



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

GCP/RAS/237/SPA



## Cambodia

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.

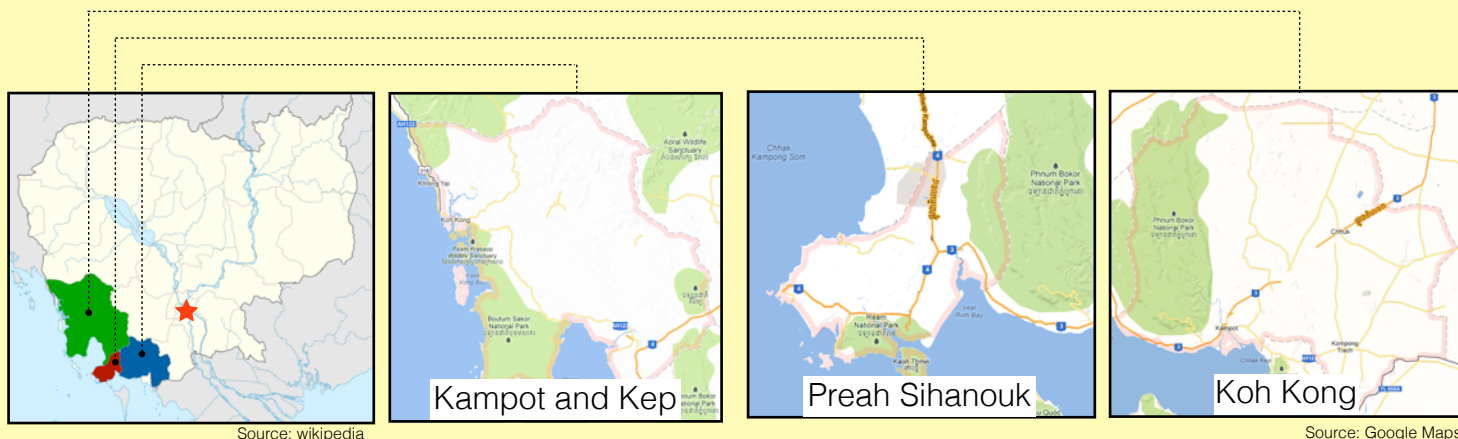
Funded by the Kingdom of Spain, the four-year (2009 - 2013) RFLP is implemented by the Food and Agriculture Organization of the United Nations (FAO) working in close collaboration with national authorities in participating countries.

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 Cambodia

RFLP undertakes field activities in Cambodia in coastal fishing communities in all four coastal provinces of the country: Koh Kong, Kampot, Preah Sihanouk and Kep. The coast line is 435 km long and there are approximately 10,000 people engaged in the marine fisheries sector. The RFLP project coordination office is based in Sihanoukville meanwhile the implementing agency in Cambodia is the Fisheries Administration (FiA) of the Ministry of Agriculture, Forestry and Fisheries (MAFF).



## The Cambodian baseline survey

The baseline survey in Cambodia took place from August to November 2010. The survey's coverage was 15 Community Fisheries (CFis) in 40 villages of Cambodia's coastal provinces, as well as government agencies in Phnom Penh. A total of 778 people from 15 stakeholder groups were interviewed, of which 624 came from CFis at village level and 53 respondents from government agencies at commune and provincial levels.

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

# Socio-economic background

## Kampot and Kep ខេត្តកំពត

Population (2008): 627,884  
(Kep: +40,280)

Density: 130/km<sup>2</sup>

Area: 5,209 km<sup>2</sup>

Districts: 8

Communes: 92 (Villages: 477)

## Preah Sihanouk ក្រុងព្រះសីហនុ

Population (2008): 199,902

Density: 230/km<sup>2</sup>

Area: 868 km<sup>2</sup>

Districts: 3

Communes: 22

## Koh Kong ខេត្តកោះកុង

Population (2008): 139,722

Density: 13/km<sup>2</sup>

Area: 11,160 km<sup>2</sup>

Districts: 8

Communes: 33 (Villages: 133)



Marine fisheries in Cambodia have been slow to develop relative to its rich inland fisheries. In 2009, inland fisheries produced around 390,000 tonnes. By comparison, marine fishery production was 75,000 tonnes.

### Common fishing gears:

- ▶ purse seines nets
- ▶ crab/shrimp gill nets
- ▶ crab traps
- ▶ squid traps
- ▶ hook-and line
- ▶ push nets
- ▶ stow nets
- ▶ beach seine



Of the sampled households the literacy rate is low as most respondents are only educated to a primary school level.



With a 435 km coastline, fisheries in Cambodia play an important role by...

...contributing to

8 - 12% of Cambodia's total economy yearly

...employing an estimated

3 million people

directly and indirectly



...providing

around 75%

of the national animal protein intake

...with an average/capita fish consumption per annum of



52.4 kg



...with fisheries catches still steadily increasing...

> 2006: 60,500 tonnes

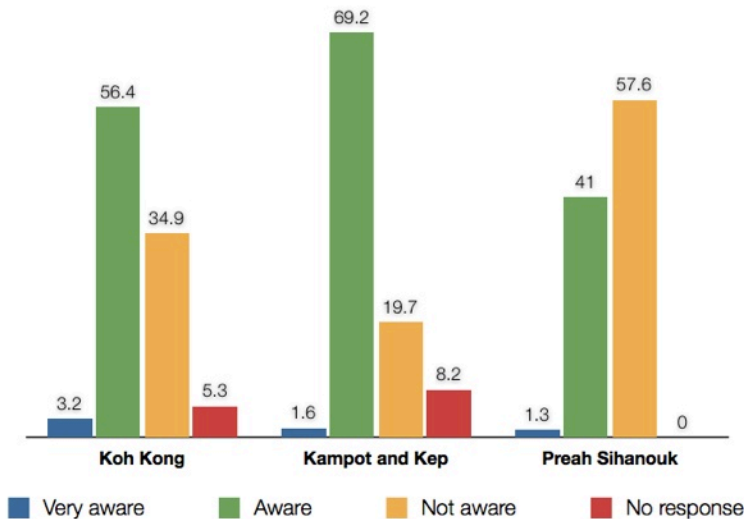
> 2009: 75,000 tonnes

**Fisheries GDP (2008): 720 million USD**

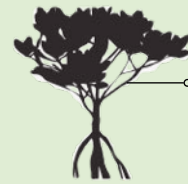
# Co-management

Community Fisheries (CFis) are utilised to manage Cambodia's fisheries and coastal resources and involve both the government and local communities. Generally, fishers are quite aware of CFis and their activities in coastal communities.

Fishers awareness of CFis and their activities (%)



CFis management activities include:



mangrove replantation

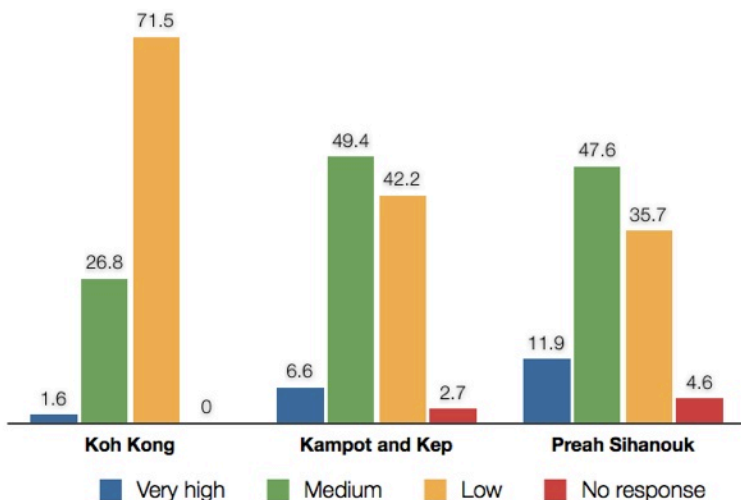


patrolling/combating illegal fishing

► Fishers are informed and are invited to participate in management activities by the local committee and other village members.

Both fishers and fisheries resource managers are generally not satisfied with the status of fisheries resources and catch availability.

Level of fisher household satisfaction with the current resource status (%)



Management groups include:

Fisheries Inspectorates, Fisheries Cantonment, Provincial Department of Environment, Provincial Department of Agriculture, and Provincial Department of Women Affairs.

75.8 %

...of coastal managers are **not satisfied** with the status of fisheries resources.

Coastal management issues:

- Limited policy implementation at the ground level in controlling illegal fishing activities
- Overlapping roles between ministries
- Lack of means and budget for ministries to effectively operate

Successful projects:

- ☑ Crab banks
- ☑ Establishments of conservation areas
- ☑ Fish refugias
- ☑ Patrolling activities

Fisher dissatisfaction stems from:

increasing activity of illegal fishing boats

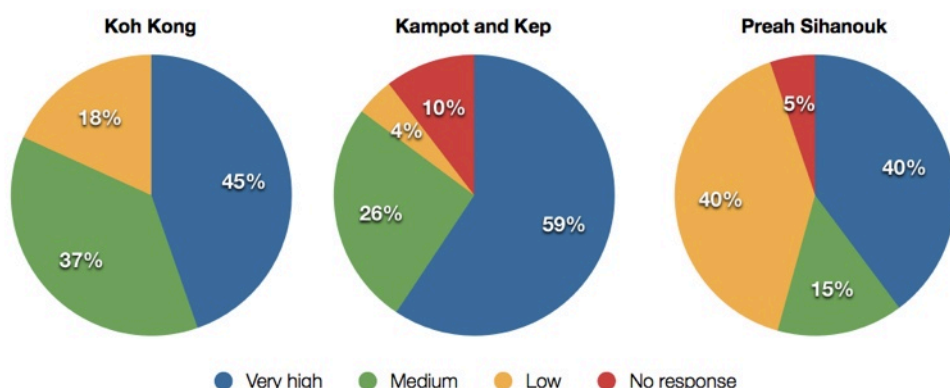
industrialized fishing methods

increasing population growth



Through the Community Fisheries system, fisher households have high expectations that coastal resources and livelihoods will improve.

Level of expectation that Community Fisheries are improving coastal resources



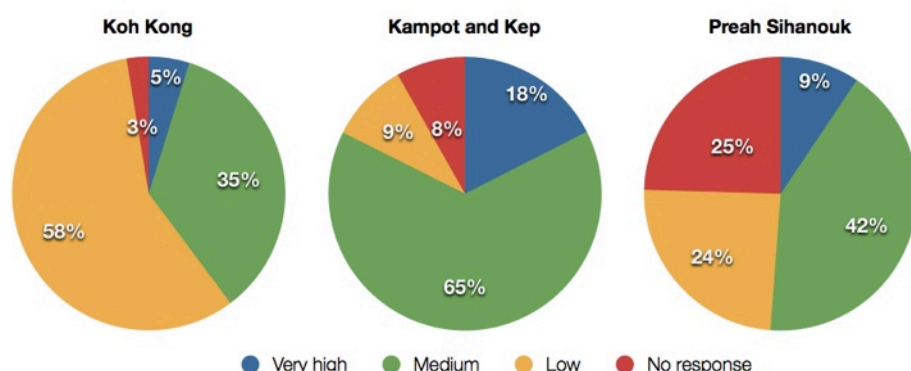
Reasons behind optimistic belief in Community Fisheries

- They empower local fishers to jointly manage resources with the government.
- Enhance community responsibilities in the patrolling and stopping of illegal fishing.
- Joint control over coastal resources through stock enhancement activities (e.g. fish refugia, conservation areas, mangrove restorations, and crab banks etc.)

Many respondent fisher households however indicated that little would change unless transparency issues are addressed in management plans.

Respondents from Koh Kong province express least satisfaction with the Community Fisheries management system.

Level of satisfaction with the community fisheries system



Major reason for lack of belief in current management system:

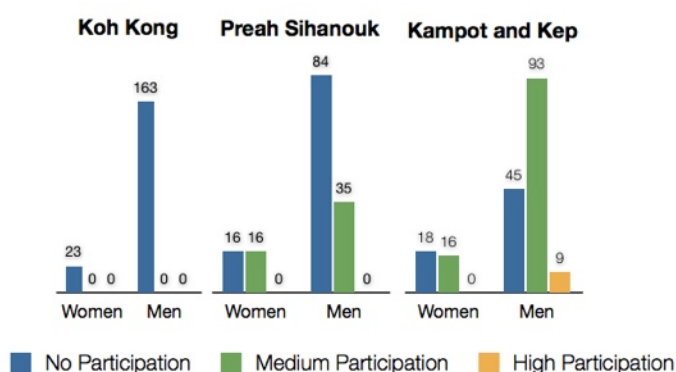
Transparency issues

loss of trust between fishers and authorities

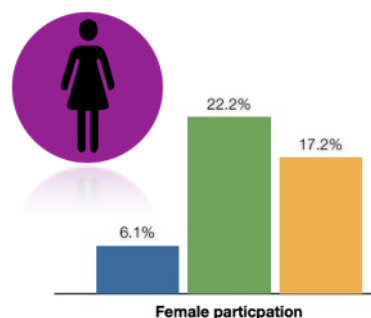
Fishers declare most illegal fishers come from other communities or are fishers from inside the community that fish in the conservation zone.

Fisher engagement in fisheries meetings in Koh Kong and Preah Sihanouk is low. However, in Kampot, fishers and their family members are more involved. Limited time, lack of dissemination, extension and understanding the benefits and importance of participation are issues expressed by fishers.

Participation by fisher households in fisheries meetings (No. of households)



Women's participation in Community Fisheries meetings



Few women take part in meetings because:

- ▶ They lack confidence to hold managerial positions.
- ▶ Commitment to domestic obligations (i.e no time to participate).

# Safety at Sea

Most coastal fishers seldom use the recommended safety at sea items, rather they take items that are affordable, accessible and useable in accordance with their resource capability.

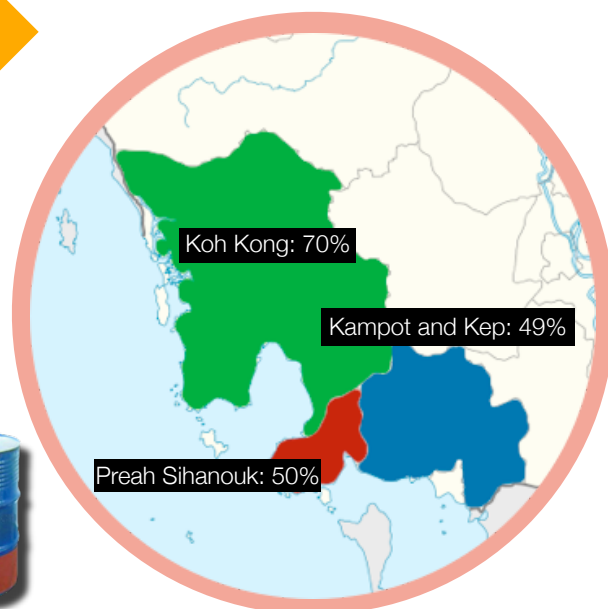
**Recommended safety items include:** Anchors, lights, and basic repair tools. Fishers also stated the importance of personal cell phones.

## Fisher superstition

There is a common superstition that it is bad luck to have a lifejacket on board as it shows 'they wish to sink'. Some fishers opted for alternatives such as empty oil canisters.

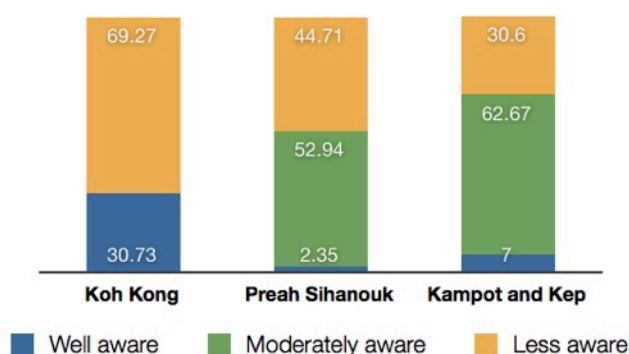


**Percentage of fishers that do not comply with recommended safety items**

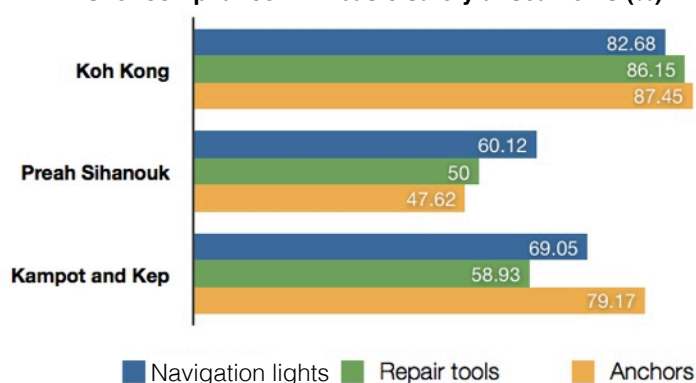


Understanding and frequency of use of safety at sea items (namely navigation lights, tool kit and anchors) varied considerably between provinces. Fishers in Koh Kong appeared most aware of safety issues.

**Fisher awareness of safety at sea items (%)**



**Fisher compliance with basic safety at sea items (%)**



Fishers are generally unaware of the different types of coastal disasters (e.g. tsunamis, earthquakes, storms) and how to react if they are to occur.

## Koh Kong, Kampot and Kep

Apart from storms, 75% of respondents are **unaware** of potential coastal disasters.

## Preah Sihanouk

50% are **aware** of coastal disasters because of TV and radio broadcasts from Viet Nam and Thailand. The other 50% know little about coastal disasters.

Many fishers believe they will not receive any assistance therefore few accidents are officially reported to local authorities, fisheries officers, police or navy. Fishers solve conflicts internally, amongst community members due to weak official reporting systems.

#### Incidents reported by RFLP baseline respondents

- ▶ **Koh Kong** (231 respondents): only one crew member submitted an official report on a collision incident between a trawler and a local crab fisher.
- ▶ **Preah Sihanouk** (170 respondents): only one woman had reported a fishing accident to the official committee.
- ▶ **Kampot and Kep** (225 respondents): no fishers had reported incidents.

#### Total reported coastal incidents between 2008 - 2010

##### Engine failure or breakdown



**Kampot and Kep:** 67

**Koh Kong:** 87

**Preah Sihanouk:** 97

**Total cases:** 251

In cases of engine breakdown, all respondents reported that this was because of the engine age where most fishers cannot afford to buy a new one.

##### Storm damage during the rainy season



**Kampot and Kep:** 74

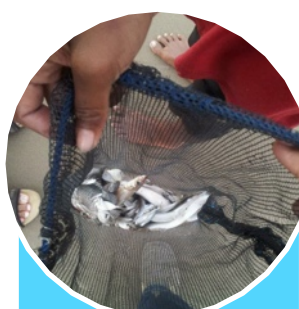
**Koh Kong:** 67

**Preah Sihanouk:** 79

**Total cases:** 220

Fishers viewed storm damage as an inevitable consequence in coastal areas, especially during the rainy season.

##### Fishing gear loss



**Kampot and Kep:** 27

**Koh Kong:** 56

**Preah Sihanouk:** 79

**Total cases:** 162

Fishing gear loss is normally the result of theft or conflicts between engine push net boats/trawlers, and small scale fishers who use crab/shrimp nets and crab traps.

##### Boat collision



**Kampot and Kep:** 14

**Koh Kong:** 28

**Preah Sihanouk:** 29

**Total cases:** 71

Boat collisions occur because of conflicts between small scale and medium scale fishers, but only in respect to more mechanised boats.

Fishers rarely heed weather warnings or engage in disaster preparedness activities. A look at a sky to predict weather and conditions was the most common means to predict weather.

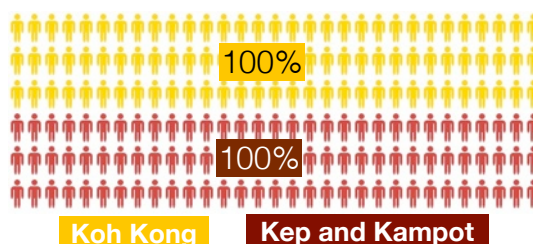
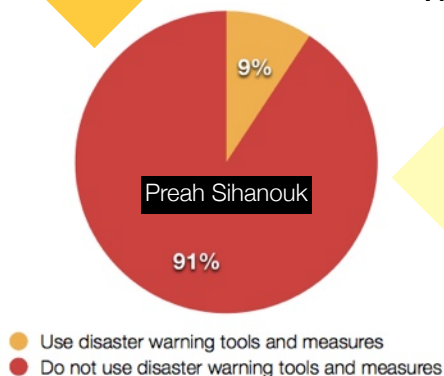
#### Fishers that use disaster warning tools and measures

##### Disaster warning measures include:

- TV
- Radio broadcasting (from Viet Nam)
- Sky observations

As fishing is conducted close to shore many fishers do not listen for warnings as they can quickly return to the shore. Some fishers also simply follow other fishers.

**All respondents in Kep and Kampot and Koh Kong** provinces declared that the only coastal disaster measure (out of eight discussed) followed was to observe the condition of the sky. Fishers deemed this a sufficient means to avoid and prepare for risks.

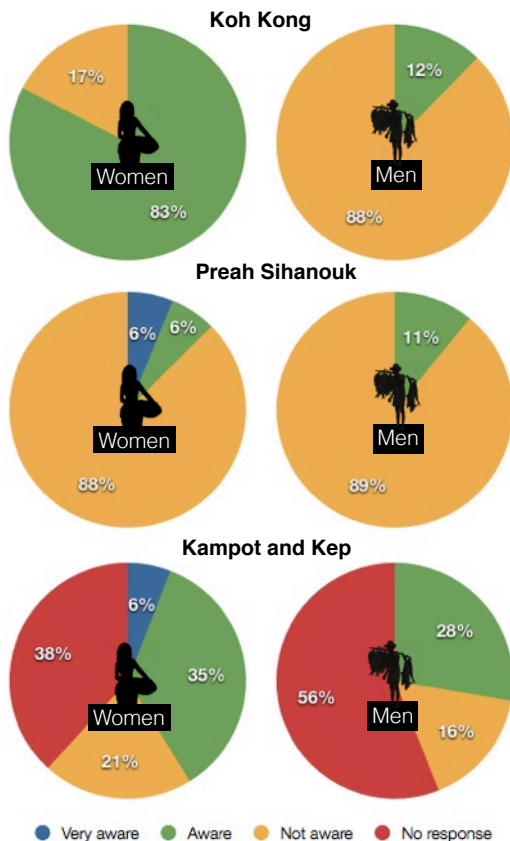




# Post Harvest and Marketing

Fishers do not have a good idea on the importance of post harvest practices on fisheries product quality. Little attention is given to processed products as they are mostly produced for family use.

**Fisher awareness on the importance of post-harvest practice on product quality**



**Popular post harvest products include:**

## Koh Kong

- ▶ dried shrimp
- ▶ swimmer crab
- ▶ shrimp paste (Ky)
- ▶ shrimp jam
- ▶ steamed fish
- ▶ salted crab

Swimmer crabs (*Portunus pelagicus*) are the main product in Kampot and Kep. Large peeling companies operate in the area and therefore the incentive for fishers to process crabs themselves is low.



## Preah Sihanouk

- ▶ dried shrimp
- ▶ swimmer crab
- ▶ salted crab
- ▶ dried squid
- ▶ dried ray



shrimp paste (Ky)



dried shrimp

## Kampot and Kep

- ▶ dried shrimp
- ▶ shrimp paste (Ky)
- ▶ shrimp jam
- ▶ swimmer crab
- ▶ fish jam
- ▶ salted crab
- ▶ steamed fish



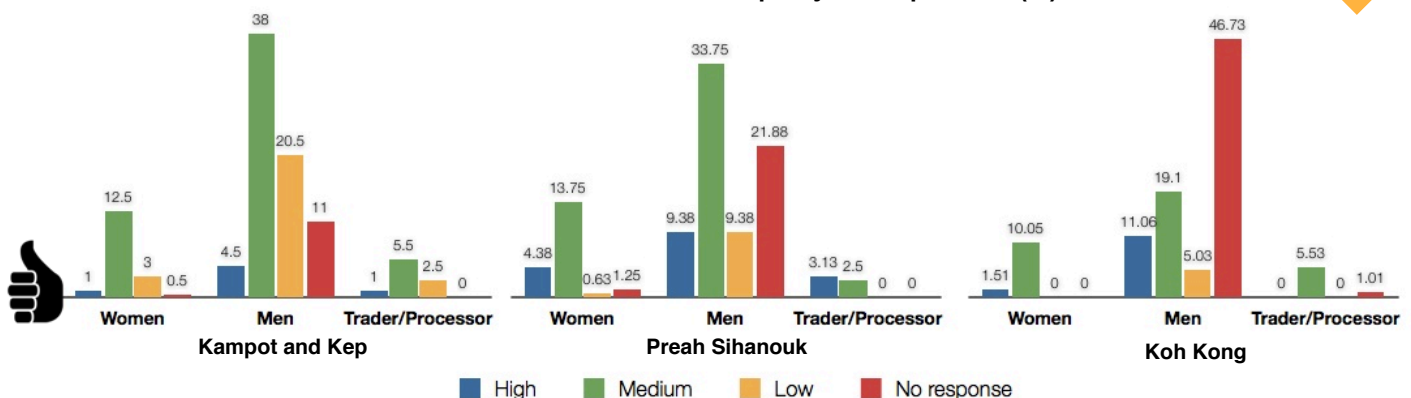
salted crab



dried ray

There is some sense of satisfaction with the quality of post harvest products purchased by consumers. It was revealed that each area had unique ways to produce products that match taste preferences. Product quality became an issue when items are not produced by fishers themselves and are purchased from markets.

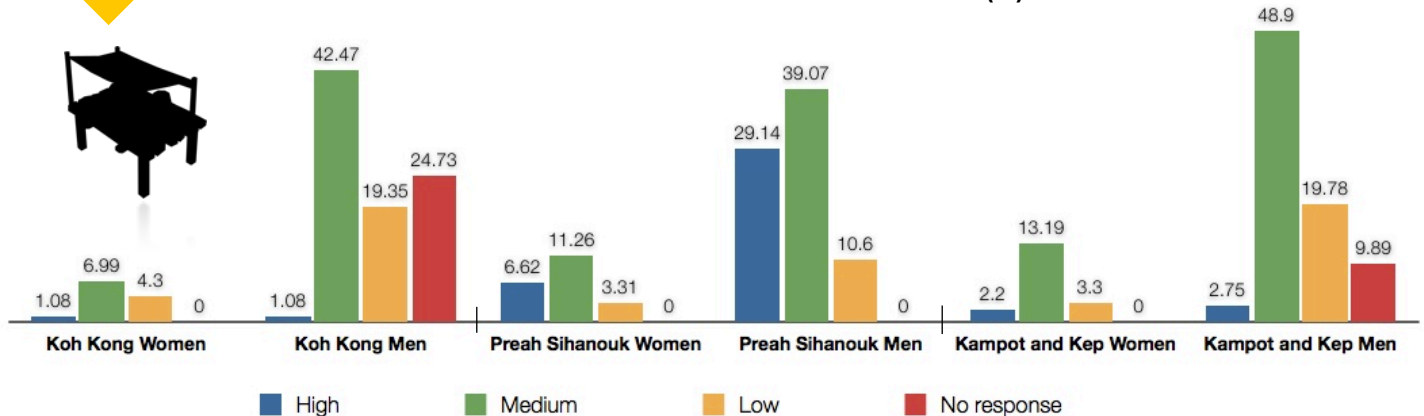
**Consumer's satisfaction with the quality of fish products (%)**





Fishers and families are fairly satisfied with their access to markets for selling catches as most markets are near the village and are not too difficult to access.

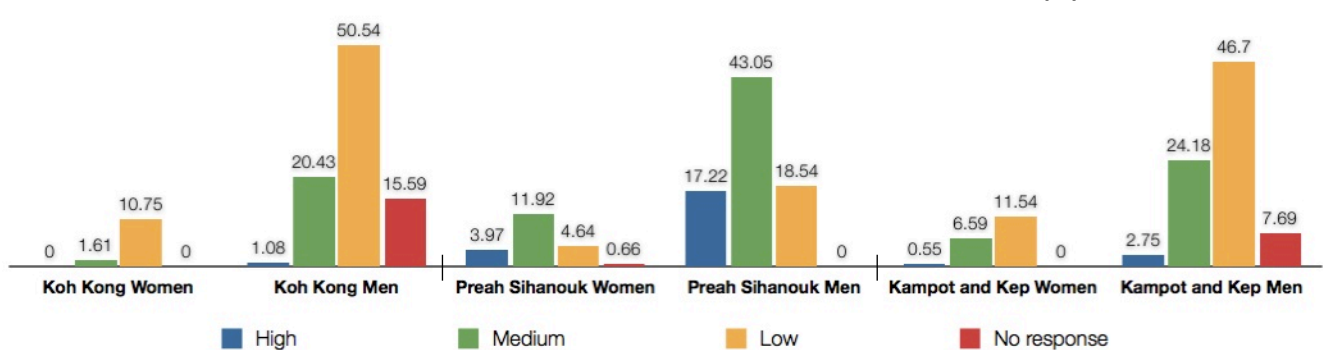
Fishers level of satisfaction with access to markets (%)



Most fishers land **less** than 10 kg/day and often sell to the local middle person. However, fishers that move catches directly to the market must pay for extra gasoline. In *Ou Krosar*, some fishers utilise motorcycle taxis to transport their catches to markets, paying around 2USD to sell their catch, which is usually 3-5 kilograms.

Fishers and families appear to have little influence on the market although in Preah Sihanouk the situation is slightly better. Large wholesale distribution centres and price control by middle persons are seen as major hindrances.

Level of satisfaction with fishers' influence on the markets (%)



There are currently very few government policies that support coastal post-harvest infrastructure due to limited development funds and lack of attention. Inland fisheries are given more attention and coastal post-harvest technology management is almost non-existent.

#### Department of Post-harvest Technology and Quality



**26,000 \$** annual budget

**18** full-time department staff

#### Common post-harvest issues:

- ▶ lack of sanitation
- ▶ spoilage
- ▶ loss of weight after processing
- ▶ use of preservatives

# Livelihoods

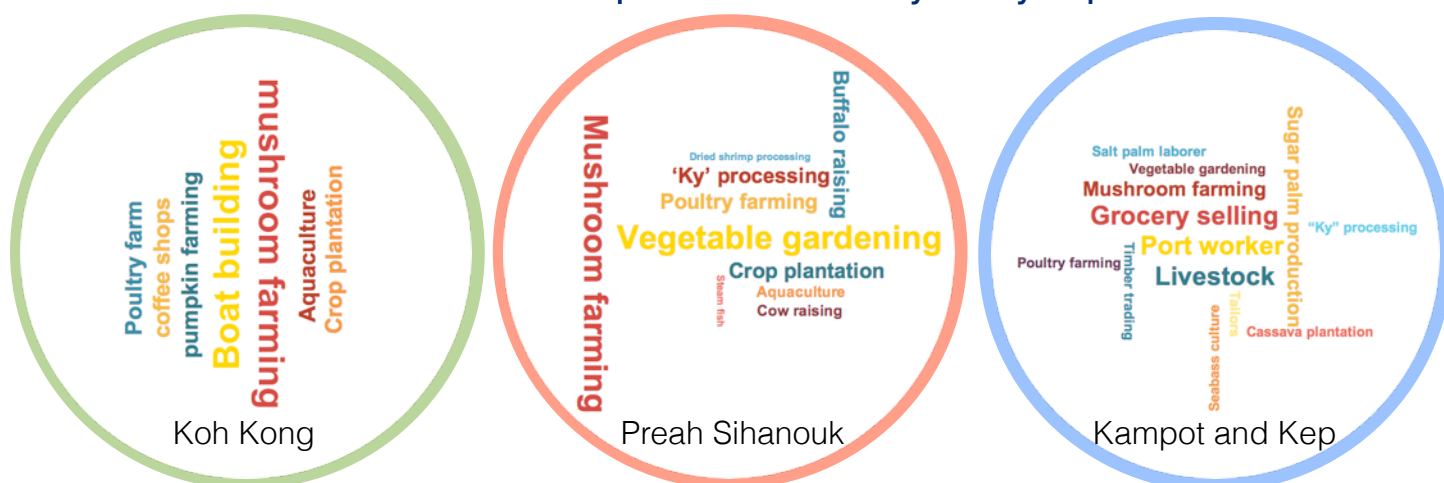


Fishing is the main means of livelihood for Cambodia's coastal communities. However a wide range of alternative livelihood activities had previously been attempted in communities.

Livelihood diversifications previously implemented by NGO's, donors and government groups



Livelihood diversification options considered by survey respondents



Fishers are moderately satisfied with the current livelihood situation but many households are unaware of livelihood options available.

Fisher's satisfaction with their current livelihoods

Kampot and Kep



Preah Sihanouk



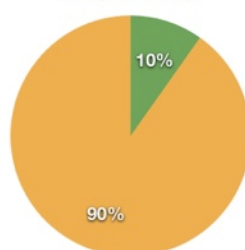
Koh Kong



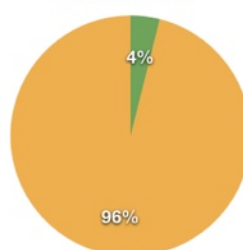
Very satisfied Moderately satisfied Not satisfied No response

Fisher household's awareness on livelihood diversification options

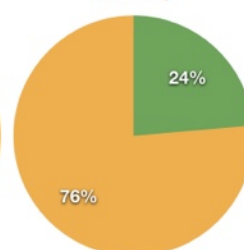
Kampot and Kep



Preah Sihanouk



Koh Kong



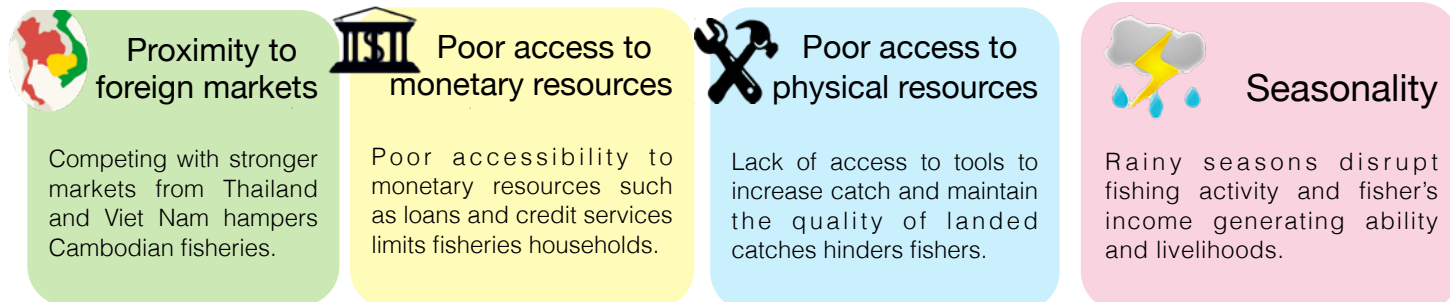
Very aware Aware Not aware

Fishers declare that combining activities such as **rice farming, fishing, raising livestock** and **vegetable gardening** is the most viable method as these livelihoods can complement one another all year round.

Fishers who are **not satisfied** claimed that dependence only on fishing, which results in irregular income would never make their family prosperous, however they did not have many other choices.

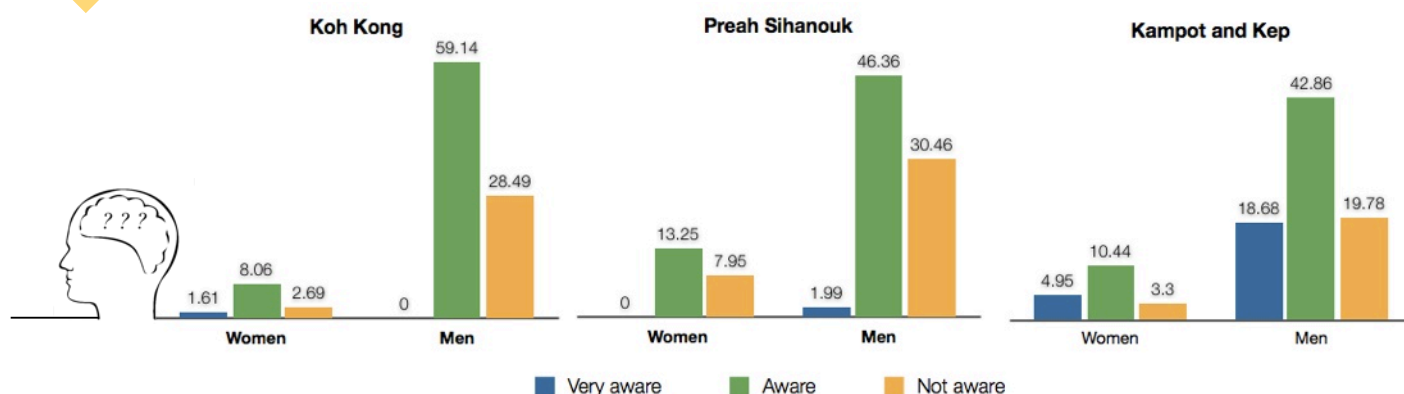
Migration is a significant influencing factor in Cambodian fisheries. Some coastal dwellers (e.g. rice farmers, outside crew members, animal farmers) migrate from other districts and switch to fishing.

### Other factors influencing fisher livelihoods:



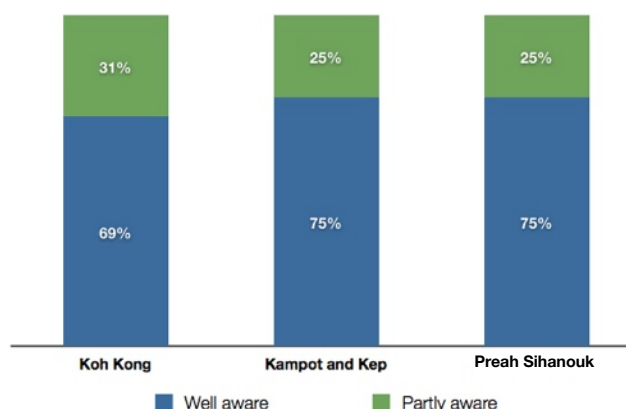
Although many existing livelihoods activities are implemented within coastal communities, some fishers and their household members seem to be unaware of them. Awareness levels amongst respondent men are higher than women.

Awareness of current livelihoods activities within communities (%)

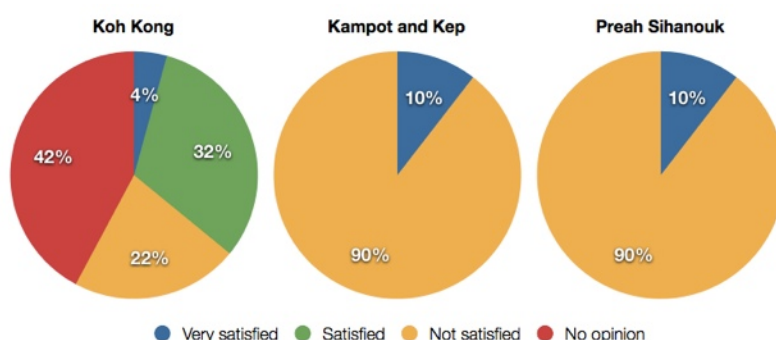


Although generally well aware of available livelihood support services, fishers are mainly not satisfied with them. Fishers who are satisfied tended to be those chosen to take part in pilot activities and projects.

Fisher awareness of livelihood support services



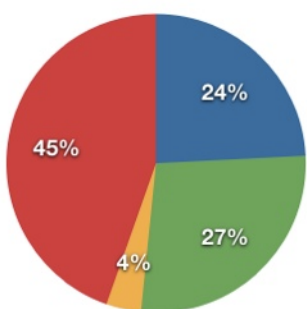
Fishers' satisfaction with livelihoods support services



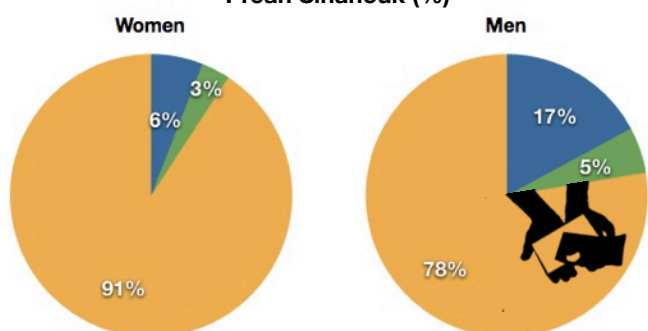
# Micro-finance

Utilisation of micro-finance services is fairly low. Fishers tend to borrow from middle persons or families/friends more than from formal institutions.

Fishers that use micro-finance services in Koh Kong (%)



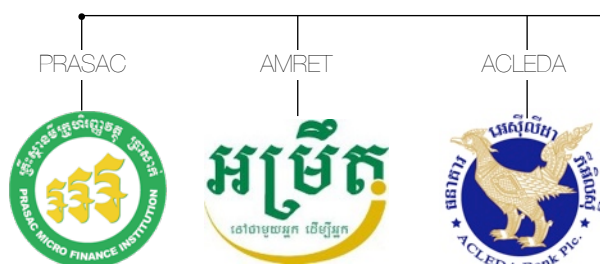
Fishers that use micro-finance services in Preah Sihanouk (%)



**50.5%**

**Kampot and Kep** fishers mostly accessed loans from both middle persons and formal micro-finance service institutions.

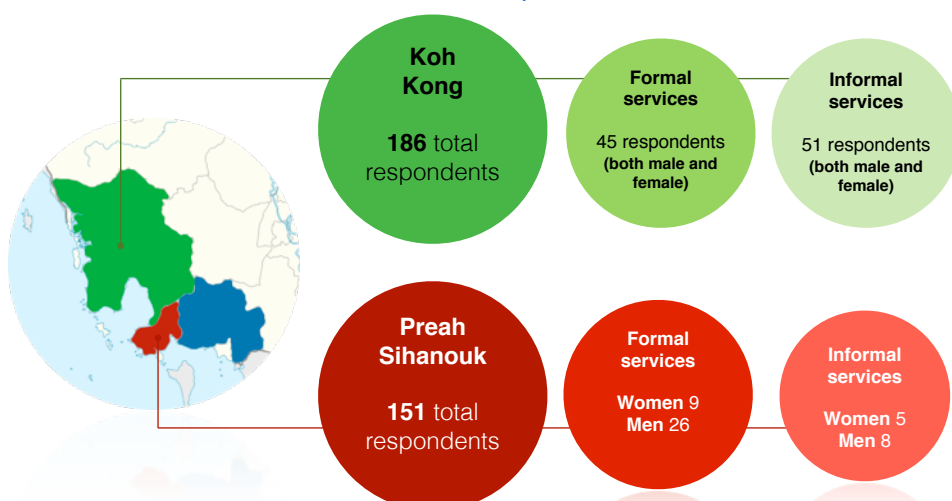
- Formal institutions
- Traders/middlemen/friends and relatives
- Community fishers saving groups
- No response



In **Preah Sihanouk** some fishers borrowed money from middle persons because they have migrated from other communities and do not own property. Unless a property owner, one is unable to officially take loans from formal finance services. However, fishers who owned land and required larger loans could obtain loan services from banks such as ACLEDA, AMRET, and PRASAC.

Access to credit is an issue with few fishers actually using credit services. If taking loans, fishers would often use them to buy boats and fishing gear in order to upgrade their fishing capacity and seasonal catch by switching from nets to traps.

Number of RFLP Baseline respondents that have used micro-finance services



In Cambodia, the level of access to loans from banks is low regionally. In the fisheries and agricultural sectors most people get loans from their families, friends and relatives. **40%** have access to informal loan systems. **5%** have access to formal banks with formal procedures.



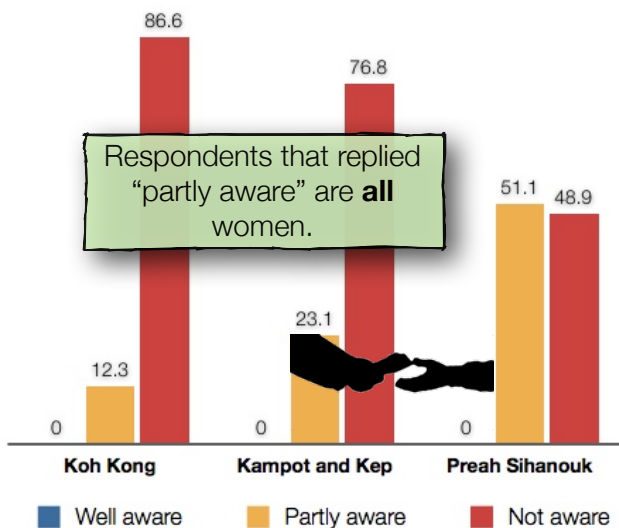
Fishers are generally unaware of the existence of credit and loan facilities. Loans and micro-finance credit are not widely available to the poor because of land title issues.

## Money matters

Generally, most small-scale fishers do not understand the obligations between lenders and borrowers. Women knew more about the processes and basic requirements to get money from formal banking services as they directly communicate with credit officers and bankers. Male fishers meanwhile are regularly out fishing, working or away from home.

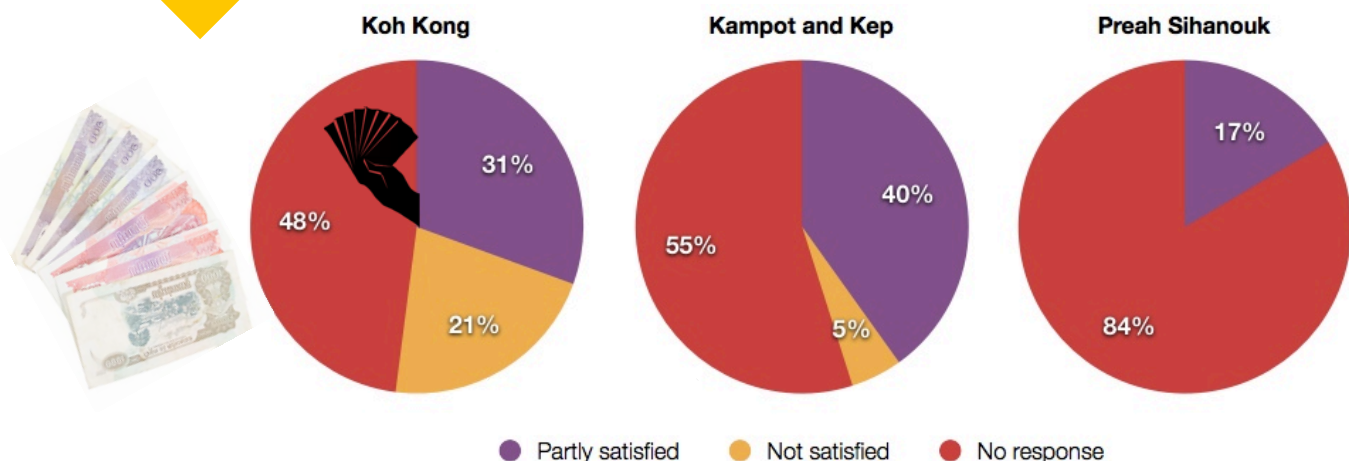


Fishers' awareness of credit and loan services by private banks and informal groups (%)



Most fishers are not satisfied with the current loan systems, claiming that a lack of alternatives and high interest rates are major constraints. As a result many fishers take loans from a middle person at higher interest rates or transaction costs.

Fishers satisfaction with private and informal credit services



10 to 30

...the number of fishers that, on average, acquire loans (no interest) from a **single** middle person to purchase fishing gear.



## Middle persons controlling loan rates

By accepting no-interest loans fishers are forced to sell their catch to the middle person at a below market rate. If the middle persons did not agree with the prices declared by the fishers, the middle person would not buy their catch and fishers would have no income.

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