



# Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP)

GCP/RAS/237/SPA



# Timor-Leste

A visual guide of key baseline survey findings

# About RFLP

The Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP) sets out to strengthen capacity among participating small-scale fishing communities and their supporting institutions in Cambodia, Indonesia, the Philippines, Sri Lanka, Timor-Leste and Viet Nam. By doing so, RFLP seeks to improve the livelihoods of fishers and their families while fostering more sustainable fisheries resources management practices.

Funded by the Kingdom of Spain, the four-year (2009 - 2013) RFLP is implemented by the Food and Agriculture Organization of the United Nations (FAO) working in close collaboration with national authorities in participating countries.

RFLP focuses on a number of key areas as follows:

- Strengthening **co-management** mechanisms for sustainable utilization of fishery resources
- Improving **safety at sea** and reducing vulnerability for fishers and communities
- Improving the quality of fishery **post harvest** products and market chains
- Strengthening and diversifying **livelihood** income opportunities for fisher families
- Facilitating better access to **micro-finance** services
- Sharing knowledge and lessons learned both nationally and regionally

## RFLP in Timor-Leste

In Timor-Leste RFLP operates along the north coast, (including Atauro Island), the south coast and the Oecussi enclave. Amongst RFLP's objectives in Timor-Leste are to increase information available on coastal fisheries; support Government attempts to enhance fish landing centres; improve post-harvest actions and to boost safety at sea. The National Directorate of Fisheries and Aquaculture (NDFA) is the main implementing agency. The RFLP Coordination Office is located in the NDFA complex in Dili.

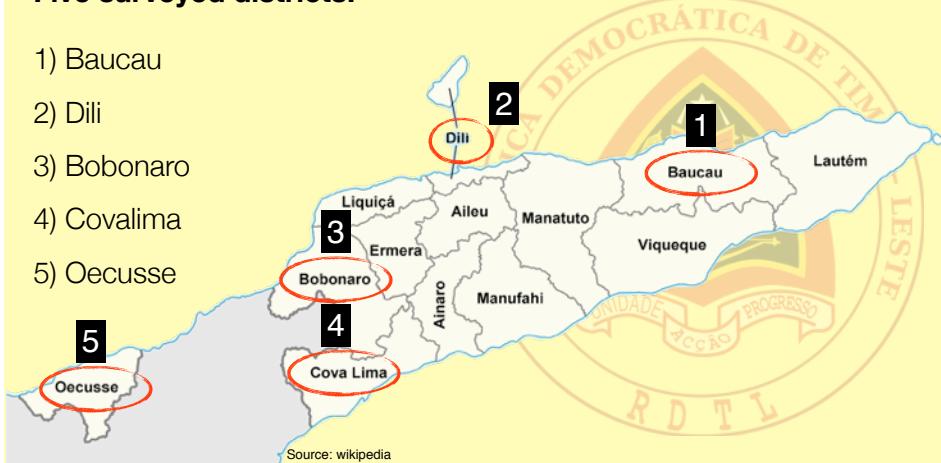
### The Timor-Leste baseline survey

The baseline survey in Timor-Leste took place from January to March 2011 and was conducted in Baucau, Dili, Bobonaro, Covalima and Oecusse districts. The survey methodology mixed qualitative and quantitative approaches including Focus Group Discussions, in-depth interviews and observations as well as household questionnaires.

The full version of the baseline survey can be downloaded from: [www.rflp.org](http://www.rflp.org)

#### Five surveyed districts:

- 1) Baucau
- 2) Dili
- 3) Bobonaro
- 4) Covalima
- 5) Oecusse



Dili



Baucau



Oecusse



Covalima



Bobonaro

# Socio-economic background

## General demographic data



### Baucau

- Population (2010): 111,484
- Area (km<sup>2</sup>): 1,600
- No. of sucos (villages): 59
- Average household size (2010): 5.2
- Growth rate (% pa): 1.69



### Cova Lima

- Population (2010): 53,063
- Area (km<sup>2</sup>): 1,225
- No. of sucos (villages): 30
- Average household size (2010): 5.4
- Growth rate (% pa): 2.07



### Oecusse

- Population (2010): 57,616
- Area (km<sup>2</sup>): 815
- No. of sucos (villages): 18
- Average household size (2010): 4.7
- Growth rate (% pa): 2.14



### Dili

- Population (2010): 234,331
- Area (km<sup>2</sup>): 372
- No. of sucos (villages): 31
- Average household size (2010): 6.7
- Growth rate (% pa): 4.8



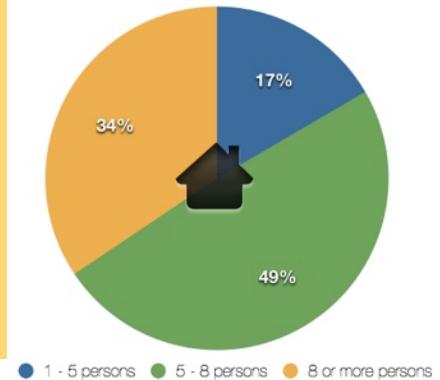
### Bobonaro

- Population (2010): 83,579
- Area (km<sup>2</sup>): 1,368
- No. of sucos (villages): 50
- Average household size (2010): 5.4
- Growth rate (% pa): 1.19

## RFLP survey specific data

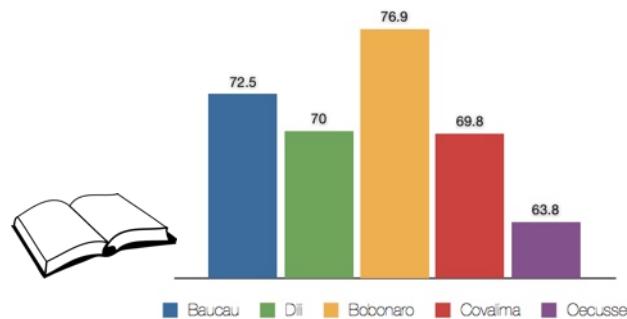
► Respondent households had up to 5 persons or more. This high number of individuals living in one household is a common trend in Timor-Leste coastal households and communities.

Average household size

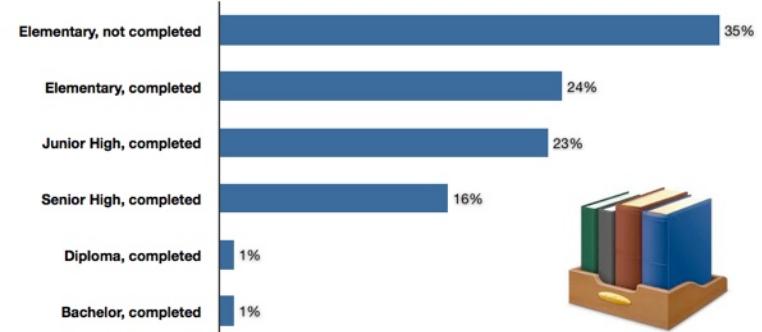


► Most respondents have attended elementary school with a small number completing high school.

Have attended school (%)

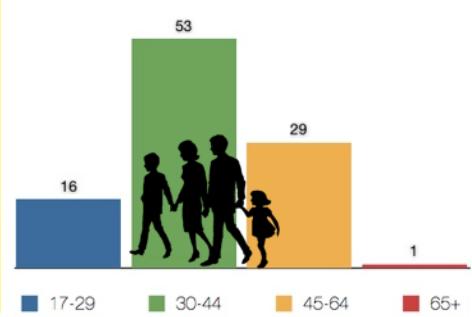


Education levels



► Most respondent household individuals were adults, ranging from 30 - 60 years of age. It is often the older men that perform fisheries related tasks while the women attend to domestic tasks.

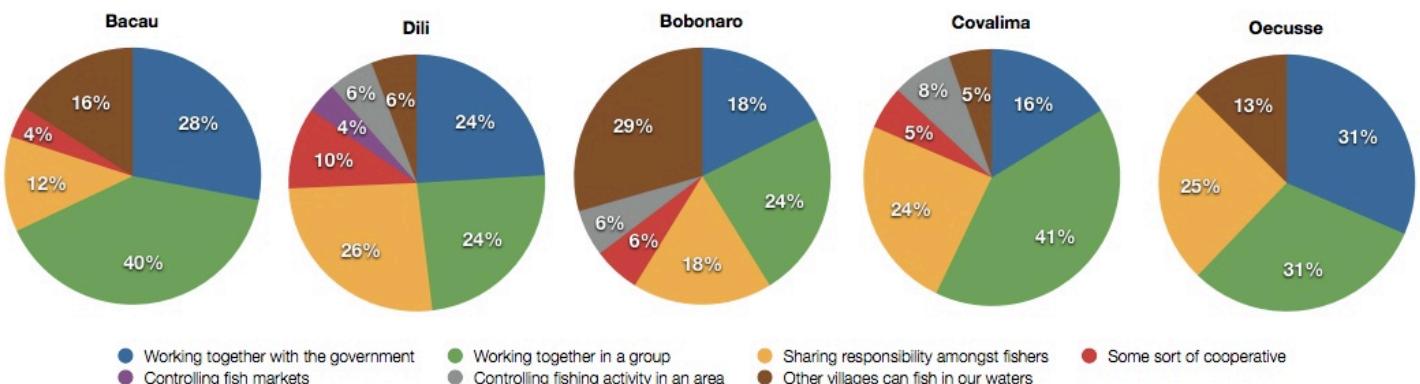
Average age group distributions (%)



# Co-management

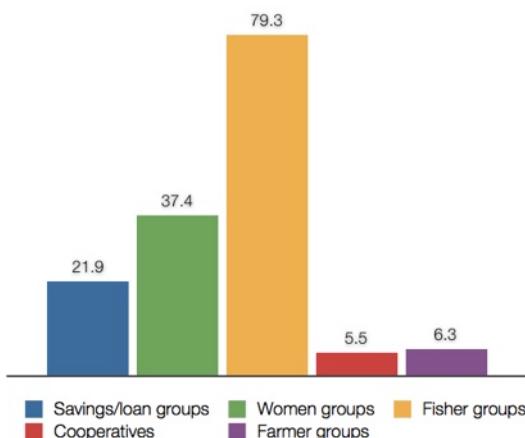
The concepts and terminology of co-management are poorly understood by the local fisher groups.

What fishers understand by the meaning of co-management

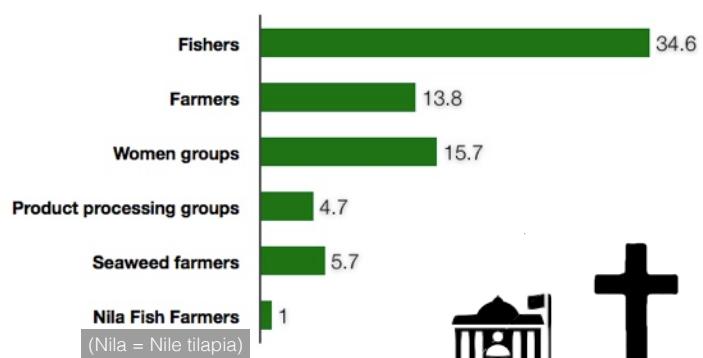


Fisher groups mainly tend to be informal in nature with local villagers working together in fishing activities. More formal groups appear to be in place mainly as a means to receive government/NGO assistance.

Types of community groups that exist in the study area (%)



Community groups receiving fisheries assistance (%)



Both the **government** and the **church** play significant roles in fisheries conflict resolution and its management in Timor-Leste.

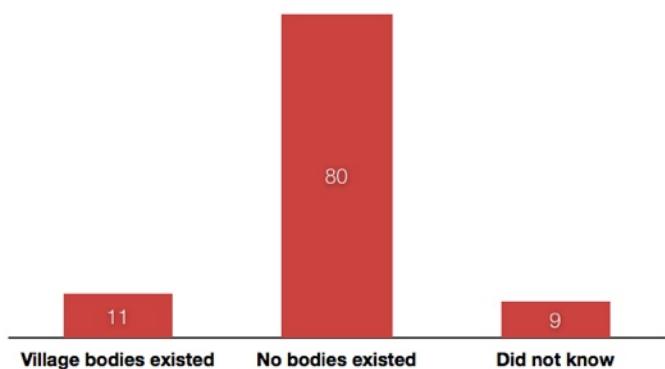


## Tara bandu - traditional knowledge

This traditional system of natural resource management exists in certain districts and protects an area from exploitative actions by specifying activities that are prohibited. *Tara bandu* is agreed amongst traditional local leaders and elders and operate as an unwritten agreement at both subdistrict and district levels.

There is generally no functioning system of customary law related to marine resource management in Timor-Leste. Very few fishers possessed knowledge on the existence of village bodies responsible for marine resources management.

Fisher perception on the existence of village bodies (%)



#### Common fishing conflicts:



> harvest sharing



> fishing gears



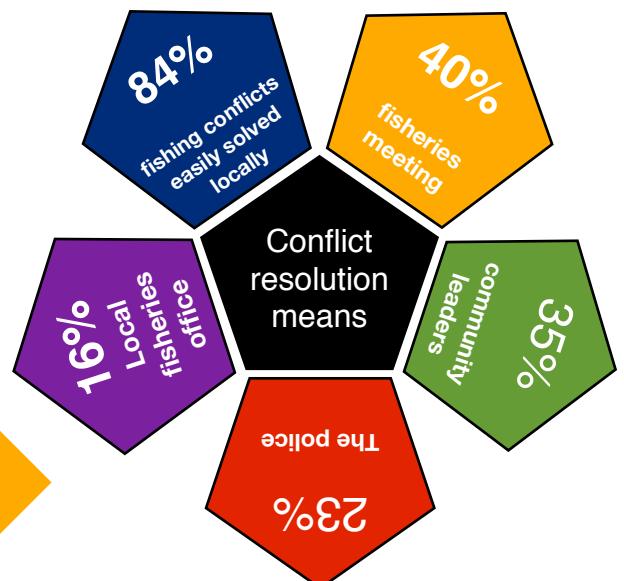
> fishing areas

#### Further inquiry revealed that:

- > Of the identified village bodies, only **11.1%** are currently active.
- > Very few written regulations/agreements exist relating to the utilization of marine resources.

Conflicts between local fishers are rare. Incidents are usually related to intrusion of fishers from different communities, destructive fishing methods and unequal harvest sharing.

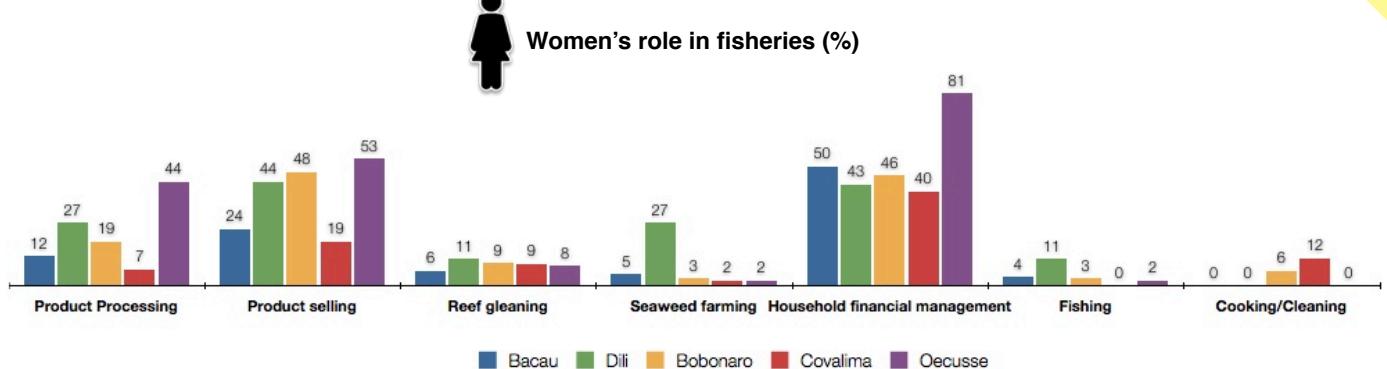
#### Fisher perceptions on conflict resolution



There is a clear separation of gender roles with regards to fisheries related activities. Aside from general domestic chores such as cooking, cleaning and childcare, women mainly manage household finances and are more active in the selling and processing of landings.

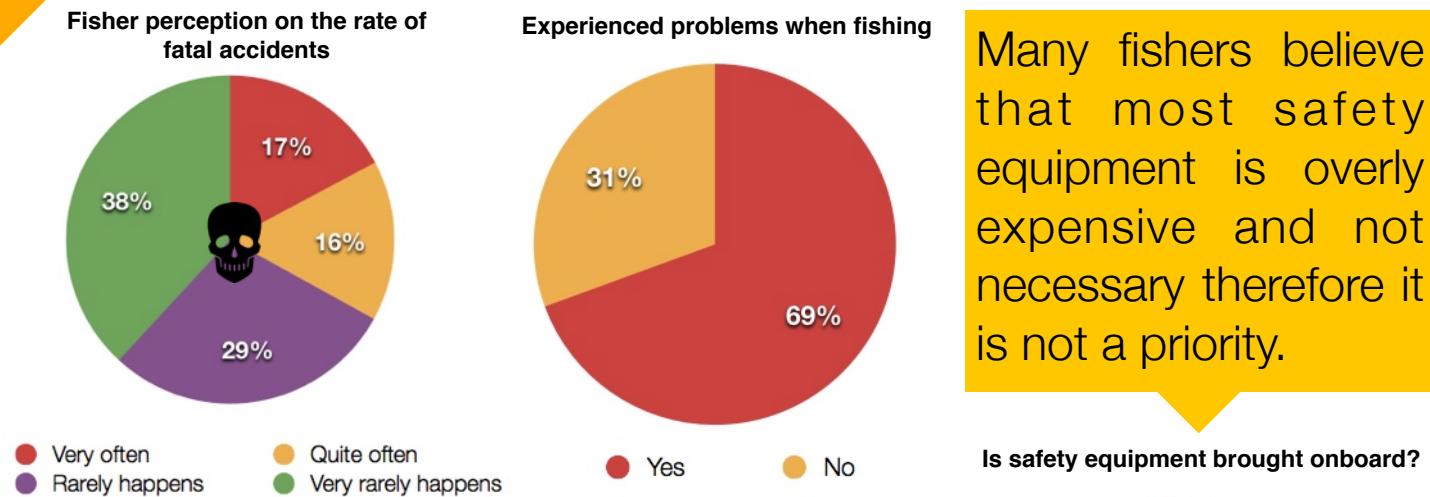


Women's role in fisheries (%)

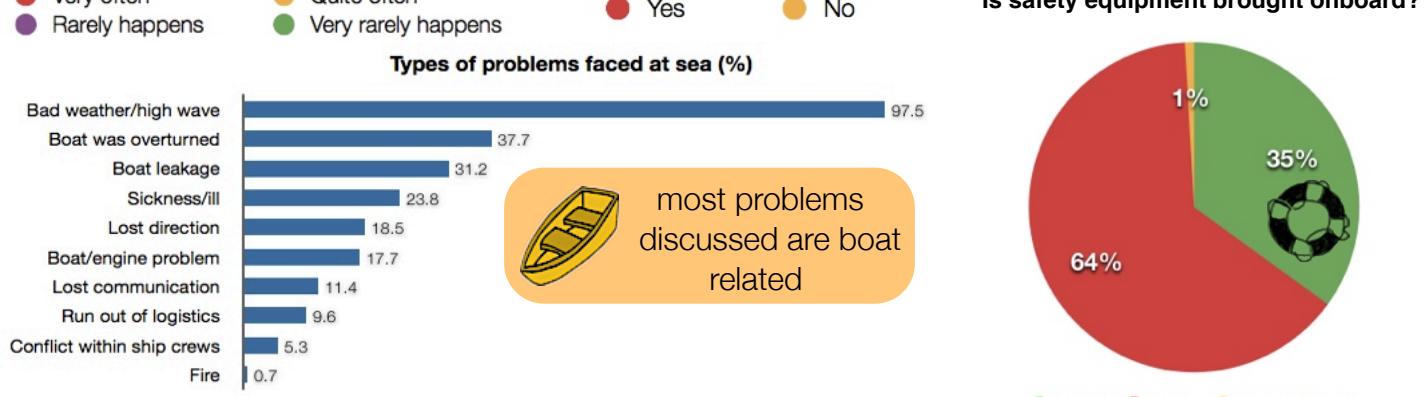


# Safety at Sea

Fishers frequently experience problems at sea but regard accidents, injury and death as part of their job although they acknowledged the impact of negligence. The perceived number of fatal accidents is low and therefore concern for safety is not a priority.

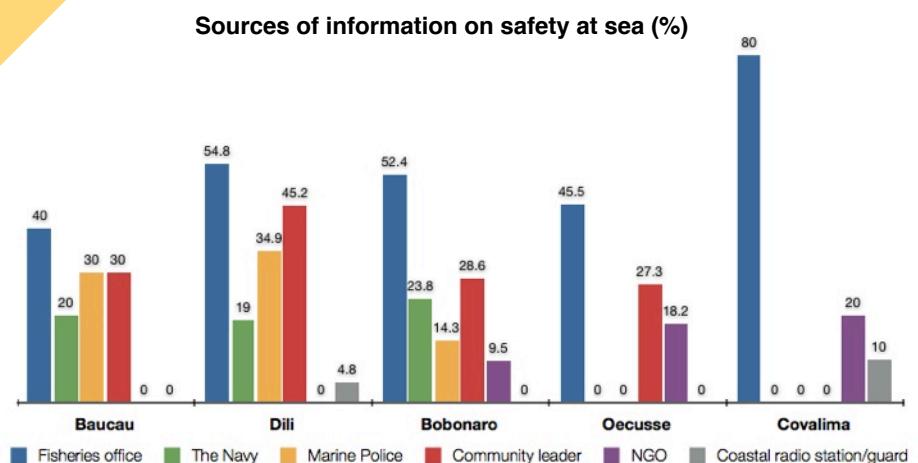


Many fishers believe that most safety equipment is overly expensive and not necessary therefore it is not a priority.

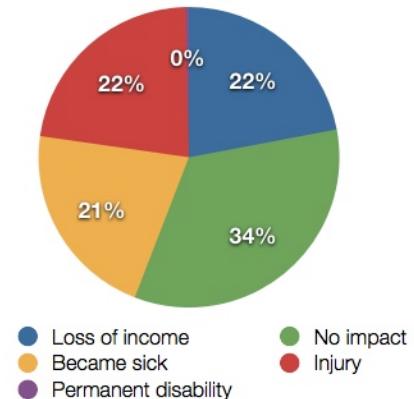


most problems discussed are boat related

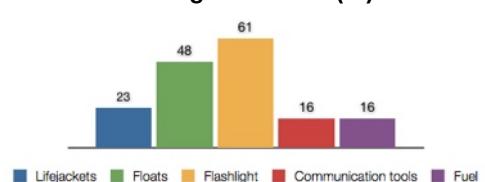
Fisheries offices are the main source of safety at sea information but access to reliable and meaningful weather forecasts is an issue declared and faced by fishers.



**Repercussions of fishing accidents**

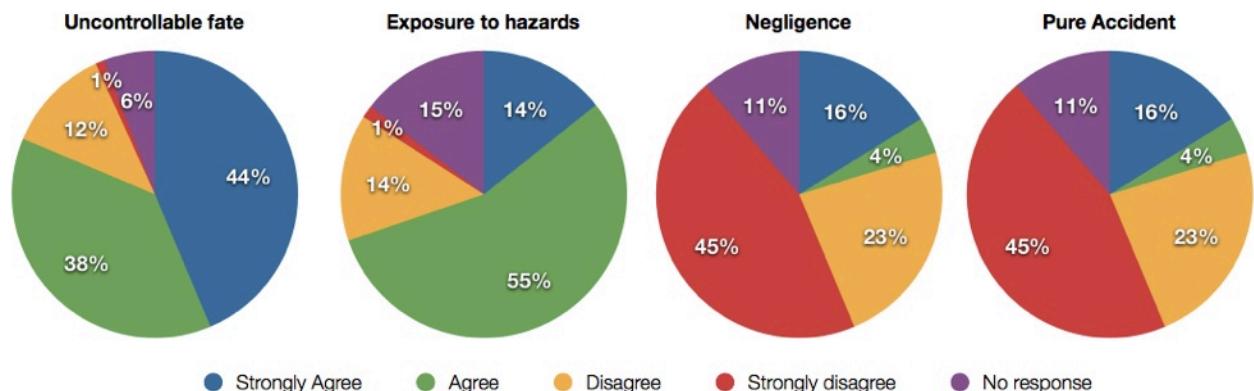


**Actual safety equipment brought onboard (%)**



Most fishing is conducted close to shore and in small non-motorised boats. If larger boats and engines extend fishing range, safety at sea becomes more of an issue for fishers.

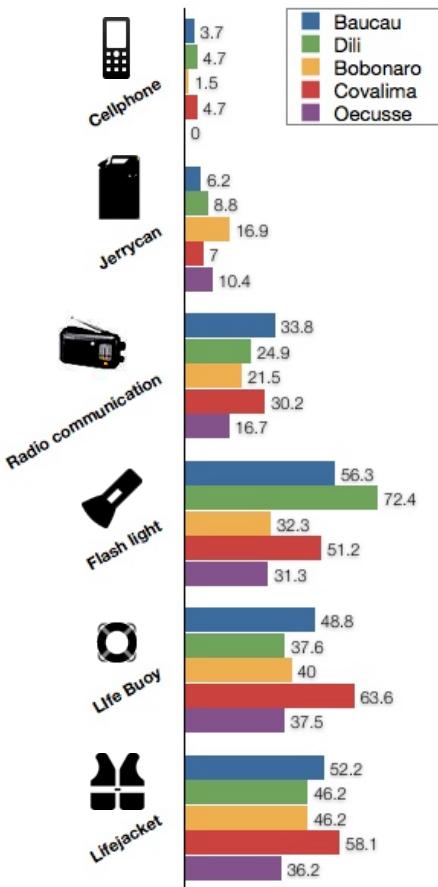
Fishers perception on the reasons behind fishing related accidents



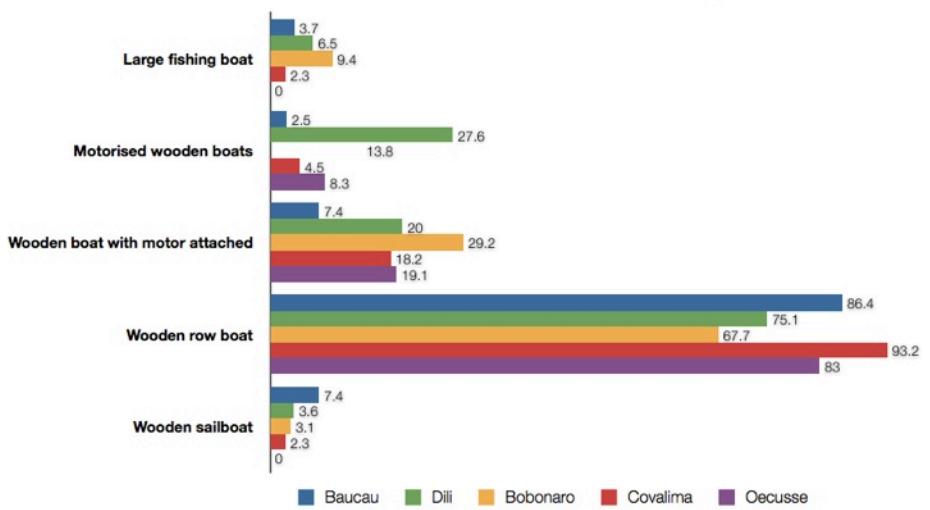
Flash lights, life buoys, and lifejackets are the three most important safety at sea items declared necessary by respondent fishers.

When problems actually occur fishers mostly seek help from other fishers. This response is based on the nature of fishing close to other fishers who also mostly use small wooden non-motorised boats.

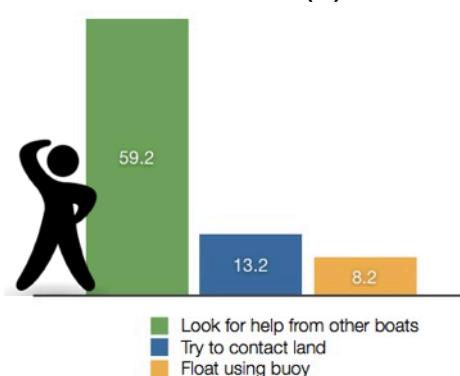
Perceived safety equipment needed (%)



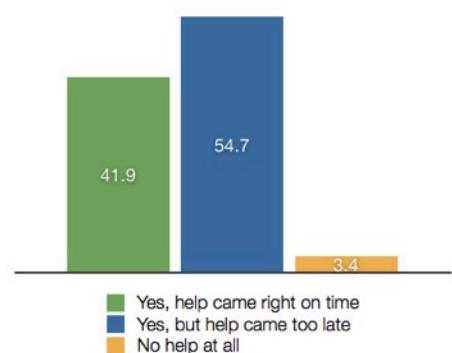
Types of vessels used in fishing (%)



Dealing with problems faced at sea (%)

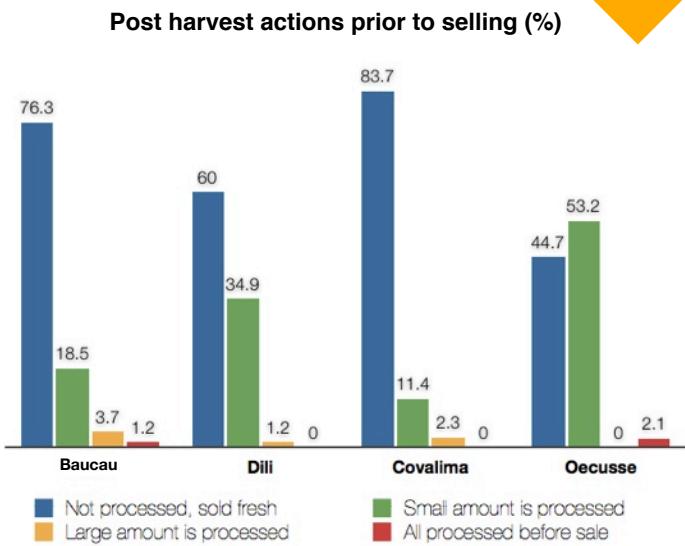


Helped received during accidents at sea (%)



# Post harvest and marketing

Most fish is unprocessed and sold fresh to traders. Sale of fish is often controlled by these traders with up to three stages of intermediaries. Little market and bargaining power is therefore in the hands of the fishers themselves.



Post harvest processing is mainly for household consumption purpose. However, post harvest activities are limited as most respondents preferred consuming fresh fish.

## The importance of traditional knowledge

**91.8%** ...of the knowledge on how to salt fish comes from traditional sources (learning from parents). Only a small number of fishers learn post harvest skills from their neighbours or from outside training courses.

### Main species landed throughout the study areas

48.3%



**Snapper**

36.3%



**Sardine**

23.8%



**Mackerel**

Icing is the main method utilized for preservation. However, ice is used by a very small number of fishers as it is expensive, with Dili being the only real source of production.



## Ice Shortage

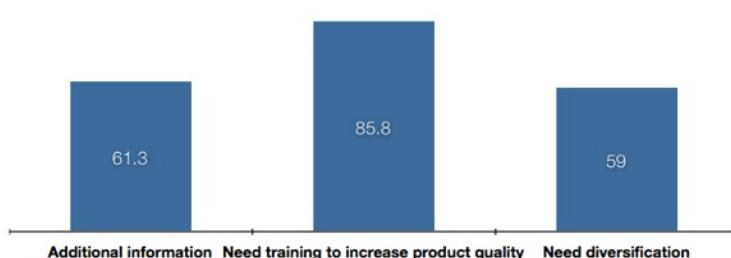
In Baucau - only 15% of the respondent fishers use ice. The low utilization rate of ice is mostly due to:

- ▶ Lack of local ice producers
- ▶ Production limited to small-scale
- ▶ Poor road conditions
- ▶ Long travel distances

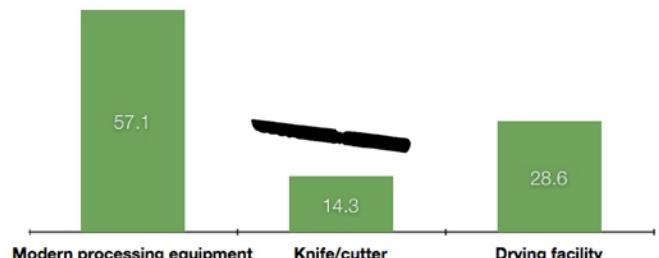
Some women have tried to make dried fish and market them in local *Laga Pasas* (market) but the products were not popular with consumers.

Many fishers declare that product quality is often poor. Training to produce higher quality goods and access to more modern processing equipment are the discussed means to improve post harvest capacity.

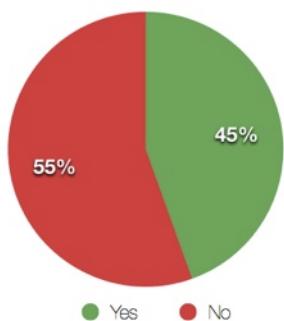
**Skills or information needed to improve post harvest product quality (%)**



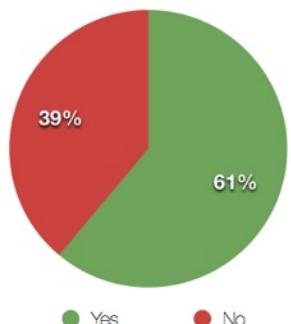
**What equipment/facility do you need the most? (%)**



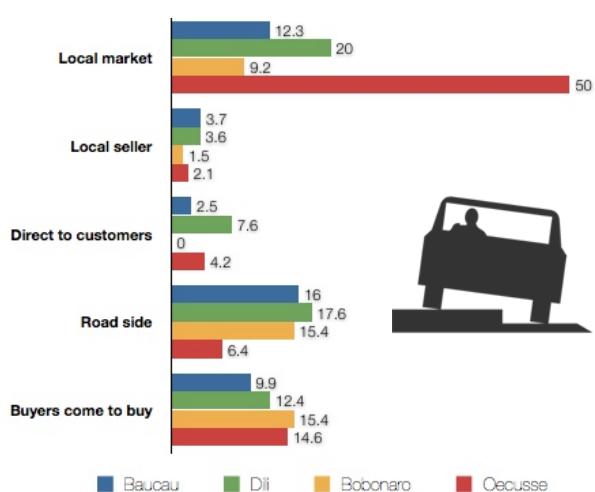
**Do you have access to modern processing tools?**



**Do you have adequate equipment to process products?**

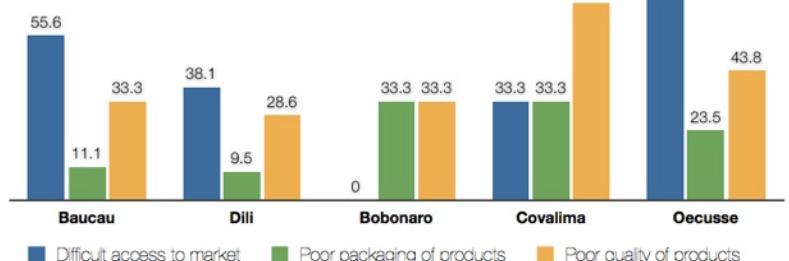


**Sales location of products (%)**



A variety of basic constraints are reported by most fishers including difficult physical access to market and the generally low quality of products for sale. Many also felt that inappropriate product packaging is a constraint on successful marketing.

**Problems in selling processed fish products (%)**



Local markets are the most popular locations to sell products. Road side sales are also a significant means of selling post harvest products.

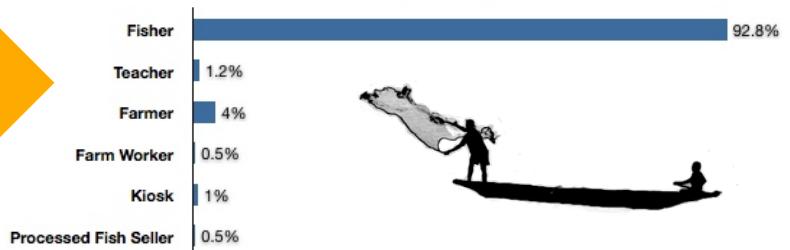


**Reef gleaning** to collect fish, molluscs and crabs during low tide is a popular activity. Undertaken by most coastal communities it involves both fishers and non-fishers as well as many women and children. Products are either sold or consumed fresh.

# Livelihoods

Fishing is the main occupation. Much of it is conducted along the coast within 2 km in reef areas and occasionally further off shore. December-February and July-August are the months with least fishing efforts depending on the district/subdistrict.

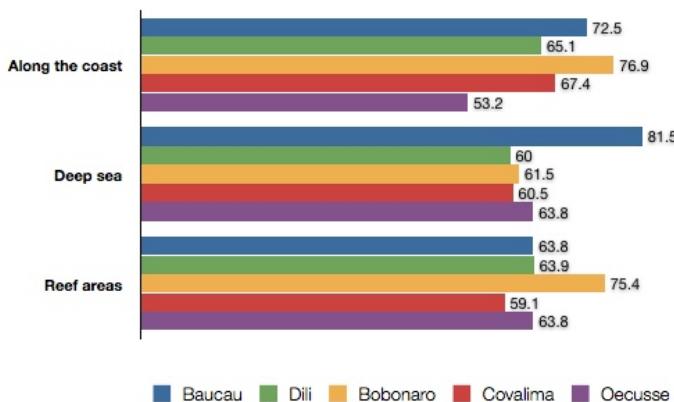
Main Occupations



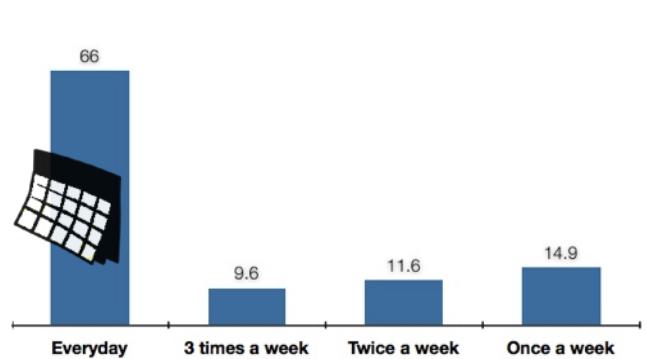
Fishers generally fished every day in groups of 2-3 for periods of 6-12 hours with hook-and-line the most common fishing method used by the respondent fishers.

Larger, motorised boats with better equipment increase the fishers' range and catch capacity. While many types of marine life are harvested including squid, prawns, crabs, snails and oysters, fish is the primary target with sardines and snapper being the main species caught and sold.

Major fishing areas (%)

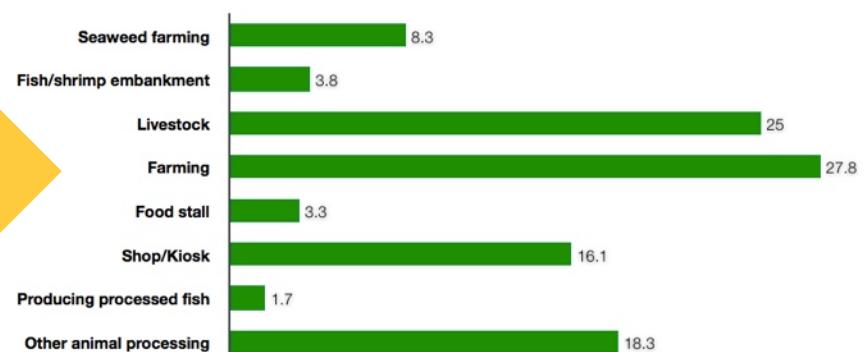


Frequency of fishers going to sea (%)



Farming and husbandry are the most common means of livelihood diversification declared by fishers. The mentioned alternatives are often agriculture/food related.

Potential activities to earn higher incomes (%)



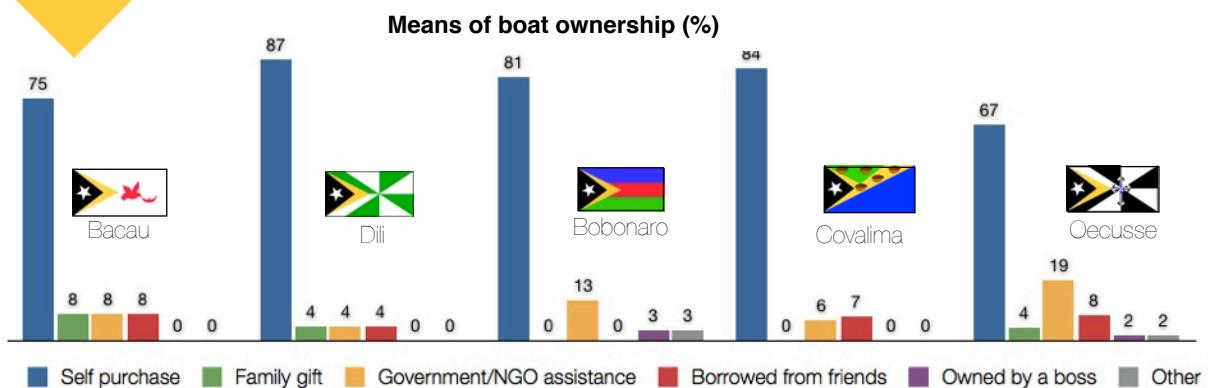
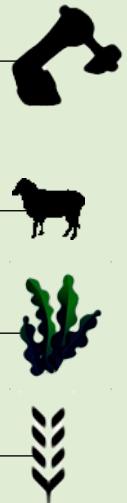
Monthly incomes range from less than \$100 to over \$600 but most earn between \$100 - \$300. About half of the respondent fishers also gain income from other sources such as seaweed farming.



Many fishers purchased/owned fishing vessels, indicating the high importance of fishing for families.

### Popular livelihood diversification means

- **Labour**
- **Husbandry**
- Reef gleaning
- **Seaweed farmer**
- Fish collector
- Private kiosks
- Informal vendor
- Building worker
- **Farmer**
- Peskador (Fish traders)



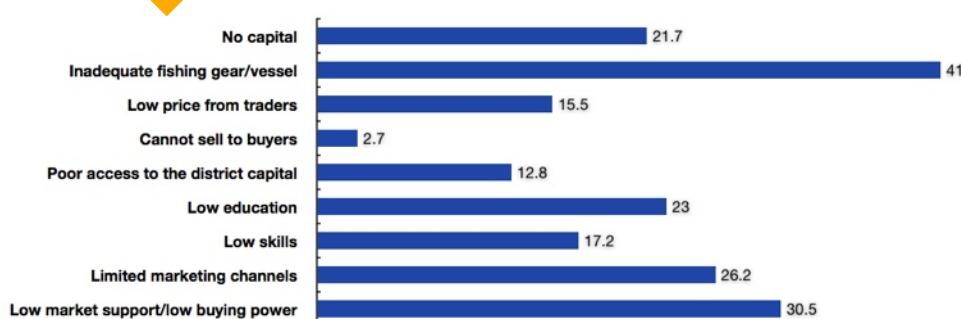
Inadequate fishing gear and non-motorised vessels are the major constraints for small-scale fishers to earn greater income. Lack of market support, marketing access and low education levels were other constraints that limit earning more.

### Climate change and small scale fisheries



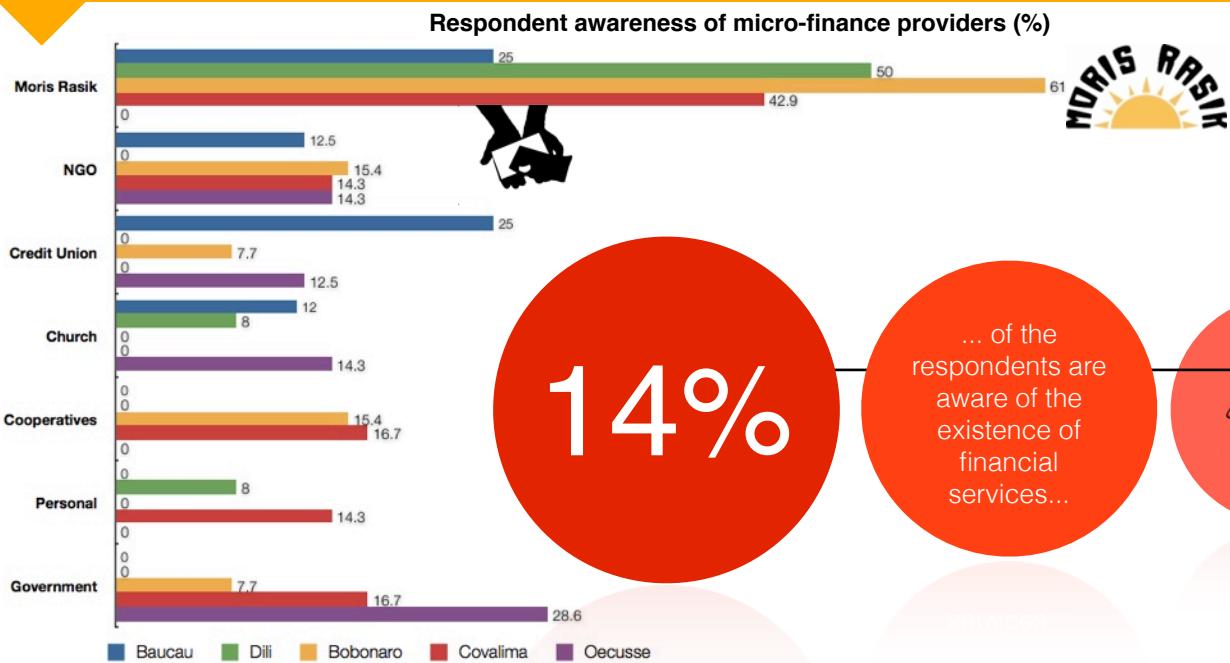
Fishers often discussed climate change and the perceived impact it was having on seasons. This was making the planning of fishing more and more uncertain. These changes in coastal resources, locations of fishing grounds and fishing periods have created uncertainties in coastal livelihoods.

### Constraints to earning income (%)



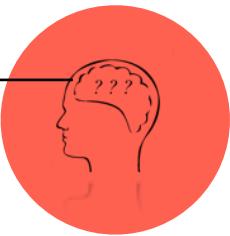
# Micro-finance

Financial institutions exist but are not well known and very few fishers use existing savings and loan services from financial institutions. An NGO, Moris Rasik, was the best known financial service provider.



14%

... of the respondents are aware of the existence of financial services...



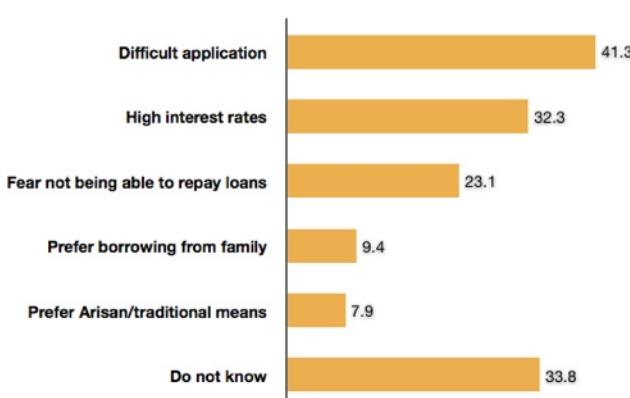
## Borrowing

The main barriers to fishers borrowing from formal institutions were not understanding the application process, high interest rates and fear of being unable to repay loans. Consequently, most fishers preferred to borrow from family or friends.

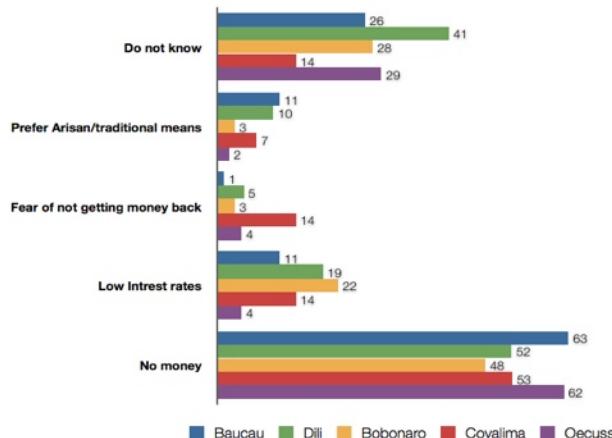
## Saving

Aside from lacking money, fishers do not save with existing financial institutions because they are unaware of the service, with many fishers fearing that savings at financial institutions are not safe.

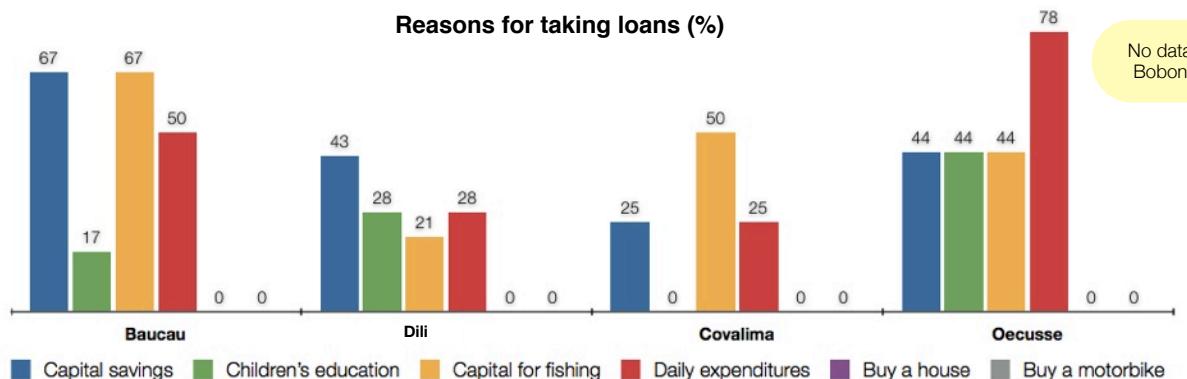
### Reasons for not borrowing from formal services (%)



### Reasons for not saving with formal services (%)

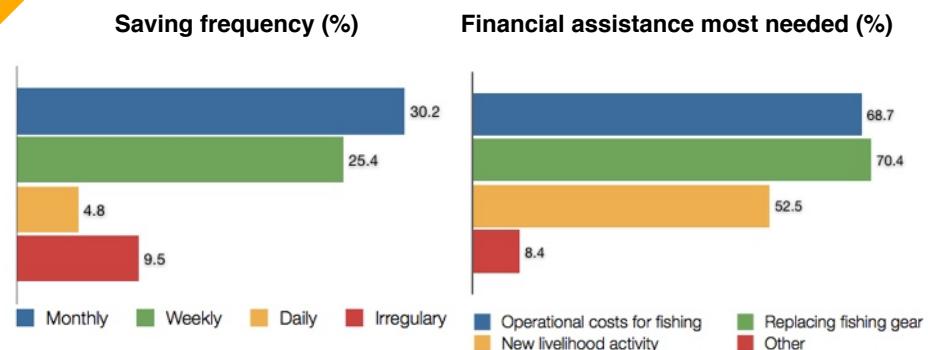


Fishers are generally very keen to access micro-credit services for capital (boats, engine, gear) and for working capital (for daily operations both in fishing and in other jobs such as farming) as well as for children's education and for daily expenses.

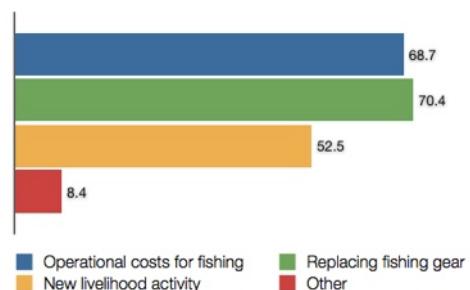


Saving on a month to month basis is the most common means for fisher households. Most of the savings would be spent on fishing-related expenditures, perceived as the main need for financial assistance.

**Saving frequency (%)**

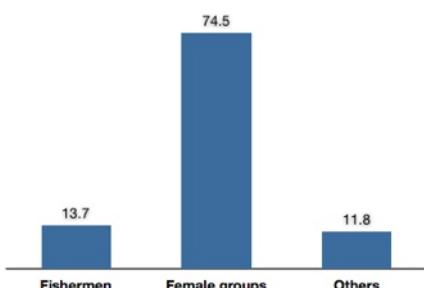


**Financial assistance most needed (%)**

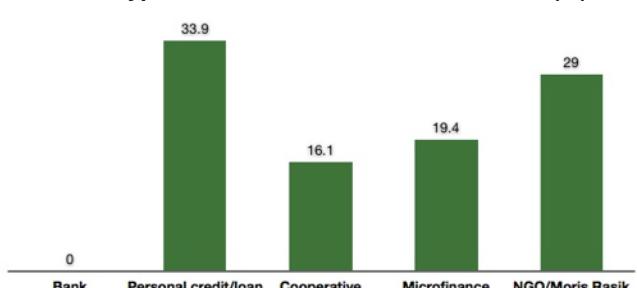


Women utilise micro-credit services more readily. Arisan was revealed to be a particular popular means of informally accessing credit for housewives.

**Groups using micro-credit services (%)**



**Types of financial services most used (%)**



## Arisan: the fixed lottery

Arisan is a social gathering where a group of friends and relatives meet monthly for a 'private lottery'. Each member in the group deposits a fixed amount of money into a pot, then a name is drawn and that winner takes home the cash. After having won, the winner's name is removed from the pot until each member has won and then the cycle is complete. Arisan is fair to all participants where each member wins an equal amount over the cycle and no interest is charged.

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