported socioeconomic impacts through disruptions to livelihoods and increased costs of living since April 2020.

3.1.2 Impacts on Lobster Fishing

Decreased lobster fishing activity compared to previous years was reported in 100.0% of focus groups as fishers were discouraged from fishing for lobsters for two main reasons. Firstly, resumption of lobster fishing following the national closed season was delayed, reported in 100.0% of focus groups, due to the delayed return of intermediaries, reported in 100.0% of focus groups. Intermediaries did not return to all three communities until the 12th of April 2020 whereas in previous years they returned on the 1st of April, the first day of the national season for lobster fishing. Fewer intermediaries were reported to be operating only in Sainte Luce, 40.0% of focus groups, with five intermediaries operating in 2020 compared to seven in 2019. Secondly, fishers received reduced lobster catch prices, reported in 100.0% of focus groups. In 2019, the reported price received was 20,000 MGA/kg in Elodrato and Itapera, and between 20,000 – 25,000 MGA/kg in Sainte Luce. In April 2020, when lobster fishing resumed after the national closed season, reported prices were 10,000MGA/kg in all three communities. At the time of the study (July and August 2020), in Elodrato and Itapera participants reported that prices had returned to those received in 2019. In Sainte Luce, participants reported that prices had increased to 20,000-22,000MGA/kg although this was still lower than prices received in 2019. There was no reported increase in local sale of lobsters as there was no local demand for lobster and only fishers who own their own pirogues were able to sell lobsters to people other than intermediaries. There was also no reported increase in household consumption of lobsters as fishers preferred to sell lobsters for money rather than consuming them (Table 2).

Table 2. Impacts of COVID-19 on lobster fishing reported during focus groups (n=10).

Impact	Percentage of focus groups
Decreased lobster fishing activity	100.0
Reduced catch price	100.0
Delayed resumption of lobster fishing following national closed season	100.0
Delayed return of intermediaries following national closed season	100.0
Fewer intermediaries operating	40.0
Local sale of lobsters	0.0
Household consumption of lobsters	0.0

3.1.3 Impacts on Livelihoods

Lobster fishing was reported to have remained a primary source of income in Elodrato and Itapera, 60.0% of focus groups. In Sainte Luce, the closure of the periodic no take zone followed shortly after lobster fishing activities resumed and it was reported that this, combined with lower catch prices, made lobster fishing even less profitable and lobster fishing was no longer the primary source of income. Instead, there was an increase in fishers targeting elasmobranchs and other pelagic fish such as tuna as this was more profitable as a local market existed. This was only reported in Sainte Luce, 40.0% of focus groups. In Itapera, although commonly practiced, an increase in elasmobranch and pelagic fishing was not reported. In Elodrato, elasmobranch and pelagic fishing was not widely practiced, and an increase was not reported. Other sources of income when lobster fishing was disrupted included agriculture, fishing for species other than lobster and weaving reported equally, in 60.0% of focus groups, although this varied by community. In Elodrato, weaving and agriculture were reported in all three focus groups. In Itapera other sea fishing was reported in all three focus groups and farming in one. In Sainte Luce, other sea fishing and weaving were reported in three focus groups and farming in one. There were no reported impacts on farming and other sea fishing as these relied on local markets. COVID-19 also impacted weaving with participants reporting that woven products are being bought for half or less of the 2019 price, 1,000-2,000MGA instead of 4,000MGA. The use of forest resources for income remained low. Increased charcoal production was only reported in one focus group in Elodrato. In Sainte Luce, three out of the four focus groups reported that charcoal production has not increased because the forests surrounding the community were protected. In Itapera, there was no increase in charcoal production as households used only firewood for cooking. Involvement in logging has remained low in each community and there was no reported increase (Table 3).

Table 3. Impacts of COVID-19 on livelihoods reported during focus groups (n=10).

Impact	Percentage of focus groups
Lobster fishing remaining primary source of income	60.0
Increased targeting of elasmobranchs and pelagic fish	40.0
Income from agriculture when lobster fishing was disrupted	60.0
Income from other sea fishing when lobster fishing was disrupted	60.0
Income from weaving when lobster fishing was disrupted	60.0
Increased charcoal production	10.0
Increased logging	0.0

3.1.4 Impacts on Household Income

Lower household income from lobster fishing and insufficient overall household income were reported in all focus groups. Changes in household spending habits were also reported in all focus groups with households spending less money than previous years and prioritising spending money on food and in some cases healthcare. In one focus group in Elodrato, it was also reported that the amount of food households were able to buy had decreased. In all focus groups it was reported that households could not afford to purchase zebu a type of cattle used as an informal banking system. Reasons for this included lower profits from the opening of the national lobster fishing season, lower income from lobster fishing in general and lower overall household income. There were no reports of increased immigration from or emigration to the regional capital of Fort Dauphin (Table 4).

Table 4. Impacts of COVID-19 on household income reported during focus groups (n=10).

Impact	Percentage of focus groups
Lower household income from lobster fishing	100.0
Insufficient overall household income	100.0
Changes in household spending habits	100.0
Zebu purchase	0.0
Increased immigration from Fort Dauphin	0.0
Increased emigration to Fort Dauphin	0.0

3.2 Shopping Basket Survey

In all communities the majority of shopping basket items increased in price, the highest percentage of items that increased in price was observed in Elodrato 100.0%, followed by Sainte Luce 87.5% and Itapera 70.8%. In general, the percentage increase in the price of items was not consistent between communities. In Elodrato all staple foods increased, in Sainte Luce only stock cubes did not increase and in Itapera onions, stock cubes, curry and pepper powder and salt did not increase. Red kidney beans, white kidney beans, rice and cassava increased in price by more than 36.0% overall. This is particularly significant as these four foods make up a significant part of the diet of the three communities surveyed and in the wider Anosy region. All non-staple items, except for a small biscuit in Itapera and Sainte Luce also increased. During focus groups it was reported that households are now prioritising purchasing only staple foods. All household goods increased in price except for a bar of soap in Itapera and Sainte Luce. The price rise for a bar of soap in Elodrato is particularly significant as frequent handwashing with soap helps to prevent the spread of the COVID-19 virus (Table 5).

Table 5. Mean change in price of items present in shops between communities following COVID-19 (n=20).

	Item	Elodrato	Itapera	Sainte Luce	All
Staple Foods	Cup of rice	34.2	42.5	37.4	37.1
	Cup of red kidney beans	55.2	22.5	28.4	38.4
	Cup of white kidney beans	52.1	30.0	27.3	38.3
	Cup of flour	24.3	6.7	22.5	19.5
	Packet of spaghetti (brand mamasoa)	31.0	9.9	12.7	19.1
	Pile of onions	93.8	0.0	11.1 ¹	40.5
	Basket of cassava	46.25	5.6 ¹	33.0	36.4
	Stock cube (brand Jumbo)	39.6	0.0	0.0	15.1
	Box curry powder (brand Taf)	36.3	0.0	17.1	21.1
	Box pepper powder (brand Taf)	36.3	0.0	14.3	20.0
	Bag of salt	43.8	0.0	27.8	28.6
	Bag of sugar	29.0	7.1	16.6	19.8
	1l of cooking oil	30.3	28.6	33.0	31.1
Non-staples	Packet of biscuits (brand 4x4be)	19.7	27.8	7.4	16.9
	Small biscuit (brand Bolo)	67.9	0.0	0.0	25.0
	1.5l soft drink (brand Coca-Cola or Bonbon Anglais)	20.4	9.9	21.0	18.4
	0.65l bottle of beer (brand THB)	28.1	14.3 ²	7.1	18.8
	0.25l bottle of dark rum (brand Dzama)	19.5	25.0	23.1	22.1
	Single cigarette (brand Goodluck)	74.0	50.0	43.75	60.4
Household goods	Bar of soap	74.0	0.0	0.0	28.1
	30g bag of washing powder (brand Vaoline)	64.3	4.2 ¹	16.7	30.8
	1 aa battery	27.1	11.1	28.9	25.5
	1 d battery	32.4	9.2	21.1	24.2
	1l of petrol	32.9	12.5	20.5	23.7
Total items increased in price (%)		100.0	70.8	87.5	100.0

¹. Item increased in price in only one of the shops surveyed in the community.². Item only present in one shop in the community, change not expressed as mean.

4 Discussion

The results presented in this report demonstrate the significant socioeconomic impacts of COVID-19 that small-scale lobster fishing communities in southeast Madagascar were faced with during the first six months of the pandemic. The cost of food and other household goods have increased significantly. This is indicative of the rising costs of living at a time when lobster fishing and other livelihoods have been significantly disrupted reducing overall household income and forcing households to prioritise spending money on food and healthcare. The socioeconomic impacts reported are likely to continue after the health emergency has subsided and will be exacerbated by low economic resilience, poverty and a lack of alternative livelihoods. The socioeconomic impacts will also in turn exacerbate poverty and economic resilience. These impacts also have the potential to halt or even regress progress that communities have made towards safeguarding their fisheries through LMMA establishment. Economic necessity, to provide for families in the short term, may prevent fishers from continuing to adopt more sustainable fishing practices. Project Oratsimba will continue to support the communities of Elodrato, Itapera and Sainte Luce in community-based fisheries management whilst monitoring the ongoing socioeconomic impacts of the COVID-19 pandemic.

5 Acknowledgements

This study was conducted as part of Phase III of Project Oratsimba funded by the Darwin Initiative. Special thanks must go to the community members of Elodrato, Itapera and Sainte Luce who participated in this study. Thanks must also go to the Project Oratsimba team for their support during data collection.

References

Healy T, 2018. The Deep South: Socio-economic, historic, cultural, political, anthropological and environmental analysis of Madagascar's southern Region. World Bank, Antananarivo.

Long, S., Thurlow, G., Jones, P. J. S., Turner, A., Randrianantenaina, S. M., Gammage, T., Savage, J. and Ndriamanja, J. R. (2019). Critical analysis of the governance of the Sainte Luce Locally Managed Marine Area (LMMA), southeast Madagascar. *Marine Policy*. <https://doi.org/10.1016/j.marpol.2019.103691>

Savage, J. (2020). A Baseline Socioeconomic Assessment of Lobster Fishing Communities in Southeast Madagascar. Available at:
https://madagascar.co.uk/application/files/7515/8684/3984/Baseline_Socioeconomic_Assessment.pdf