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## EMERGENCY SUPPORT TO FISHER FOLKS TO RESUME SUSTAINABLE MARINE FISHING AFFECTED BY CYCLONE IDAI

March 2022

SDGs:



Country:

Mozambique

Project Code:

TCP/MOZ/3702

FAO Contribution:

USD 500 000

Duration:

20 May 2019 – 31 December 2021

Contact Info:

FAO Representation in Mozambique  
FAO-MZ@fao.org

### Implementing Partner

Ministry of Sea, Inland Waters and Fisheries (MIMAIP).

### Beneficiaries

Fisherfolk.

### Country Programming Framework (CPF) Outputs

Priority Area C: Increase the resilience of livelihoods to climate change, threats and crises.



### BACKGROUND

On the night of 14 March 2019, tropical Cyclone Idai made landfall roughly 50 km north of the city of Beira in the Sofala province of central Mozambique. Torrential rains and strong winds battered Sofala, as well as the provinces of Zambezia, Manica and Inhambane. Heavy inland rainfall prior to the cyclone had caused flooding in downstream lowlands and deltas, and in particular in coastal and estuarine regions of the country, resulting in a significant rise in the water table even before Idai made landfall. The severe flooding brought about by these extreme weather events devastated fishing communities in remote areas of these provinces, endangering their livelihoods and negatively impacting food security and nutrition.

A rapid assessment carried out by FAO and the Regional Government Fisheries Enforcement Office of Mozambique determined that the relief efforts after Idai had been primarily concentrated in high-density population areas around Beira and further inland, whereas the remote communities who needed assistance the most had received little to none.

This project was designed to bring immediate relief to these communities through the provision of the equipment and materials required to allow them to resume their fishing activities as quickly as possible. Special care was taken to support the retention of community structure, culture and dignity, as micro-economic networks between fishers and livestock and agriculture producers exist in these areas, empowering local actors to contribute towards the food and nutrition security of their communities.

### IMPACT

The results of this project are expected to lead to enhanced food and nutrition security of coastal populations affected by Cyclone Idai, while simultaneously building resilience to future climatic shocks and stressors in Mozambique.

### ACHIEVEMENT OF RESULTS

The project's desired Outcome was to support local fisherfolk to resume their activities after the devastation brought by Cyclone Idai, thereby boosting their food security and incomes while retaining the community structure. At the time of reporting, an increase in fish production had been reported by the Ministry of Sea, Inland Waters and Fisheries (MIMAIP); however, further follow-up actions to support the sustainability of the project results are required.

The achievement of the Outcome was supported by two Outputs. Under the first Output, 441 sets of gear, including hooks, lines, gillnets and trawls were procured and delivered to selected beneficiaries. An additional 1 000 fisherfolk benefited from collaboration with FAO project OSRO/MOZ/905/USA, entitled "Emergency livelihood support to the most vulnerable populations affected by tropical cyclone Idai", through an e-voucher system that allowed them to purchase fishing gear.

A total of 17 new Moma fishing boats were constructed and distributed. The boats came with anchors, ropes and safety equipment. Fisherfolk also benefited from training on safety at sea and safe boat handling.

The focus of the second Output was the improvement of post-harvest practices for increased income generation. Under this Output, 180 cool boxes were delivered, and the Sambazou market, which had been severely damaged by Cyclone Idai, was rehabilitated and equipped with a new photovoltaic system for ice-making and four freezers. It is estimated that 2 500 fisherfolk, processors and fish traders benefited from the rehabilitation of the market. More training was provided under this Output, which focused on post-harvest loss management, hygienic practices, business management skills and savings schemes. A total of 420 people (including 84 women) benefited from this training.



## IMPLEMENTATION OF WORK PLAN AND BUDGET

The implementation of the project experienced some significant delays. Reasons include the departure of the Lead Technical Officer (LTO) after the first year and the coronavirus disease 2019 (COVID-19) pandemic, which restricted travel and the organization of workshops/training and caused delays in the overseas transport of procured goods. Other delays were caused by issues with suppliers and implementing partners as well as technical issues with some of the boats that were procured. To accommodate for these delays, three no-cost extensions were requested and approved.

All of the project activities were carried out within the planned budget.

One of the original aims of Output 1 was to repair damaged canoes; however, it was determined that they could not be repaired owing to certain government regulations. This activity was therefore revised to support the construction of 17 wooden Moma boats, which benefited a total of 68 fishers.

Under Output 2, 900 cool boxes to support effective post-harvest practices were meant to be distributed, but this target was reduced to 180. The change occurred based on the recognition that the Sambazou fish market was in dire need of rehabilitation, so funding was redirected to that end.

Risks encountered were generally mitigated well by the project team of FAO Mozambique. The risks related to technical (boat and safety equipment) procurement issues were addressed by the LTO, who applied international safety recommendations. The construction of boats was monitored jointly with local authorities to prevent potential issues. Environmental risks related to fishing gears were prevented by consulting national laws and regulations. During implementation, seven team meetings were organized to monitor the work plan.

## FOLLOW-UP FOR GOVERNMENT ATTENTION

Basic safety training should be repeated at least every five years, if not more frequently, owing to the prevalence of maritime accidents and fatalities in small-scale fisheries in Mozambique.



## SUSTAINABILITY

### 1. Capacity development

National management strategies and policies support the sustainability of the project's results. Institutional capacity was improved through the technical training of District Services for Economic Activity (SDAEs) about safety at sea. The close involvement of government authorities at different levels of project implementation created the conditions for achieving the project results and a basis for designing a follow-up development project.

The project was conducted in partnership with local governmental authorities, Fisheries Community Councils (CCPs), the private sector, and other projects. These partnerships will ensure sustainability and support the project's impact.

The project had a solid strategy and follow-up actions based on the frequent monitoring of activities in the field and frequent interaction with the involved local government authorities at province and district level.

### 2. Gender equality

The project activities were implemented according to the needs of affected fisherfolk and within the available budget. Women were encouraged to participate in training sessions, especially those related to fish quality/post-harvest training, and many did so. The number of women at these sessions was in line with expectations.

Among the beneficiaries trained, the representation of women was almost 18.5 percent. The final decisions regarding the selection of beneficiaries for the training sessions and for the distribution of materials was made by local government authorities (at district level) and CCPs.

### 3. Environmental sustainability

The project activities were carried out with a focus on good fishing practices and provided fishing gears that were compliant with national regulations.

### 4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project contributed to the improvement of working conditions in rural areas by making fishing gears available, which supported an increase in production and an improvement in safety and nutrition for local families. Moreover, the safety and stability of the vessel design, as well as the provision of safety equipment were core measures embedded in the project to support safer working conditions for fishers.

### 5. Technological sustainability

The project did not introduce new technology. Instead, the fishing gears and boats provided, as well as the training carried out, were all easily accessible for the beneficiaries. They were familiar with the type of gears and boats, and the training was conducted in simple and practical ways.

The project contributed to the development of knowledge, skills, resources and good practices. With the inputs provided and the training received, the beneficiaries were prepared to carry out their activities in a more responsible, resilient and safe manner in view of the hazards encountered at sea, future cyclones and other harsh weather conditions.

Capacity building was one of the main project objectives so that fisherfolk could continue their activities without additional technical assistance and earn an income from fishing or the trading of fish.

### 6. Economic sustainability

Project OSRO/MOZ/905/USA supported the beneficiaries in Sofala province through an e voucher system. Moreover, a fishery infrastructure inventory was prepared to support future investments by the government and resource partners in climate-proof infrastructure.

The products provided by the project are accessible to the beneficiaries. The safety-at-sea training material can be downloaded for free from the FAO website in Portuguese, and all other training materials were shared with the government for dissemination/use.



### DOCUMENTS AND OUTREACH PRODUCTS

- ❑ **Marcelino, M.** (2019). *Technical reporting of the photovoltaic system installed in the Sambazo fish market in the district of Muanza. Beira.*
- ❑ **Momade, F.** (2019). *Bicycle with cool boxes - Technical Specification.* Maputo. 4 pp.
- ❑ **Momade, F.** (2019). *Cool boxes - Technical Specification.* Maputo. 2 pp.
- ❑ **Momade, F.** (2019). *Fishing gears (gillnets, longline and handline) - Technical Specification.* Maputo. 15 pp.
- ❑ **Senete, J.** (2019). *Segurança para os pescadores de pequena escala no mar.* Rome. 100 pp. (<https://bit.ly/36F2H6k>).
- ❑ **Davy, D.** (2020). *Building Moma fishing vessels in Mozambique - Technical Specifications.* London.
- ❑ **Senete, J. & Momade, F.** (2021). *Infrastructure inventory report using the fishery infrastructure assessment tool model - Data sheets of infrastructures inventory.* Maputo.
- ❑ **Senete, J. & Momade, F.** (2021) *Training: Summary of Modules for Good Hygiene Practices on Fishing, Reduction of Post-harvesting Losses, Business Management, and Savings and Revolving Credit.* Maputo. 15 pp.



## ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

<b>Expected Impact</b>	<b>Enhance food and nutrition security of coastal populations affected by the cyclone, while laying the foundation to build resilient livelihoods against future climatic shocks and stressors</b>		
<b>Outcome</b>	Fisherfolks identified as the most affected by the Cyclone Idai resume sustainable fishing, enabling them to have adequate food and earnings for themselves and their families, while retaining community structure		
	<b>Indicator</b>	<ul style="list-style-type: none"> <li>– Percentage increase in volume of quality fish caught through sustainable practices.</li> <li>– Reduction of percentage in fish post-harvest loss per fisher per fishing day.</li> </ul>	
	<b>Baseline</b>	<ul style="list-style-type: none"> <li>– 0</li> <li>– 0</li> </ul>	
	<b>End Target</b>	<ul style="list-style-type: none"> <li>– 20 percent – data collection of the landed volume of quality fish through sustainable practices. The official capture fisheries production statistics of Ministry of the Sea, Inland Waters and Fisheries (MIMAIP) in the districts of Muanza, Dondo, Búzi and Beira, from January to June 2019, amounted to 18 995 tonnes. The capture fisheries production in the period January to June 2020 was 23 615 tonnes; corresponding to a growth rate of around 24 percent.</li> <li>– 35 percent – data collection of post-harvest losses should be established and monitored. This indicator could not be measured due to lacking data.</li> </ul>	
<b>Comments and follow-up action to be taken</b>	The project was implemented according to the planned activities and budget.		
<b>Output 1</b>	Resume sustainable marine fishing		
	<b>Indicators</b>	<b>Target</b>	<b>Achieved</b>
	<ul style="list-style-type: none"> <li>– No. of fisherfolk re-equipped with compliant fishing gear.</li> <li>– No. of damaged boats repaired (new fishing boatbuilding).</li> <li>– No of fisher folk groups trained on improved practices.</li> </ul>	<ul style="list-style-type: none"> <li>– 730</li> <li>– 17</li> <li>– 99</li> </ul>	Yes
<b>Baseline</b>	<ul style="list-style-type: none"> <li>– 0</li> <li>– 0</li> <li>– 0</li> </ul>		
<b>Comments</b>	<p><u>Fishing gears</u>: The project planned the delivery of 730 sets of gear (e.g. hooks, lines, gillnets and trawls). Eventually, 441 were directly procured by the project for beneficiaries (i.e. 427 complete gillnet sets and 14 sets of longlines), and they were delivered in September 2020. The original target was not achieved because the market prices between approval and implementation changed. The project team held many technical meetings with district, provincial and central fisheries authorities to discuss this matter. In light of the emergency context, project staff were also able to assist an additional 1 000 fisherfolk in Sofala province with complementary funding resources from the FAO project OSRO/MOZ/905/USA, entitled “Emergency livelihood support to the most vulnerable populations affected by tropical cyclone Idai”, through the setup of an e-voucher system to purchase fishing gear in the districts of Beira, Dondo and Búzi.</p> <p><u>Building new fishing boats</u>: This indicator was revised when the project commenced. Damaged canoes could not be repaired; this was against government regulations. Instead, the project constructed 17 wooden Moma type boats, benefiting a total of 68 fishermen. The boats were supplied with anchors, ropes and basic safety equipment, including life jackets for all crew members. Delivery took place in November/December 2021. The purchasing of new Moma boats instead of repairing damaged canoes had a direct implication on the budget; therefore, the target was revised at the beginning of the project.</p> <p><u>Training</u>: The provision of training to fisherfolk on safety at sea and safe boat handling was carried out in close collaboration with maritime authorities in November 2021. A total of 99 people (including nine females) benefitted from this training.</p>		

Activity 1.1	Identification by the Provincial Directorates of the MIMAIP, in collaboration with the Fisheries Community Councils (CCP), of fisherfolks in need of urgent repair or replacement of fishing gears and boats in the Province of Sofala.	
	Achieved	Yes
Activity 1.1	Comments	Local authorities compiled lists of affected fisherfolk. This data was merged with the project's implementation strategy to prioritize the use of funds for reaching the most affected beneficiaries. It also bought forth opportunities for training beneficiaries in the districts of Muanza, Búzi, Dondo and Beira. Considering that it would be important to ensure the transparency and equity of beneficiary selection, the eligibility criteria were: (i) being an active artisanal fisher with extensive experience; (ii) being a suitable person and of recognized merit at community level; (iii) being an active member of a community-based organization; (iv) being the officially documented owner of a boat with or without an engine that had been affected by tropical depressions or cyclones; (v) having a fishing license; and (vi) being an exemplary fisher – i.e. not involved in illegal fishing activities. The criteria were approved by the Provincial Executive Council and the selection process was led by the CCPs and SDAEs.
	Provision to the identified fisher folks of appropriate fishing gears (trawl nets, lines, hooks, gill nets) compliant with national regulations	
Activity 1.2	Achieved	Yes
	Comments	Appropriate fishing gear was provided to the fisherfolk. More specifically, the project supported the procurement and distribution of a total 441 sets (i.e. 427 gillnets and 14 longlines, including 32 gillnets in the district of Muanza, 57 gillnets in Búzi, 162 gillnets and three longlines in the district of Dondo and 176 gillnets and 11 longlines in Beira). An additional 1 000 fisherfolk purchased gear thanks to complementary funding from the FAO project OSRO/MOZ/905/USA, entitled "Emergency livelihood support to the most vulnerable populations affected by tropical cyclone Idai", through the setup of an e-voucher system. This activity was supported by project consultants.
Activity 1.3	Under the supervision of a naval architect expert in artisanal fisheries, local boat builders rehabilitate damaged artisanal boats and build new ones (including marine transport vessels to move commodities)	
	Achieved	Yes
Activity 1.3	Comments	Initially, the project aimed to repair damaged canoes, but the conditions of the identified canoes were such that they could not be repaired – they had to be replaced completely. The authorities considered the canoes unsafe and opted for larger Moma boats. This had a direct implication on the budget, and therefore, the initial indicator was revised at the beginning of the project. After a competitive procurement process, it was possible to identify a local company in Sofala province to build 17 wooden fishing boats. The company selected was <i>AMA Equipamentos</i> , which hired local carpenters and boat builders. It is important to note that the Moma boat was selected and recommended by MIMAIP. In fact, Moma boats are commonly used by artisanal fishermen in Mozambique. They are promoted by the Mozambican fisheries sector for fishing in the open sea and are relatively safe and easy to navigate. The boats are based on traditional and typical local designs found in the coastal areas of the country. The technical specification characteristics include wooden hulls, with propulsion by oars, sails or engines. They are built by artisanal naval carpenters. A specialized naval architect drew technical specifications for this undecked wooden vessel of 23 ft (7 m) in length, based on the guidance and expertise of local project task force members. The technical drawings guaranteed the standard size and specifications, as well as stability and safety requirements. This was confirmed and approved by maritime authorities. A total of 17 fishing boats with the respective accessories and safety equipment were distributed to 17 beneficiaries of the four districts covered by the project, namely: Muanza (five boats), Buzi (four boats), Dondo (four boats) and Beira (four boats). All boats had sea trials with the maritime authority in order to ensure that they were safe for navigation. The primary eligibility criteria of the 17 beneficiaries were: (i) being a person of recognized merit at community level; (ii) being an active member of a community-based organization; and (iii) being an exemplary fisherman (i.e. not having been involved in illegal fishing activities). Beneficiaries received training on maritime safety before receiving the boats.

Activity 1.4	Training of registered fisherfolks on improved fishing practices		
	Achieved	Yes	
Comments	<p>The provision of training to the fisherfolk on safety at sea and safe boat handling was carried out in close collaboration with maritime authorities in November 2021. A total of 99 people (including nine females) received training.</p> <p>As the prevalence of maritime accidents and fatalities is a serious problem in small-scale fisheries in Mozambique, training on basic safety among fisherfolk is an important topic and should be repeated at least every five years, if not more frequently.</p>		
Output 2	Improvement of post-harvest practices for increased income generation		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> <li>- No. of post-harvesting equipment distributed.</li> <li>- Percentage of trained fisher folk apply new technologies and practices.</li> </ul>	<ul style="list-style-type: none"> <li>- 180</li> <li>- 2 500</li> <li>- 100 percent</li> </ul>	Yes
Baseline	<ul style="list-style-type: none"> <li>- 0</li> <li>- 0</li> </ul>		
Comments	<p>The initial target of the procurement and distribution of 900 cool boxes (post-harvest equipment) under the project was reduced to 180. The cool boxes were distributed as follows: 35 in Muanza, 60 in Búzi, 32 in Dondo and 53 in Beira.</p> <p>This is because a substantial part of the budget under Output 2 was redirected towards the rehabilitation of the <i>Sambazou</i> fish market, based on emergent needs and re-prioritization in the project's area of implementation. Therefore, some construction work, the establishment of a new photovoltaic system, ice-making equipment and four freezers were provided by the project. The estimated number of beneficiaries from this activity is 2 500 fisherfolk, processors and fish traders.</p>		
Activity 2.1	Provision of solar-powered ice-making equipment and cool boxes		
	Achieved	Yes	
Comments	<p>The <i>Sambazou</i> fish market was badly affected by Cyclone Idai. The project rehabilitated it and provided a more potent photovoltaic system. The project also increased the market's freezing capacity with four new freezers of 500 litres each. The newly established system is modern and powerful. It uses 200 AH gel batteries, is maintenance free, has 320-watt solar panels and inverters/controllers of 5 000 watts each with a total capacity 10 000 watts, and has an operating autonomy of three days without sunlight. The market now has five functioning refrigerators.</p> <p>Through the project, the market improved the handling and processing of fish, observing standards and hygienic/sanitary requirements, thus reducing post-harvest losses.</p>		
Activity 2.2	Training on post-harvest loss management, hygienic practices, business management skills and saving schemes		
	Achieved	Yes	
Comments	<p>The training took place as planned, with a high level of participation of the targeted groups (fisherfolk, processors and fish traders). The training was carried out in fishing centres in a free and open environment and was efficient and effective. This specific methodology made it possible to achieve the intended objectives, despite the challenges of the COVID-19 pandemic. In total, 420 people were trained (including 84 women) as follows: 91 people in Muanza, 105 people in Búzi, 124 people in Dondo and 100 people in Beira.</p>		

**Partnerships and Outreach**

For more information, please contact: [Reporting@fao.org](mailto:Reporting@fao.org)

**Food and Agriculture Organization of the United Nations**

Viale delle Terme di Caracalla  
00153 Rome, Italy