

**Assessment of outputs, activities, indicators and implementing partners of the
Regional Fisheries Livelihoods Programme (RFLP) in Vietnam, Sri Lanka
and Cambodia**

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BACKGROUND AND INTRODUCTION

The consultancy was undertaken as a preparatory input for the FAO Regional Fisheries Livelihoods Programme (RFLP), which is funded by Spain and which is operational since September 2009. The Programme will contribute to an overall objective formulated as: “Improved livelihoods and reduced vulnerability of small-scale fishing communities in the participating countries and in the South and Southeast Asian region”. Its immediate objective is: “Strengthened capacity among participating small-scale fishing communities and their supporting institutions towards improved livelihoods and sustainable fisheries resources management”. Problems and issues identified as common to coastal marine fisheries in the region and in the participating countries¹, during formulation, are:

- “the lack of mechanisms and capacity for joint management of the fisheries between the fishers and government authorities;
- the great vulnerability of small-scale fishers and their families in view of the risky occupation and exposed habitation;
- the loss of income from fish and fishery products due to poor handling, preservation and processing practices and inequitable returns from marketing systems;
- the need for alternative incomes to supplement the livelihood when fishing activities have to be reduced for sustainable resource management and;
- the (limited) access to microfinance to diversify income, adapt fishing equipment to new management regulations and to reduce vulnerability”.²

To achieve the objective, outputs and activities were formulated and stakeholders were identified. Primary stakeholders include:

- “Coastal fishers, processors, traders and their families, their organizations and their communities, including the local authorities and;
- Government organizations and institutions responsible for the administration, management and development of the coastal fisheries at local, district/province and national levels”.³

The Project Document (ProDoc) identified other potential stakeholders and indirect beneficiaries, i.e.:

- “Specialized fisheries institutions for research and development at different levels and locations in the respective countries some of which will be engaged by the project as partner organisations to undertake specific studies, analyzes or to conduct training;
- Local and national non-fisheries organizations and institutions, including NGOs with interests in the welfare of fisher communities and sustainable development, needed as

¹ Cambodia, Indonesia, Philippines, Sri Lanka, Timor-Leste and Viet Nam

² Project Document GCP/RAS/237/SPA

³ idem

development partners for the necessary cross-sector interventions to achieve the intended improvements in livelihoods and reduced vulnerability in the communities;

- Consumers of fish in the areas of project intervention and beyond who will benefit from higher quality products and food safety;
- The donor community of several bilateral and international donors active at the national and regional levels to support the coastal communities; there is a need to coordinate the activities of this project with ongoing and planned activities of others and to exchange information and learn from each other;
- Regional organizations form an important stakeholder group. Organizations that may play an active role in the implementation and follow-up of the programme are APFIC, Asia Pacific Rural and Agricultural Credit Association (APRACA), Bay of Bengal Programme (BOBP), INFOFISH, Network of Aquaculture Centres in Asia-Pacific (NACA) and SEAFDEC⁴.

The Programme intends to achieve the following outputs:

- Co-management mechanisms for sustainable utilization of fishery resources;
- Measures to improve safety and reduce vulnerability for fisher communities;
- Measures for improved quality of fishery products and market chains;
- Diversified income opportunities for fisher families;
- Facilitated access to microfinance services for fishers, processors and vendors;
- Regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management.⁵

For each country work plans following this matrix were formulated. Outputs were operationalized in activities and objectively verifiable indicators and assumptions were identified.

However, programme management recognized that the generic identification of stakeholders, formulation of outputs and activities and identification of indicators needed adjustment according to the specific situations in the different countries and target areas. Accordingly, it was decided to employ consultants to carry out assessments in all participating countries, as a preparatory input to the national inception workshops, which are scheduled during December 2009 and January/February 2010.

The following general objective for the assignments were provided by Programme management: “The consultancy is to identify if any stakeholder groups and support institutions were missed during the national RFLP identification missions, and to identify any developments since that will impact on RFLP outcome and outputs in the 3 RFLP countries. Thereafter the consultant will provide recommendations for activity revision and recommendations for people and institutions to conduct activities, and recommendations for output indicators and data collection methods. This consultancy will facilitate RFLP achieving its outcome and outputs, and allow RFLP to show impact.”⁶

⁴ idem

⁵ idem

⁶ The full ToR are attached as an Annex

The following report shows the results of the assessment of stakeholders, work plans, outputs and activities, and indicators carried out by the author from December 1st to 8th (Vietnam), December 13th to 19th (Sri Lanka) and January 3rd to 10th (Cambodia).⁷

The author expresses his gratitude to all respondents, resource persons and officials who provided information and shared their knowledge and insight of coastal fisheries in the countries visited. The findings, conclusions and recommendations presented below are entirely his, however, and do not imply any commitment of the Programme and its partner organizations.

⁷ A time sheet giving the detailed itinerary is attached as an Annex

PART 1: VIETNAM

1.1 PROVISIONS OF THE PRODOC

According to respective Annex of the ProDoc, in Viet Nam the Programme will work in three provinces of the central region, i.e. Quang Tri, Quang Nam and Thua Thien Hué. The identification mission provided the following features of the marine fishing sectors of these provinces as:

- “Increasing fishing effort but stagnant, and in some cases reduced, fish production in the coastal areas.
- Several fishing regulations have been decreed but there is no effective enforcement of them. Illegal fishing is not rare, using explosives, electricity, etc.
- The fishing communities are not strongly organized and compete in the exploitation of the resources.
- Small boats are built of bamboo and wood, most of them poorly equipped and using simple technology.
- There is an alert system for disasters but the fishers are not sufficiently involved and the communication of information is not working properly.
- The market system is over-controlled by the middleman and access to information is very difficult.
- The facilities and procedures for handling and preservation of fishery products don't reach minimum standards of healthy and quality.
- Banks are reluctant to provide credits to fishers due to the high risk of the sector and bad repayments. Banks require business plans before granting, loans but fishers and women vendors don't have capacity and knowledge to prepare them.
- There are few alternative income opportunities for the fishers”.

Based on these findings, the mission developed work plans for the five outputs pre-identified for all participating countries. The work plan for the first output, co-management is shown in the following table.

1. Fisheries Co-Management mechanisms

Outputs	Activities	Year 1	Year 2	Year 3	Year 4
1.1 Fisheries regulations reviewed and amendments drafted	Identify weaknesses in existing regulations				
	Drafting of modified regulations				
1.2 Fishing boat registration	Review of system to identify shortcomings				
	Elaborate suitable improvements to system				
	Implement the small boats registration				
1.3 Community organizations formed/strengthened	Identify existing organizations				
	Form new or formalize existing organizations				
	Identify training needs				
	Prepare training material				
1.4 Officials trained in fisheries co-management	Conduct training				
	Identify training needs				
1.5 Fisheries management plans	Prepare materials and conduct training				
	Communities identify suitable management measures				
1.6 Improved habitat management practices	Communities Prepare management plans				
	Communities Identification of areas to be protected				
	Consultations with stakeholders				
1.7 Participatory enforcement mechanisms	Communities prepare protection mechanism				
	Consultations with stakeholders				
	Design of surveillance system				
	Training of community members and officials				
	Provide facilities and means for surveillance				
1.8 Systems/ procedures for monitoring of management measures	Surveillance activities and reporting				
	Identify variables and design monitoring system				
	Train officials and fishers in data collection				
	Provide materials and equipment				
	Collect data and prepare reports				

The second output is improved safety at sea and reduced vulnerability. The work plan developed is shown below.

2) Measures to improve safety at sea and reduce vulnerability

Outputs	Activities	Year 1	Year 2	Year 3	Year 4
2.1 Accidents and their causes assessed	Collect information on accidents and causes				
	Analysis of collected information				
	Design of register for recording accidents and causes				
2.2 Enhanced disaster preparedness in coastal communities	Analysis of disaster occurrences and consequences				
	Awareness building on disasters and preparedness				
	Training of fishers and inspectors in fishing boat safety				
	Provide basic safety materials and equipment				
	Establish community disaster recovery funds				
2.3 Communications systems	Review the existing disaster alert system				
	Strengthening the capacity of Provincial authorities				
	Facilitate improved boat to boat/shore communication				

The work plan for the third output, improved quality of fishery products and market chains, is shown below.

3) Measures for improved quality of fishery products and market chains

Outputs	Activities	Year 1	Year 2	Year 3	Year 4
3.1 Public awareness of food safety issues	Review and assessment of the food safety hazards				
	Design of awareness campaign strategy				
	Implementation of awareness campaign				
3.2 Improved management of fish landing centres	Identification and feasibility assessment of improvements				
	Re-arranging physical facilities at the centres				
	Encourage the establishment of fish auctions systems				
	Facilitate the establishment of cold storage facilities				
	Facilitate the installation of ice-making machines				
	Training of managers and staff of the landing centres				
3.3 Extended fish processing and marketing operations	Undertake feasibility studies for selected products				
	Train fish processors/traders in business management				
	Train fish processors to improve quality of dried fish and fish sauce				
	Support the establishment of micro-enterprises for fish processing and trading				
	Promote the establishment of integrated processing and marketing by pilot operations				
3.4 Improved market information	Review of selected marketing chains and arrangements				
	Support improved communication with mobile phones				

Diversified income opportunities for fisher families, the fourth output, was operationalized in the work plan below.

4) Diversified income opportunities for fisher families

Outputs	Activities	Year	Year	Year	Year
		1	2	3	4
4.1 Livelihood and gender needs and priority analyses	Survey of income and gender situation in selected target communities				
	Identification of needs and priorities				
4.2 Feasibility analyses of income options	Study of technical feasibility				
	Study of financial feasibility				
4.3 Marketing strategies for products and services	Survey of markets for intended products and services				
	Development of marketing strategy				
	Promotion of products and services				
4.4 Associations formed/strengthened for producers and service providers	Identify opportunities for group business				
	Assist groups in formulating cooperation agreements				
	Train members of the groups in marketing of products and services and business management				
4.5 Trained exponents of diversified incomes	Design training inputs				
	Conduct vocational training for production and delivery of services				
4.6 Pilot operations for products and services	Provide equipment and materials for pilot operations				
	Support and guidance of pilot operations				
	Assess impact of pilot operations to identify follow-up				

The last output identified was facilitated access to microfinance services for fishers, processors and vendors. The work plan for this output is shown in the following table.

5) Facilitated access to microfinance services for fishers, processors and vendors

Outputs	Activities	Year	Year	Year	Year
		1	2	3	4
5.1 Simplified savings and lending systems	Review and analysis of existing savings and lending systems and identification of improvements				
	Discussions with MFIs on simplifications of systems				
5.2 Community members trained in financial planning and management	Identify suitable target groups				
	Design of training programme				
	Conduct of training				
	Monitor training impact				
5.3 Microfinance briefing materials	Determine contents of briefing materials				
	Design and produce briefing material				
	Dissemination of briefing material				
	Monitor feed-back from users of material				
5.4 Insurance schemes	Review and analysis of existing compensation schemes				
	Preparation of alternative compensation schemes				
	Discuss proposed schemes with authorities concerned				

The Annex did not identify stakeholders but specified implementation arrangements. According to the Annex, the Programme will be operating under the authority of the International Cooperation Department (ICD) of the Ministry of Agriculture and Rural Development (MARD), with involvement, under partnership agreements with MARD departments and directorates responsible for sector management. As implementing agency, the Research Institute for Aquaculture 1 (RIA 1) was mandated.

On province level, the Extension Units of the Departments of Agriculture and Rural Development (DARD) in the three provinces and DARD specialized agencies will be responsible for implementation. The Extension Unit of TT Hue province will accommodate Programme staff. Activities at the community level are envisaged to be implemented with involvement of the District People's Committees.

5.1 EX ANTE EVALUATION OF OUTPUTS

The assessment of the proposed outputs in the general context and present situation of the marine fisheries of the three target province resulted in the following findings and conclusions.

5.1.1 FISHERIES CO-MANAGEMENT

The recent analysis of official data on fishing capacity found a latent need for management of marine fisheries in the three provinces⁸. According to these data, there is no decrease and even a slight increase of CPUE for offshore vessels. However, data are not comprehensive and subject to bias, e.g. a tendency, by provincial authorities, to under report effort and to over report catches. There are reasons to believe that there is, or will be, excess or overcapacity, at least in some fleet segments, e.g. the following:

- The present lack of management, in particular lack of management of fishing capacity and lack of combating IUU fishing, which results in *de facto* free and open access condition for all fleet segments.
- The practice of granting licenses without considerations of resource availability and sustainability.
- The lack of enforcement of existing zoning regulations which allows offshore vessels, mainly from other provinces, to fish in inshore waters.
- The absence of transparent and credible reference points which will constrain legitimacy and acceptability, by the industry, of future efforts to limit access, even assuming political will of provincial authorities to do so.

An assessment of local knowledge carried out in TT Hué province in 2009⁹ provided information which indicates an immediate need for management, however, at least for the inshore fishing grounds of the province. Respondents overwhelmingly agreed on the following indicators:

- Loss in diversity and change of catch composition: Some species have disappeared entirely, others, before caught inshore, are now found only offshore. Overall, diversity inshore has declined sharply, with few finfish species and squid dominating catches.
- Loss of abundance: Estimates are that overall abundance declined by 70 to 90% inshore, which has led fishers to multiply fishing intensity, e.g. number of gear. Overall CPUE was reported to have declined by about 50% on average, which contradicts estimates based on official data (see above).
- Increase of competition and conflicts: There are frequent conflicts between inshore fishers and larger vessels which come mostly from other provinces and from China. Loss and destruction of gear employed by inshore vessels caused by larger vessels using active gear is equally frequent. Many smaller vessels now need to travel offshore, often long distances, to find fish.

⁸ An assessment of fishing capacity in Central Vietnam is presently ongoing. The assessment is carried out with FAO funding (FAO HQs, FIEP, and FAO IMOLA Project). The data and information on marine capture fisheries discussed below are based on the results of this assessment.

⁹ U. W. Schmidt, M. Marconi, Assessment of fishing capacity in Thua Thien Hué Province, Annex 3, 2009 (draft)

Co-management is considered, by most resource persons consulted, the best option for the management of small scale fisheries and for implementing existing legal and regulatory frameworks, and co-management can provide for adjustment of fishing capacity and for limiting access. This option is also the chosen policy approach on national level: the Fisheries Law of 2004 postulates devolvement of management functions from province to commune levels. In TT Huế, most regulatory provisions are in place, although there are still inconsistencies. In the other two provinces, co-management is still embryonic.

Conditions for co-management are effective enforcement by state and provincial authorities, which is presently not in place, and functioning community level management institutions, i.e. in the Vietnamese context, Fisheries Associations (FAs). At present, there are six FAs in TT Huế¹⁰ and some informal groups in Quang Nam. In Quang Tri, some groups of small scale fishers are organized in Farmers Associations. Provincial Fisheries Associations (PFAs) exist in Quang Nam and TT Huế, but not in Quang Tri.

5.1.2 SAFETY AT SEA AND REDUCED VULNERABILITY

Information available on province and local levels confirm the need for improved safety at sea and reduced vulnerability for all three target provinces. An *ad hoc* needs analysis identified improved safety at sea as the clear priority. As shown in the aftermath of the last typhoon which struck TT Huế, Da Nang and Quang Nam in September 2009, alarm systems and evacuation mechanisms worked well and helped to limit negative impacts in coastal areas. Vulnerability to natural disasters in these areas hinged on houses, especially of the poorer families, being constructed with flimsy materials and at exposed locations.

Safety at sea is still a very critical issue, especially for the smaller vessels. Vessels having below 20 HP propulsion usually have neither life vests nor communication on board, although life vest are obligatory according to regulations. For bigger vessel with up to 90 HP propulsion, life vests and radios/GPs are obligatory but the degree of compliance is differing according to enforcement capacities. These vessels often travel considerable distances to reach productive fishing grounds, which exposes them to increased risks.

Vulnerability was highlighted, by the provincial authorities consulted, also for the offshore fleet, in spite of the fact that offshore vessels usually have communication and live buoys on board. Two factors appear to contribute significantly to losses of human life and vessels here: Forecasts are frequently incorrect or not precise regarding to which offshore fishing area will be hit by storms, and crews often don't turn on their radios. In 2006, when hundreds of offshore vessels

¹⁰ In Phong Hải, Phú Thuận, Phú Thuận (2), Phu Loc Town, Loc Tri and in Vinh Thanh.

sank during a storm, in Quang Nam, for example, some coastal villages lost up to 60% of their male populations, mainly fishers working on offshore boats.

5.1.3 IMPROVED QUALITY OF FISHERY PRODUCTS AND MARKET CHAINS

There is certainly a need to improve the post harvest sector of marine fisheries of the three target provinces: The value chains are dominated by middlemen, fishers have little bargaining power, and handling and storage of catches is highly inadequate. However, the scope of the Programme to significantly improve this situation is limited, for the following reasons:

- Middlemen are socio-politically well entrenched; many fishers depend on them for input supply and credit;
- Local demand is limited because of the low purchasing power of local consumers. The better off tend to resort to aquaculture products, which are sold in much better sanitary conditions;
- A considerable part of the catch is landed outside the provinces. In TT Hué, for example, only some 30% of the catches are landed, the rest is sold at sea, to be transported to more affluent markets;
- The part of the catches landed in the provinces are scattered over many landing points; there are only a few fishing ports in Quang Tri and TT Hué, which makes outreach to improve and control of products difficult;
- Consumers are not willing to pay more for better quality;
- Except for fish sauce, which is produced locally on artisanal scale, consumers prefer to consume non processed fish.

An area where Programme interventions could yield measurable and sustainable results is the improvement of handling of catches on board, by better treatment and storage of catches and improved use of ice.

5.1.4 DIVERSIFIED INCOME OPPORTUNITIES FOR FISHER FAMILIES

In the situation of over fishing or excess fishing capacity that is most likely the case in the target provinces, to diversify income and employment opportunities for fisher families could be an option only if it leads to reduced resource pressure, i.e. induces fishers to exit marine fishing. If diversified income opportunities supplement marginal incomes from fishing, the option is likely to maintain fishing operations which would be not economically viable otherwise. Therefore, income opportunities need to be found outside the sector, subtracting fishing effort and allow for stock recovery and better incomes for the remaining fishers.

However, the IMOLA project in TT Hué, which engaged in activities stipulated in this output, found that there is little scope in diversifying/creating alternative incomes. Main reasons were:

- Small scale marine fishing is already a last resort livelihood option for most fishers; families with marginal incomes would have left the sector already if alternative livelihoods were available;
- Possible niches in other primary production sectors are fully utilized; the same is valid for most value-added activities, the range of which are limited anyways for fishery products, as remarked above;
- To transform fishers in aquaculture, a way out of overcrowded fisheries very popular with policy and decision makers, is not feasible because aquaculture, at least in TT Hué, is equally overcrowded, with many operations surviving only with subsidies. Also, aquaculture requires technical and business skills most small scale fishers don't have;
- Being deeply rooted in their rural traditions, most people in the provinces, in particular the poorer sections of the population have limited innovation capacity and more often than not lack entrepreneurship.

In Quang Nam, there may be an opportunity for fishers to find alternative employment in eco-tourism operations associated with coral reefs and sport fishing. This possibility is presently being explored by a Vietnamese NGO, Marine Life Conservation and Community Development (MCD). In Quang Tri and TT Hué, this option is limited because tourists stay mostly only a few days in these provinces.

5.1.5 ACCESS TO MICROFINANCE SERVICES FOR FISHERS, PROCESSORS AND VENDORS

For fishing households, the scope of this output is limited for reasons similar to the above; for processors and vendors constraints to improved post harvest practices discussed before apply. Also, credit is available, e.g. through the Agriculture and Rural Development Bank of Vietnam (AGRIBANK), which caters specifically for poorer rural producers. For marine fisheries, subsidized credit schemes were implemented, in the past, to encourage growth of the offshore fleet (resulting in overcapacity in most of Vietnam's 28 coastal provinces). For fishing vessels with propulsion of less than 30 HP, credit is not available following a 2006 decision to freeze effort of this fleet section (decision 02/2006/TT-BTS), which is being enforced since 2009 by the provincial fisheries authorities. Credit for aquaculture has been severely restricted due to the increasing risks of many operations which became evident over the last years.

To facilitate microcredit by changing lending conditions will probably not be acceptable by established lenders like AGRIBANK, and creating microcredit facilities which circumvent established lending policies may be equally unacceptable. Furthermore, it would possibly lead to borrowing for consumptive purposes, which has created "poverty traps" in other countries.

On the base of these findings, the following table assesses the proposed outputs following different criteria:

	scope	significance¹¹	costs	feasibility	sustainability	acceptance
Output 1	high	high	low for FAs, medium for GoV	high for FAs, medium for GoV	depends on political will, financial capacity	high for FAs, not known for GoV
Output 2	high for safety at sea	high for safety at sea	high	High if finance is available	Not known	not known
Output 3	medium	medium	medium	high	medium	not known
Output 4	low	high	high	low	low	not known
Output 5	low	low	high	low	low	Not known

Accordingly, it is proposed to concentrate RFLP interventions and efforts on output 1, i.e. management/co-management as the best option in terms of scope, significance for RFLP objectives, cost efficiency, technical feasibility, sustainability and acceptance, and to focus for output 2 on improved safety at sea and on improved handling and storage of catches on board for output 3.

These recommendations should be discussed, revalidated or readjusted during the national inception workshop and during implementation. According to the final program log frame, the budget should be revised, in particular regarding international and national consultancy inputs and contracts.

¹¹ For RFLP objectives

5.2 ASSESSMENT OF OUTPUTS, RESULTS, ACTIVITIES AND IMPLEMENTING PARTNERS

According to the findings and evaluation above, it is proposed to restructure the generic Programme Matrix provided in the ProDoc to correspond to sector needs in the three target provinces, including a review of potential implementing partners and coordination mechanisms.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level

Results	Activities	Comments
1. Provincial authorities assisted in drafting of regulations and master plans for the management of inshore fisheries	1.1 assist in the formulation of provincial master plans	Provincial authorities (DARD/Sub DECAFIREPs have been mandated, by central government, to develop management plans including plans to manage fishing capacity and combating IUU fishing. On central level, DECAFIREP staff has been trained to assist provincial authorities in the task but their capacities and outreach is limited. RFLP could play a pivotal role in supporting these efforts; for small scale fishers efficient resource management is the best option to sustain and improve livelihoods. For 1.1 Activities have to be coordinated with similar efforts on province (FSSP II in Hué) and national level (Norway, University of Nha Trang).
	1.2 assist in the delimitation of provincial inshore fishing grounds	For 1.2/1.3 Activities should be done by DONRE.
	1.3 assist in zoning of inshore waters by district	
2. Provincial authorities assisted in improved registration of vessels < 20 HP	2.1 update district registers	Vessel registration is in place on province level for vessels 20 HP <. Vessels < 20 HP are kept at district level but updates are not comprehensive, depending on M&E capacities. Activities have to be coordinated with FSSP II in Hué.
	2.2 improve data transfer to province registers	
3. M&E capacities on district and commune level improved	3.1 Facilitate training of district officials in M%E methodologies and data management	Training would include catch and effort monitoring, monitoring of conflicts and infringements and monitoring of socio-economic indicators. Training would be done by Sub DECAFIREP staff previously trained by DECAFIREP Hanoi.
	3.2 Facilitate training of commune and FA members in M%E methodologies	
	3.3 Design incentive scheme	
	3.4 Provide hard and soft ware	

Results	Activities	Comments
4. Monitoring, control and surveillance (MCS) capacities of provincial authorities to manage coastal fisheries improved	4.1 Review and improve vessel licensing system	Activities should be streamlined with existing efforts (guidelines) by DECAFIREP Hanoi and FSPS II. Sub DECAFIREP staff have received training on activities 4.1 to 4.4 from DECAFIREP Hanoi but have limited logistic and HR capacity
	4.2 Train inspectors in port and at sea inspections (including safety at sea and quality control)	. RFLP needs to validate, consolidate and upgrade training. Trainers should be identified by DECAFIREP Hanoi with the assistance of RSPS II.
	4.3 Facilitate transparent and accountable port and vessel inspections	Additional assistance should be provided on MCS concepts, experiences and lessons learned observer programs and MCS data management (international consultancies). Consultant inputs should include on the job training of Sub DECAFIREP staff. Since MCS is a relatively new concept in Vietnam, value would be added to the international input if other future fisheries managers, e.g. DECAFIREP Hanoi staff and graduates from Nha Trang University can participate.
	4.4 Facilitate (scientific) observer programs on pilot scale	Where they are compiled, MCS data are recorded in different data banks and cross referencing is not done. License data are kept at DARD while data on entry and exit of vessels are kept by the Coast Guard.
	4.5 Facilitate data exchange through a surveillance and control protocol between Sub DECAFIREPs and the provincial Boarder Coast Guards	Sub DECAFIREPs and the provincial Boarder Coast Guards should be facilitated to synchronize data (national consultancy).
	4.6 Support vertical data flows and data management by training and provision of hard and soft ware	DECAFIREP Hanoi has soft ware which can be adapted to local needs. Training could be done by DECAFIREP staff.
5. MCS capacities for monitoring and surveillance of inshore fisheries on local government level improved	5.1 Assess human resource needs of districts and communes	On provincial level, focus of MCS will be on larger and offshore vessels. Additional monitoring and surveillance capacities are needed on district and commune level, to cover small scale inshore fishing and to compliment MCS of larger vessels when fishing in near shore waters. The development of monitoring and surveillance capacities on local level needs to be coordinated with efforts to empower FAs in right based fisheries management.
	5.2 Develop HRD plan and support its implementation	The human resource needs assessment/ HRD plan should be part of the baseline survey proposed below, implementation should be done by Sub DECAFIREP staff under the guidance of the Economics Department of the University of Nha Trang (national consultancies).
	5.3 Provide logistic support including small patrol vessels	

Results	Activities	Comments
6. Development of coastal fisheries associations supported	<p>6.1 Carry out a baseline survey of coastal fishing communities including:</p> <ul style="list-style-type: none"> • Location, demography and socio-economic structure of coastal communities including a poverty and vulnerability assessment and assessment of livelihood assets, • Structure of coastal fishing, resource availability, conflicts; • Structure, potentials and constraints of the post harvest sector; 	<p>The survey should build on the assessment of fishing capacity work by FAO/IMOLA in Quang Nam and, if possible, combined with follow up assessments in TT Hué and Quang Tri. Methodology and supervision should be provided by an international consultancy.</p> <p>The survey should be carried out by staff of the Economics Fishing Technology Departments of the University of Nha Trang, together with the University staff doing the fishing capacity assessment. If RFLP has no technical staff in place by then, IMOLA could provide additional technical assistance, and existing studies¹² need to be consulted.</p> <p>The survey team should include some Sub DECAFIREP and District staff, on the job training on participatory appraisal methodologies should be extended to them.</p> <p>POSMA</p> <p>There are six embryonic marine FAs in TT Hué. The potential for successful coastal FA is little known; while, for example, in TT Hué lagoon communities are a good organizational platform for TURF based FAs, coastal fishers may prefer to organize themselves also according to principle gear or type of vessel used. Identification should be done during or back to back with the survey, by the same implementing partners.</p>
	6.2 Identify pilot communities/stakeholder groups interested to form FAs	Lack of information and knowledge of legal provisions has been found to be a major constraint to the formation of FAs ¹³ . This activity should be done during or back to back with the survey, by the same implementing partners.
	6.3 Disseminate information regarding existing legal and regulatory frameworks	Co-management, as an option for small scale fisheries management, is still not fully understood by fishers, local government and provincial authorities. Information including lessons learned should be disseminated in sub provincial workshops by Sub DECAFIREP staff and facilitated by IMOLA and Nha Trang University (national consultants).
	6.4 Inform coastal communities/communes about option and potential of co-management and FAs	In the existing hierarchical organization of fisheries management institutions the PFAs can play a pivotal role in fostering co-management (oversight on community level, vertical and horizontal communication, representation etc.). At present, capacities are weak or inexistent. RFLP can be instrumental in establishing PFAs as a major management institution, by providing training (by national consultants) and logistical support.

¹² PRA/SLA study, socio-economic survey, co-management feasibility studies, guidelines on methodology

¹³ E.g. by Bentvoglio, IMOLA 2009

Results	Activities	Comments
	6.5 Strengthen existing PFAs and assist in the establishment of a PFA in Quang Tri	Findings in TT Hué show that there are still uncertainties regarding regulations and devolvement of right based fisheries management/co- management. In the other two provinces, efforts to implement respective legal and regulatory provisions have yet to start.
	6.6 Improve regulations and mechanisms and promote implementation (including financing) of devolving management functions to local, commune and FA levels	RFLP would be well placed to support these efforts, drawing on IMOLA experiences and using IMOLA technical capacities. Guidance should be requested from DECAFIREP legal department, activities should coordinated with respective efforts by FSFS II and Norwegian assistance on central level.
	6.7 Explore possibilities to create sustainable benefits for FA members	RFLP should create incentives for fishers to join FAs, e.g. consolidate fishing right, facilitate saving and credit schemes, training, bulk purchase of equipment etc.
	6.8 Assist in the establishment of a cost efficient and functional M&E framework	Regular M&E of delivery and impact is essential for the successful implementation of this output. M&E has to be designed in a participatory fashion, training will be needed on all levels; on local, commune and FA level, self evaluation will probably most effective.
	6.9 Review and adjust planned activities three monthly on the base of M&E findings	Review and adjustment needs to involve stakeholders on all levels and to equally participatory and transparent. A review panel should be in place in each province, and on RFLP management level.

Output 2: Safety at sea improved

Results	Activities	Comments
1. Provincial authorities assisted in enforcement of safety regulations	1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes	The assessment should be done for every province and record data for different fleet segments, gear types and fishing grounds, as well as for accidents which happen as a result of conflicts. National consultants, e.g. from Nha Trang University and Sub DECAFIREP staff should carry out the assessment.
	1.2 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and FAs	Monitoring and data management is needed to record impacts and improve acceptance of safety at sea measures and regulations, and to adjust the latter. The implementing partners should be the same than for 1.1.
	1.3 Include safety at sea in the training of inspectors and monitor enforcement	Compliance is presently often circumvented informally and the provisions of the Fisheries Law regarding role, status and powers are still little understood on province level. Training should be done by the implanting partners mentioned above and monitoring should be done by the Sub DECAFIREPs
	1.4 Facilitate vertical and horizontal data exchange	Data exchange, to central level and to other provinces would facilitate learning and a common understanding of needs and options.
2. Awareness of fishers on safety issues, existing regulations and risk reduction, and acceptance of measures for improvement raised	1.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations	The assessment should be done for clusters of fishing communities, to capture area specific characteristics of present situations and options employing participatory approaches. National consultants should collaborate with Sub DECAFIREP staff and representatives of communes and FAs to carry out the assessment. The campaigns should be done for clusters of fishing communities, to reduce costs.
	1.2 Conduct awareness campaigns in communes and FAs on existing regulations, major issues and risk reduction options	National consultants should collaborate with Sub DECAFIREP staff in this activity.
	1.3 Train communes and FAs in risk reduction strategies and enable them to sustain training impacts by regular follow up training	The National Center of Agriculture and Fisheries Extension (NCAFE) is developing models to improve safety at sea. Training contents need to be streamlined with existing efforts to the extent possible and lessons learned/impacts need to be reported to NCAFE. First series auf training workshops should be carried by national consultants in collaboration with Sub DECAFIREP staff. Crew members of offshore vessels need to be trained as well; they are living in the same community as small scale fishers and are equally if not more at risk.
	1.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment	NCAFE has a loan scheme which covers 30% of total costs but there has been little response from fishers. RFLP should explore/identify other possible finance sources

Results	Activities	Comments
3. FAs enabled to promote compliance	3.1 Include enforcement of compliance in management functions of FAs	This should be done in the context of revising regulations on devolvement of management functions discussed above.
	3.2 Facilitate the establishment of communication and reporting linkages with local and province government	Communication and reporting would increase transparency and accountability of all management institutions involved and enables monitoring. RFLP could provide advice and equipment, e.g. computer hard and soft ware.
4. Explore possibilities to develop a boat building standard (Code) for vessels with 30HP> to <90HP	4.1 Assess best practices in the region (Boat Building Codes) or similar quality and safety standards	Control mechanisms are in place for vessels 90HP> but not for smaller vessels. An international consultancy input may be required. Part of the assignment would be to train Sub DECAFIREP staff.
	4.2 Draft standard/Code	The same consultancy could be used but duration would need to be extended to evaluate present practices, needs and acceptance in other provinces and at central government level. Guidance should be provided by the relevant department of FAO.
	4.3 Lobby DARD to introduce standard and include compliance in regulations	On the base of the above and in coordination with other assistance agencies. Support from the media may be of assistance.

Output 3: On board handling and storage of catches improved

Results	Activities	Comments
1. Needs and potentials of improving handling and storage of catches assessed	1.1 Carry out an assessment of present practices in each of the three provinces	The assessment should be done for every province and record data for different fleet segments and main target species/species groups. National consultants, e.g. from Nha Trang University could carry out the assessment.
	1.2 Evaluate lessons learned, best practices and existing quality and sanitary standards from other provinces and from the region	The assessment should be done for every province and for different fleet segments and main target species/species groups. National consultants, e.g. from Nha Trang University could carry out the assessment. The DANIDA POSMA programme should be requested to provide guidance.
	1.3 Investigate market demand and potential for improved products	The assessment should be done for every province and for different fleet segments and main target species/species groups. National consultants, e.g. from Nha Trang University could carry out the assessment. The DANIDA POSMA programme should be requested to provide guidance.
2. FAs informed and trained regarding needs and potentials for improving handling and storage practices	2.1 Produce training packages based on the results of output 1	Training packages should be specific for every province and for different fleet segments and main target species/species groups. Training would be done by Sub DECAFIREPs with the assistance of Nha Trang University, under guidance from POSMA.
	2.2 Extend training to fishers and FAs	Training would be done by Sub DECAFIREPs with the assistance of Nha Trang University. Training approaches should invite the active participation of fishers.
	2.3 Monitor training impact and adjust training contents accordingly	Monitoring and adjustment should be done participatory, with Sub DECAFIREPs, commune and FA representatives and representatives of buyers and traders.
3. Inspectors trained in quality control and giving to advice to fishers	3.1 Train inspectors in national and international quality standards including traceability	Inspections of sanitary standards and traceability are high on the agenda of MARD but provinces have no capacities. Because of the international standards required for export from next year, an international consultancy would be required and used, simultaneously, to transfer knowledge to Sub DECAFIREPs and other institutions, like the Nha Trang University and provincial universities (if standards are implemented, capacities for laboratory inspections will be required).
	3.2 Train inspectors in responsible conduct of inspections	Presently inspections are not always transparent and accountable and responsible conduct is required to increase acceptance by the fishers.
	3.3 Develop monitoring and reporting scheme for inspectors and provide training	Data and information will be needed to be recorded, managed and made available to central level control agencies. Both activities could be carried out by national consultants, facilitated by the international consultant and guided by FAO.

Results	Activities	Comments
4. Improve availability, in quantity and quality, of ice and promote use of ice	4.1 Investigate present ice making capacities and quality of product	The assessment should include total capacity per province, quality, prices, seasonality of demand and accessibility to small scale fishers. The assessment should include practices and perception of ice use by fishers, constraints and needs to overcome them.
	4.2 Assess ice use	Ice is often of bad quality, block ice is used instead of flake ice and producers cannot cope with seasonally changing demand.
	4.3 Identify gaps and shortcoming of ice production and identify solutions	Present holding practices result in crushed and damage catches and ice use is wasteful because of lack of insulation/exposure to sun.
	4.4 Promote the use of customized (according to vessel and target species) insulated fish containers	All activities could be carried out by national consultants, under the guidance of POSMA, DECAFIREP and the University of Nha Trang University.

5.3 ASSESSMENT AND RESTRUCTURING OF INDICATORS

Annex 2 of the ProDoc shows a generic logical framework including objectively verifiable indicators, methods of verification and assumptions on objective and output level¹⁴. Indicators were formulated using quantifiable parameters and qualitative measurements as perception scorecards. However, the conceptual framework proposed is highly aggregated. It will be useful for monitoring on output level and for midterm and final evaluations. To monitor project progress, indicators are proposed for the restructured outputs and results in the following. Where realistic, time lines are proposed; where this was not possible timelines should be decided during the national inception workshop.

¹⁴ The matrix is attached in the Annex

Output 1	Indicators	Methods of Verification
Result 1	Regulations have been approved and adopted by PCCs (by end of year one)	Decision of PCCs
	Masterplan including plan to combat IUU fishing and manage fishing capacity	Planning documents
Result 2	Registration of vessel < 20 HP has been updated (by months 6 after inception) and is kept up to date	Vessel register
Result 3	Training delivered (by month 6) and retraining program in place	RFLP M&E
	At least 2 officials/district mandated for M&E and data management	District records
	At least 2 FA members receive incentives for M&E	Provincial data entries
Result 4	Vessel licensing system validated/updated (by month 6)	DECAFIREP records RFLP M&E, midterm review, final evaluation
	Transparent and accountable port and vessel inspections are carried out/documented according to master plan (year 2 to end of Programme)	
	Results of pilot observer programs available, logbooks restructured according to results (by end year 2)	
	Surveillance and control protocol between Sub DECAFIREPs and the provincial Boarder Coast Guards signed (by end year 1)	
	MCS data bank in operation (by end year 1)	
Result 5	Surveillance reports from districts, communes and FAs are congruent with MCS records on provincial level (years 3 and 4)	DECAFIREP records, RFLP M&E, midterm review, final evaluation
	Breeches of zoning and gear regulations have decreased by 80% (zoning) and 50% (gear) by end of project	
Result 6	FAs are established according to minimum targets set by the baseline survey (nn)	RFLP M&E, midterm review, final evaluation
	FAs perceived as functional, transparent, accountable and effective in sustaining livelihoods by members (year 3 and 4)	Periodic surveys on FA level using self evaluation methods
	Provincial and district authorities perceive FAs as responsible and effective partners in co-management (by year 3)	Periodic structured interviews of province and district authorities

Output 2	Indicators	Methods of Verification
Result 1	Compliance with safety at sea regulations achieved for 80% of FA fishers and offshore vessels (year 3)	Inspection records, RFLP M&E
Result 2 and 3	Accidents of FA fishers decreased by 80%	Provincial records
	Costs of safety equipment considered justified by 80% of FA fishers (by year 3)	Periodic surveys on FA level using self evaluation methods
Result 4	Boat building standard developed and implemented in target provinces (by year 2)	PPC decision, RFLP M&E
	Boat building standard endorsed by central government	MARD decision

Output 3	Indicators	Methods of Verification
Result 1	Strategy for improving handling and storage endorsed by fishers (by year 1)	Periodic surveys on FA level using self evaluation methods
Result 2	Investment in better storage facilities considered justified by 80% of fishers (by year 2)	Periodic surveys on FA level using self evaluation methods
Result 3	Evaluation of training impact show increase in knowhow of inspectors sufficient for controlling sanitary standards (by end of year 1)	Periodic evaluation of training impact by trainers
Result 4	Use of ice increases by 25% by year 2 and by 50% (where economically viable) end of project	RFLP records
	Spoilage is reduced from 25 to 30% now to <10% end project	Periodic surveys on FA level using self evaluation methods
Result 5	80 % of FA fishers use insulated boxes (where economically viable) by end project	Periodic surveys on FA level using self evaluation methods
	Spoilage is reduced from 25 to 30% now to <10% end project	

It is recommended that, during inception, a work plan is elaborated for all the activities endorsed by the national inception workshop following the matrix below. This will provide transparency for RFLP management and staff regarding progress achieved at any given time, and motivation to staff and implementing partners to deliver.

Result	Time frame	Mile-stones	Implementing partner	RFLP staff responsible	Budget delivery
Activity					

5.4 SUMMARY MATRIX OF OUTPUTS, RESULTS, AND POTENTIAL IMPLEMENTING PARTNERS

The following matrix shows the indicators identified for the results proposed to achieve outputs, and potential implementing partners for the activities.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level

Results	Activities	Potential implementing partners
1. Provincial authorities assisted in drafting of regulations and master plans for the management of inshore fisheries	1.1 assist in the formulation of provincial master plans	Sub DECAFIREP staff, assisted by international consultant. Activities have to be coordinated with similar efforts on province (FSSP II in Hué) and national level (Norway, University of Nha Trang). DONRE, with assistance from IMOLA
	1.2 assist in the delimitation of provincial inshore fishing grounds	DONRE, with assistance from IMOLA
	1.3 assist in zoning of inshore waters by district	
2. Provincial authorities assisted in improved registration of vessel < 20 HP	2.1 update district registers	Sub DECAFIREP staff, assisted by national consultant. Activities have to be coordinated with FSSP II in Hué.
	2.2 improve data transfer to province registers	
3. M&E capacities on district and commune level improved	3.1 Facilitate training of district officials in M%E methodologies and data management	Training would be done by Sub DECAFIREP staff previously trained by DECAFIREP Hanoi and assisted by national consultant.
	3.2 Facilitate training of commune and FA members in M%E methodologies	Sub DECAFIREP staff should be facilitated to carry out training/learn on the job using national consultants from Nha Trang University (NTU) and IMOLA.
	3.3 Design incentive scheme	National consultants from NTU and IMOLA.
	3.4 Provide hard and soft ware	RFLP

Results	Activities	Potential implementing partners
4. MCS capacities of provincial authorities to manage coastal fisheries improved	4.1 Review and improve vessel licensing system	
	4.2 Train inspectors in port and at sea inspections (including safety at sea and quality control)	Sub DECAFIREP staff that has received training on activities 4.1 to 4.4 from DECAFIREP Hanoi. Trainers should be identified by DECAFIREP Hanoi with the assistance of RSPS II. RFLP international and national consultant to validate, consolidate and upgrade training. Sub DECAFIREP staff, assisted by national consultant (NTU). Activities should be streamlined with existing efforts (guidelines) by DECAFIREP Hanoi and FSSP II.
	4.3 Facilitate transparent and accountable port and vessel inspections	
	4.4 Facilitate (scientific) observer programs on pilot scale	
	4.5 Facilitate data exchange through a surveillance and control protocol between Sub DECAFIREPs and the provincial Boarder Coast Guards	National consultant
	4.6 Support vertical data flows and data management by training and provision of hard and soft ware	RFLP national IT consultant.
5. MCS capacities for monitoring and surveillance of inshore fisheries on local government level improved	5.1 Assess human resource needs of districts and communes	Survey team (see below)
	5.2 Develop HRD plan and support its implementation	Sub DECAFIREPs, under the guidance of the Economics Department of the University of Nha Trang (national consultancies).
	5.3 Provide logistic support including small patrol vessels	RFLP, other donors

Results	Activities	Potential implementing partners
6. Development of coastal fisheries associations supported	<p>6.1 Carry out a baseline survey of coastal fishing communities including:</p> <ul style="list-style-type: none"> • Location, demography and socio-economic structure of coastal communities including a poverty and vulnerability assessment and assessment of livelihood assets, • Structure of coastal fishing, resource availability, conflicts; • Structure, potentials and constraints of the post harvest sector; 	Survey team: International and national consultants (NTU), Sub DECAFIREP staff, IMOLA for advice based on project experience, POSMA for advice on post harvest.
	6.2 Identify pilot communities/stakeholder groups interested to form FAs	Survey team
	6.3 Disseminate information regarding existing legal and regulatory frameworks	Sub DECAFIREPs, national consultants, with advice from IMOLA.
	6.4 Inform coastal communities/communes about option and potential of co-management and FAs	Sub DECAFIREPs, national consultants, with advice from IMOLA.
	6.5 Strengthen existing PFAs and assist in the establishment of a PFA in Quang Tri	National consultants (NTU, VINAFIS).
	6.6 Improve regulations and mechanisms and promote implementation (including financing) of devolving management functions to local, commune and FA levels	Sub DECAFIREPs, assisted by national consultants with advice from IMOLA. Guidance should be requested from DECAFIREP legal department, activities should be coordinated with respective efforts by FSPS II and Norwegian assistance on central level
	6.7 Explore possibilities to create sustainable benefits for FA members	National consultants
	6.8 Assist in the establishment of a cost efficient and functional M&E framework	National consultants.
	6.9 Review and adjust planned activities three monthly on the base of M&E findings	Review panel to be facilitated by RFLP

Output 2: Safety at sea improved

Results	Activities	Potential implementing partners
1. Provincial authorities assisted in enforcement of safety regulations	1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes	Sub DECAFIREP staff, national consultants, e.g. from NTU.
	1.2 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and FAs	Sub DECAFIREP staff, national consultants, e.g. from NTU.
	1.3 Include safety at sea in the training of inspectors and monitor enforcement	Sub DECAFIREPs, national consultants from National Center of Agriculture and Fisheries Extension (NCAFE), DECAFIREP Hanoi.
	1.4 Facilitate vertical and horizontal data exchange	National IT consultant
2. Awareness of fishers on safety issues, existing regulations and risk reduction, and acceptance of measures for improvement raised	2.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations	National consultants, Sub DECAFIREP staff, representatives of communes and FAs.
	2.2 Conduct awareness campaigns in communes and FAs on existing regulations, major issues and risk reduction options	National consultants, Sub DECAFIREP staff, representatives of communes and FAs.
	2.3 Train communes and FAs in risk reduction strategies and enable them to sustain training impacts by regular follow up training	Sub DECAFIREP staff, national consultants (NCAFE).
	2.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment	Sub DECAFIREP staff, national consultants (NCAFE).
3. FAs enabled to promote compliance	3.1 Include enforcement of compliance in management functions of FAs	Sub DECAFIREPs, assisted by national consultants (e.g. DECAFIREP legal department), activities should be coordinated with respective efforts by FSPS II and Norwegian assistance on central level.
	3.2 Facilitate the establishment of communication and reporting linkages with local and province government	National IT consultant, RFLP for computer hardware and software.

Results	Activities	Potential implementing partners
4. Explore possibilities to develop a boat building standard (Code) for vessels with 30HP> to <90HP	4.1 Assess best practices in the region (Boat Building Codes) or similar quality and safety standards	International consultant
	4.2 Draft standard/Code	International consultant
	4.3 Lobby DARD to introduce standard and include compliance in regulations	RFLP, in coordination with other assistance agencies.

Output 3: On board handling and storage of catches improved

Results	Activities	Potential implementing partners
1. Needs and potentials of improving handling and storage of catches assessed	1.1 Carry out an assessment of present practices in each of the three provinces	National consultants, e.g. from NTU, with Sub DECAFIREP staff. DANIDA POSMA programme to provide guidance.
	1.2 Evaluate lessons learned, best practices and existing quality and sanitary standards from other provinces and from the region	National consultants, e.g. from NTU, with Sub DECAFIREP staff. DANIDA POSMA to provide guidance.
	1.3 Investigate market demand and potential for improved products	National consultants, e.g. from NTU, with Sub DECAFIREP staff. DANIDA POSMA to provide guidance.
2. FAs informed and trained regarding needs and potentials for improving handling and storage practices	2.1 Produce training packages based on the results of output 1	National consultants, e.g. from NTU, with Sub DECAFIREP staff. DANIDA POSMA to provide guidance.
	2.2 Extend training to fishers and FAs	National consultants, e.g. from NTU, with Sub DECAFIREP staff. DANIDA POSMA to provide guidance.
	2.3 Monitor training impact and adjust training contents accordingly	Sub DECAFIREPs, national consultant, with commune and FA representatives.
3. Inspectors trained in quality control and giving to advice to fishers	3.1 Train inspectors in national and international quality standards including traceability	International consultants to train trainers (Sub DECAFIREP staff, national consultants).
	3.2 Train inspectors in responsible conduct of inspections	Sub DECAFIREPs, national consultants (e.g. DECAFIREP Hanoi).
	3.3 Develop monitoring and reporting scheme for inspectors and provide training	National consultants, facilitated by the international consultant and guided by FAO.
4. Improve availability, in quantity and quality, of ice and promote use of ice	4.1 Investigate present ice making capacities and quality of product	National consultants, under the guidance of POSMA, DECAFIREP.
	4.2 Assess ice use	National consultants, under the guidance of POSMA, DECAFIREP
	4.3 Identify gaps and shortcoming of ice production and identify solutions	National consultants, under the guidance of POSMA, DECAFIREP
	4.4 Promote the use of customized (according to vessel and target species) insulated fish containers	National consultants, under the guidance of POSMA, DECAFIREP

PART 2 SRI LANKA

2.1 PROVISIONS OF THE PRODOC

According to respective Annex of the ProDoc, in Sri Lanka the Programme will work in two districts in the North West of the island, Negombo and Chilaw lagoons, and the estuary of Puttalam district. At some time after drafting the ProDoc, Chilaw was dropped by the Ministry of Fisheries and Aquatic Resources (MFAR). The identification mission proposed the following strategic approach for the RFLP intervention in Sri Lanka, in line with the objectives of MAFR's Ten-year Development Policy Framework. Accordingly, the Programme will:

- “Demonstrate the implementation of co-management mechanisms for coastal resources;
- Supplement work on safety at sea already undertaken under the national FAO/Italy project and the global FAO/Multi-donor project; safety at sea is not a serious concern in sheltered lagoon areas but very important in more exposed coastal waters;
- Improve post-harvest options for fisher families, adding value to produce that might otherwise be sold cheaply or discarded;
- Promote new livelihood options, including aquaculture, in coastal lagoon fisher communities;
- Improve financial services, including savings and pensions, largely through the strengthening of existing cooperatives and education of fishers on money management to facilitate higher levels of fiscal discipline”.

The ProDoc proposed the following five outputs, respective activities and a work plan:

1. Co-management mechanisms

Outputs	Activities	Y1	Y2	Y3	Y 4
1.1 Clarification of legal and policy issues affecting co-management of aquatic resources	Laws, regulations and policies studied				
	Co-management issues highlighted and used in discussions with Govt and communities				
	Drafting of legal and regulatory frameworks in support of co-management				
1.2. Confirmation of suitable lagoon project sites for co-management	Collection and compilation of secondary data and survey reports.				
	Field trips and stakeholder meetings				
1.3. Baselines established for each lagoon site, highlighting stress factors	Collection of data on destructive fishing techniques, unregulated shrimp farming, mangrove cutting, etc that are adversely affecting lagoons				
	Importance of lagoon fishing to communities highlighted.				
1.4. MAFR staff trained in co-management	Assess training needs of MAFR				
	Conduct training and workshops				
	Assess training impact				
1.5. Co management plans developed for lagoon areas	Community workshops to introduce Co Management concepts				
	Stakeholder consultations to develop co management plans.				
	Monitoring indicators agreed with Govt and communities				
	Co management plan development, process documented.				
1.6. Co-management plans implemented by institutions	Support implementation and monitoring of plans.				
1.7. Enforcement mechanisms established	Discussions with communities to develop enforcement mechanisms				
	Design participatory enforcement mechanisms				
	Awareness raising of new regulations				
1.8. Fishing pressure reduced in lagoon areas.	Promotion of livelihood diversification activities				
	Introduction of close seasons				
	Awareness training on harmful gears				
1.9. Improved habitat management practices	Train and assist communities in identification and implementation of habitat protection measures				
	Provide equipment for resource and habitat conservation				
	Mobilise communities for mangrove replanting in degraded areas.				
1.10. Co-management successes and issues highlighted - to Government and NGOs	Co management workshops				
	Production of materials and reports				

2. Measures to improve safety at sea and reduce vulnerability

Outputs	Activities	Y1	Y2	Y3	Y 4
2.1. Communities at risk from accidents at sea identified	Review secondary data on accidents at sea in project areas				
2.2. Assessment of accidents and their causes	Village workshops on accidents and their causes.				
	Design and implement accident data gathering mechanism				
2.3. Awareness of risks and dangers raised among stakeholder	Awareness raising campaigns				
	Awareness training courses implemented				
	Agreement on measures that could improve personal safety				
2.4. Improved safety measure implemented and their impact monitored	Local registry of accidents at sea maintained				

3. Measures for improved quality of fishery products and market chains

Outputs	Activities	Y1	Y2	Y3	Y4
3.1. Post harvest issues assessed	Studies of local post-harvest handling and marketing practises				
	Identify areas with best potential for improvement				
	Implement improvements				
3.2: Fishers, processors and traders trained in fish handling processing and business management	Training needs assessed				
	Training contents developed from NARA materials and courses designed				
	Training carried out				
	Training impact assessed				
3.3. On board fish quality improved	Feasibility studies of the use of ice and insulated boxes.				
	Pilot operations with boxes and ice on small inshore boats.				
	Assessment of value added to catches.				
	Promotion of technology.				
3.4: Pilot operations for value added products and marketing	Identify products and feasibility				
	Provide basic processing and marketing materials and equipment				
	Implement pilot operations				
	Involve stakeholders in evaluating pilots				
	Monitor performance of value added products in the market place				

4. Diversified income opportunities for fisher families

Outputs	Activities	Y1	Y2	Y3	Y4
4.1. Livelihood characteristics in lagoon areas understood	Livelihood Studies				
	Identify threats to livelihoods				
	Identify areas for interventions				
4.2. Livelihood and gender needs and priority analyses	Workshops to discuss livelihood interventions				
4.3. Financial and technical feasibility analyses of income options	Carry out financial and technical feasibility analyses of income options				
4.4. Associations/groups formed and or strengthened for producers and service providers	Creation of groups around viable income activities				
	Training courses to strengthen group organisations and management.				
4.5. Training for exponents of diversified livelihoods	Design and implement training courses				
	Assess training impact				
4.6. Pilot operations for products and services	Provide basic equipment and inputs for pilot operations				
	Support implementation of pilot operations				
	Monitor market acceptance of new products/services				
	Assess social impact of pilot operations				
	Assess environmental impact of diversified activities				
4.7. Pilot operations for small-scale aquaculture	Assess options for small-scale aquaculture opportunities				
	Assess environmental impact of aquaculture in the project areas				
	Highlight unsustainable aquaculture practices				
	Training in sustainable and environmentally friendly aquaculture				
	Support implementation of pilot operations				
	Assess impact of pilot operations				
4.8. Abandoned shrimp farming areas brought under production	Assess potential for group management of abandoned shrimp farms.				
	Secure leases from banks.				
	Pilot aquaculture operations in shrimp farms.				

5. Facilitated access to microfinance services for fishers, processors and vendors

Outputs	Activities	Y1	Y2	Y3	Y4
5.1. Policies of lending institutions updated	Document and analyze existing lending policies and practices in communities.				
5.2. Community members trained in financial planning and management	Identify training contents and design courses				
	Conduct training for community members				
	Promote group saving				
	Promote participation in government pension schemes				
5.4. Microfinance briefing materials produced and disseminated	Design and produce briefing materials				
	Disseminate briefing materials				
5.4. Improved financial position attained by fisher families	Assess consumer satisfaction with improved access to microfinance arrangements.				

The ProDoc did not provide a stakeholder or institutional analysis but identified the following implementation arrangements: MFAR was proposed to be the implementing agency, and would draw specific expertise from its specialized agencies and departments, e.g. the Department of Coast Conservation (CCD), the Department of Fisheries and Aquatic Resources (DFAR), the National Aquaculture Development Authority (NAQDA), the National Aquatic Resources Research and Development Agency (NARA) and the National Institute of Fisheries and Nautical Engineering (NIFNE). RFLP activities will be implemented with guidance and oversight of a National Coordinating Committee comprised of representatives of MAFR, local authorities and FAO and headed by the Secretary of Fisheries.

A Project Coordination Office was proposed to be established in at the DFAR district office in Puttalam¹⁵. The District Fisheries Officers, assisted by the National Project Coordinator, the Communication & Reporting Officer and consultants engaged by the project were assigned the responsibility for implementation of Programme activities.

5.5 EX ANTE EVALUATION OF OUTPUTS

The assessment of the proposed outputs in the general context and present situation of the coastal and lagoon fisheries of the two districts resulted in the following findings and conclusions.

¹⁵ This location was changed to the DFAR office in Negombo, because of reluctance of national staff to be posted in Puttalam.

5.5.1 FISHERIES CO-MANAGEMENT

The need for improved management of coastal and lagoon resources has been recognized by GoSL for decades and legal and regulatory provisions have been enacted accordingly. In Negombo and Puttalam districts, a plethora of management institutions exist¹⁶, some of which allow for the participation of representatives of fishing communities; and management plans for lagoon and special areas (SAMs) have been or are being developed. There are also fisheries co-operative societies in place, as well as co-management mechanisms as fisheries committees, with varying degrees of organization and cohesiveness.

All vessels, including the small traditional boats are registered and licensed, and area restrictions of gear¹⁷ as well as limits of amounts of gear per boat exist. Boats and vessels entering the sector are inspected for safety (FAO developed a Boat Building Code). Effectively, however, management is patchy at the most; in particular management of fishing capacity (licenses are given without considerations of resource availability and sustainability) and combating IUU fishing, which results in *de facto* free and open access condition. Although each district has a Chief Inspector, and each division an inspector, their regulatory functions depend on collaboration with the Navy (there are small RFP patrol boats in both districts but no skippers to operate them).

Lack of management (e.g. enforcing bans of destructive and illegal gear such as push nets, trawls, drag nets, mono-filament nets), together with heavy pollution of the lagoons (e.g. from domestic waste, industrial effluents, waste generated from fertilizer and chemicals used for farming and shrimp culture), habitat destruction by land filling and unregulated development of large scale shrimp farming have resulted in loss of biodiversity and significant depletion of stocks. Resource degradation is further fueled by population pressure, with new entrants often using destructive gear, including internally displaced people (IDPs) from the former war zone.

Although production (landings) is monitored on division, district and central level (NARA), effort is not. There are estimations of MSY and even MEY from the early 90s, and FAO conducted a stock assessment in 2000, but updated, transparent and credible reference points which would provide legitimacy and acceptability for essential management measures as access limitation are not available. However, some groups (e.g. stake trap operators) have realized the precarious state of the resource and have introduced self management measures as rotational access limitations.

The importance of reference points was demonstrated by the NARA/FAO project in Kalpitiya, which assessed the status of five commercially important species. The assessment showed the depletion of stocks for all of these species and induced fishers to self regulate effort by imposing spatial and temporal restrictions on themselves.

¹⁶ E.g. in Negombo a Lagoon Fishery Management Authority and 10 Fisheries Committees.

¹⁷ E.g. for shrimp trawling, enforced by co-operative societies.

Shortcomings of sector management were addressed by the 10 year development policy framework of the Fisheries and Aquatic Resources Sector (2007 – 2016), which formulated five postulates to improve the situation:

- Promote the principles of responsible fisheries;
- Promote co-management of fisheries through participatory management plans;
- Improve the fisheries management framework by amending and updating the fisheries laws and regulations;
- Enforce fisheries laws and regulations and prevent the use of destructive gears and methods;
- Create awareness on the need and for fisheries management

For co-management these postulates are highly relevant. Without effective enforcement of legal and regulatory provisions by GoSL, as a sovereign function of state, fishers participating in co-management will have little incentives to comply with regulations and access restrictions, whether developed in participatory fashion or imposed from above: Compliance will come at a cost to them; why incur these costs if free riding, IUU fishing, use of destructive gear and habitat degradation continues?

Another major challenge to co-management is the tradition of top down and paternalistic decision making of the GoSL authorities mandated to manage the sector. Here, RFLP would be well placed to facilitate fully participatory management institutions, with management plans and functions co-owned by authorities and legitimately represented fishing communities and fishing co-operatives.

5.5.2 SAFETY AT SEA

To improve safety at sea has become part the agenda of GoSL authorities only recently, and is supported by a national FAO/Italy project and a global FAO/multi-donor project; as part of the post-Tsunami response, life vest jackets were recently provided under an IFAD project (1000 jackets distributed at the East coast).

As in all of Sri Lanka, to improve safety at sea is of pressing importance in Negombo and Puttalam districts. Here, only the multiday vessels fishing mainly offshore and in the high seas have safety equipment and radio communication. The remaining boats and vessels have neither. These comprise inboard engine and outboard engine day boats and traditional boats. Traditional boats fish mainly in the lagoons but a considerable number of them also venture out to sea. Mechanized boats are not allowed in the lagoon and fish exclusively in coastal areas. Many of these boats also migrate to the East coast in the off season, when sea and weather on the West coast are rough. However, others remain and continue fishing also in rough conditions, which is when many accidents occur.

While in the lagoon, risks are limited because here fishing grounds are sheltered, all boats going out to sea without communication and safety equipment are at risk. According to DFAR staff and

fishers interviewed, shortcomings not only concern lack of material as life vests and radios but also lack of awareness of potential risks among the fishers. Lack of training is also the main cause of accidents affecting scuba divers catching sea cucumber, lobsters and chanks (a type of conch) off Kalpithya. Another danger factor signaled by respondents is the lack of mapping of underwater obstacles as reefs, rocks, shipwrecks etc., in the coastal waters off the two districts, but also in coastal fishing grounds of the East coast, where boats fish off season.

5.5.3 IMPROVED QUALITY OF FISHERY PRODUCTS AND MARKET CHAINS

There is some potential to improve the post harvest sector of coastal and lagoon fisheries of the two target districts. DFAR staff estimates the loss of production due to bad handling and storage of catches on board at 30%. While a considerable part of the losses occurs on board of multi-day vessels, improvement of handling and storage on board is also needed for the small scale subsector. Here, Programme interventions could yield measurable and sustainable results, by promoting better treatment and storage of catches and improved use of ice. Traditional processing, mainly drying of fish, can be improved because some drying sites get flooded and others have no shelters, restricting operations to the dry season.

To improve value chains for the benefits of fishers, scope of RFLP appears to be limited. Especially marketing of economically valuable species and species groups is done by a well organized and politically well connected private sector with which fishers and fisher CBOs can hardly compete. An area which could be explored is provision of market information and training in business skills as simple accounting (IUCN is doing this at the moment).

5.5.4 DIVERSIFIED INCOME OPPORTUNITIES FOR FISHER FAMILIES

In the situation of over fishing or excess fishing capacity that is most likely the case in the target districts, and which is typical for many tropical small scale fisheries, to diversify income and employment opportunities for fisher families is only a limited option:

- Small scale marine fishing is already a last resort livelihood option for many fishers; families with marginal incomes would have left the sector already if they have this option. In Sri Lanka, small scale fishing is rooted in century long traditions. Fishers strongly identify with their profession; they are reluctant to take up livelihoods outside the sector. At present it was reported that even more people try to enter the fisheries, including IDP, because entry barriers are low and short term profits can be made.
- In this situation the best option to maintain and improve fishing livelihoods is better resource management, including access limitations and habitat protection and/or restoration. For the latter, possibilities include restoring critical habitats as mangroves and sea grass beds which have been destroyed by large scale shrimp culture. This would increase recruitment and biodiversity in a sustainable way. To use these areas for small scale aquaculture, as considered in the ProDoc, would face the same problems which led

to the abandonment in the first place, at the risk of the households induced to take up such activities.

- To transform fishers into aquaculture operators as way out of overcrowded fisheries is very popular with policy and decision makers. In Negombo lagoon, it has been reported successful for small scale cage culture operations, which are done by some 300 households in the off season. NAQDA has capped cage culture operations at that level, however, arguing that any increase will degrade the lagoon environment further because of affluent and waste generated. In Puttalam, similar attempts have failed.
- There is some potential for supporting diversified income creation outside the sector. They hinge on access to physical assets, however, as land for farming and animal husbandry.
- Tourism is another option (DFAR is presently providing opportunities to divers to obtain diving certification, to work as diving instructors in tourist resorts).

If arresting or limiting entry into small scale fisheries is the policy objective, alternative employment should lead to reduced resource pressure, i.e. induce fishers to exit capture fisheries. To supplement incomes from fishing reduced by compliance with access restrictions, diversified income opportunities could be an option, e.g. for women but should be restricted to household of compliant fishers. Indiscriminately supporting supplementary incomes are likely to maintain fishing operations which would be not economically viable otherwise.

5.5.5 ACCESS TO MICROFINANCE SERVICES FOR FISHERS, PROCESSORS AND VENDORS

In the two target districts, as in all of Sri Lanka, credit is available to small scale fishers and other low income groups from Samurghi Banks created at rural village level and a GoSL subsidized credit programme to small scale entrepreneurs which provides funds in to existing micro-finance institutions /NGOs for on lending through the National Development Trust Fund (NDTF). However, these funds do not reach fisheries co-operative societies. Many fisheries co-operative societies operate credit and saving schemes, with recovery rates reported at almost 95% but with difficulties raising sufficient funds to cater for demand.

RFLP has no budget line which would allow provision of funds to these or others CBO based lending and saving schemes but could lobby existing lending institutions to extend credit to fishers. Many small scale fishers are hiring boats at gear at very high costs, and others are merely hired labor on board of vessels owned by businessmen. The first group borrows from moneylenders and suppliers, at high interest rates, and would benefit if the Programme facilitates access to formal credit. For the other group access to microfinance would probably result in borrowing for consumptive purposes, which could result in more abject poverty.

On the base of these findings, the following table assesses the proposed outputs following different criteria:

	scope	significance¹⁸	costs	feasibility	sustainability	acceptance
Output 1	high	high	low for CBOs, medium for GoSL	medium to high	high if local political and economic interests are kept at bay	high
Output 2	high for safety at sea	high for safety at sea	medium to high	high if finance is available	high	not known
Output 3	medium	high	medium	high for on board improvements	medium	not known
Output 4	low	medium	high for aquaculture	low for aquaculture, not known for others	low for aquaculture, not known for others	not known
Output 5	low	medium	low for facilitating formal credit	not known for facilitating formal credit, medium for COB credit	not known	not known

Accordingly, it is proposed to concentrate RFLP interventions and efforts management/co-management and on improved safety at sea. For output 3, RFLP should focus on improved handling and storage of catches on board and improvement of traditional processing as drying/salting of fish. RFLP support to outputs 4 and 5 should be subjected to feasibility studies at the beginning of Programme operations, in particular regarding small scale aquaculture development, which would absorb considerable funds while, probably, having little impact. A crosscutting option for outputs 3, 4, and five would be training in business skills and basic accounting, including of women.

These recommendations should be discussed, revalidated or readjusted during the national inception workshop and during implementation. According to the final program log frame, the budget should be adjusted, in particular regarding international and national consultancy inputs and contracts. Given the fact that RFLP delivery in Sri Lanka will require a multitude of specialized national consultancy inputs, the proposal of the ProDoc to employ a few subject matter specialists over the full duration of the program should be re-evaluated.

¹⁸ For RFLP objectives

5.6 ASSESSMENT OF OUTPUTS, RESULTS, AND POTENTIAL IMPLEMENTING PARTNERS

According to the findings and evaluation above, it is proposed to restructure the generic Programme Matrix provided in the ProDoc to correspond to sector needs in the two target districts, including a review of potential implementing partners and coordination mechanisms.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level'

Results	Activities	Comments
1. Legal, regulatory and institutional provisions for co-management established on local, district and central level	<p>1.1 Assess existing legal and regulatory provisions and identify shortcomings</p> <p>1.2 Recommend amendments to GoSL through DFARs/MFAR</p> <p>1.3 Lobby MFAR to provide an enabling legal and regulatory framework</p> <p>1.3 Assess existing institutional framework on local (community and division), district and central level</p> <p>1.4. Develop, in participatory fashion, an institutional framework for co-management</p> <p>1.5 Implement framework in the selected project areas together with CBOs and local/district authorities</p>	<p>At present, legal and regulatory provisions are not consolidated and allow political interference, e.g. by local patronages. A national legal consultant should assist the RFLP team in activities 1.1 and 1.2.</p> <p>RFLP should seek alliances with other projects, initiatives and civil society organizations which support co-management of natural resources.</p> <p>The existing framework is complex and, possibly, limited in performance and delivery. A national consultant with expertise in institutional analysis should assist the RFLP M&E staff to carry out the assessment. SWOP methodology should be employed.</p> <p>At present, decision making in existing management institution is dominated by government representatives. In order for communities to take ownership of management measures they need to become empowered and equal partners.</p> <p>Here, MFAR, DFAR and DFAR staff on division level need to cooperate closely with CBO representatives, with support from RFLP staff and consultants.</p> <p>Implementation should be on pilot scale, starting with existing fisheries committees and upstream institutions, closely monitored and adjusted according to experiences. Lessons learned from other locations and areas should be evaluated beforehand.</p>
2. Target areas, communities and CBOs identified and selected	<p>2.1 Carry out a baseline survey of coastal and lagoon fishing communities</p> <p>2.2 Select areas, communities and CBOs</p>	<p>The survey should be conducted by the RFLP M&E staff in close collaboration with district and local authorities. Participation of resource persons from fishing communities should be sought and due attention should be paid to local knowledge (using PRA methods and tools). The survey should include a poverty and vulnerability assessment and an assessment of livelihood assets.</p> <p>Selection need to be done in participatory fashion (by MFAR/DFAR, representatives of fisheries CBOs and RFLP), without interference from vested interests external to the beneficiary groups</p>

<p>3. CBOs empowered for co-management</p>	<p>3.1 Disseminate information regarding existing legal and regulatory frameworks and amendments enabling co-management</p> <p>3.2 Inform coastal communities/communes about option and potential of co-management</p> <p>3.4 Train co-operative societies and other fisheries CBOs in co-management and monitoring of catch and effort</p> <p>3.5 Strengthen existing fishery committees and other co-management institutions</p> <p>3.6 Improve and communication capabilities of fisheries societies and other management institutions</p>	<p>Dissemination workshops should be conducted on district level, open for all fishers of the district, and on division/community level for the divisions/communities selected for RFLP interventions. The activity should be carried out by DFAR staff and facilitated by RFLP.</p> <p>On district level, open for all fishers of the district, and on division/community level for the divisions/communities selected for RFLP interventions. The activity should be carried out by DFAR staff and facilitated by RFLP.</p> <p>Training packages on co-management, political participation, mediation and conflict resolution, socio-political representation, transparency and accountability should be developed by RFLP with a national specialist consultant or, if not available, by an international consultant. Training will be carried out by DFAR staff and facilitated by RFLP.</p> <p>RFLP should promote participatory decision making, political participation and representation by advice and training. Training should also focus on communication, transparency and accountability.</p> <p>Experiences and lessons learned should be communicated to other communities and co-operatives, downward to members and upward to GoSL authorities through formalized reporting.</p>
<p>4. M&E capacities on district, division and community level improved</p>	<p>4.1 Facilitate training of district and division staff in M&E methodologies and data management</p> <p>4.2 Facilitate training of DFAR division level staff and CBOs in M&E of catches and effort, conflicts and IUU fishing</p> <p>4.3 Provide hard and soft ware</p>	<p>Training would include catch and effort monitoring, monitoring of conflicts and infringements and monitoring of socio-economic indicators. Training would be done by NARA staff and facilitated by RFLP staff and national consultant inputs.</p> <p>M&E by DFAR staff should be complimented by M&E on community and division level including on surveillance, to empower CBOs and DFAR division level staff towards participatory MCS. Monitoring catches and effort will also increase fisher's awareness of stock depletion</p> <p>RFLP should provide equipment where not yet in place.</p>
<p>5. Monitoring, control and surveillance (MCS) capacities of DFAR to manage coastal and lagoon fisheries improved</p>	<p>5.1 Assist MFAR to draft NPOAs on combating IUU fishing and managing fishing capacity</p> <p>5.2 Train inspectors in port and at sea inspections (including safety at sea and quality control)</p> <p>5.3 Facilitate transparent and accountable port and vessel inspections</p> <p>5.4 Explore the feasibility of (scientific) observer programs</p>	<p>The NPOA IUU is mandatory for exports of fish and fishery products to the EU, and managing Sri Lanka's fishing capacity, will contribute to regional and international efforts towards responsible and sustainable fisheries. For results 4.1 to 4.3 international consultant inputs may be desirable.</p> <p>Training should be done by MFAR specialized staff and facilitated by RFLP. The same inspectors would be capacitated to monitor compliance of fisheries regulations, safety at sea measures and quality/hygiene standards.</p> <p>RFLP should provide logistic support, and facilitate backstopping and monitoring by DFAR and MFAR.</p> <p>Observer programs could be supported on pilot scale to test feasibility and cost effectiveness.</p>

	5.5 Support vertical data flows and data management by training and provision of hard and soft ware	Improved data exchange and management will increase accessibility and use of data for resource/capacity management on all levels. RFLP could provide training/training of trainers by national consultants.
6. Enable communities and DFAR and communities to rehabilitate stocks and restore habitats	<p>6.1 Survey lagoon and coastal areas for potential habitat restoration and stock rehabilitation</p> <p>6.2 Explore the feasibility of restoring habitats and fish stocks</p> <p>6.3 Support Fisheries Committees and DFARs to formulate restoration and management plans and implement them</p>	<p>The survey should include an assessment of local knowledge regarding former breeding and nursing areas destroyed by development. NARA and qualified Universities or NGOs should be supported by RFLP to carry out and document the survey. This activity should include biological, social and economic feasibility, involving the same implementing partners</p> <p>Because of its complexity, this activity should be broken down into sub activities and a work plan in a separate workshop involving all stakeholders. RFLP should support NARA in formulation and implementation, and engage a qualified NGO/INGO or another implementing partner.</p>

Output 2: Safety at sea improved

Results	Activities	Comments
1. Provincial authorities assisted in enforcement of safety regulations	<p>1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes</p> <p>1.2 Assist authorities to adjust and issue comprehensive safety regulations</p> <p>1.3 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and FAs</p> <p>1.4 Include safety at sea in the training of inspectors and monitor enforcement</p> <p>1.5 Assist MFAR in mapping of underwater obstacles in the coastal waters off the two districts, but also in coastal fishing grounds of the East coast, where boats fish off season.</p> <p>1.6 Disseminate maps in coastal communities</p> <p>1.5 Facilitate vertical and horizontal data exchange</p>	<p>The assessment should be done for every province and record data for different fleet segments, gear types and fishing grounds, as well as for accidents which happen as a result of conflicts. National consultants should assist MFAR and DFAR staff on division level to carry out the assessment.</p> <p>Regulations need to be developed with communities and CBOs to allow for acceptance and transparency. Experiences and lessons learned from other countries of the region should be evaluated.</p> <p>RFLP should provide a national consultant to assist DFAR. Liaison with the ongoing FAO projects GCP/GLO/158/SWE and GCP/GLO/200/MUL should be insured. Monitoring and data management is needed to record impacts and improve acceptance of safety at sea measures and regulations, and to adjust the latter. The implementing partners should be the same than for 1.1.</p> <p>Compliance is presently often circumvented informally and the provisions of the Fisheries Law regarding role, status and powers are still little understood on province level. Training should be done by the implementing partners mentioned above and monitoring should be done by DFAR staff on division level.</p> <p>RFLP should employ the services of national consultants and qualified implementing partners, and collaborate with specialized MFAR departments/GoSL agencies to develop maps.</p> <p>Dissemination should be part of follow up and retraining efforts by DFAR staff on division level</p> <p>Data exchange, to central level and to other provinces would facilitate learning and a common understanding of needs and options.</p>
2. Awareness of fishers on safety issues, existing regulations and risk reduction, and acceptance of measures for improvement raised	<p>2.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations</p> <p>2.2 Conduct awareness campaigns in communes and FAs on existing regulations, major issues and risk reduction options</p> <p>2.3 Train communes and FAs in risk reduction strategies and enable them to sustain training impacts by regular follow up training</p> <p>2.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment</p>	<p>The assessment should be done for clusters of fishing communities, to capture area specific characteristics of present situations and options employing participatory approaches. National consultants should collaborate with DFAR staff on division level and representatives of communities and co-operative societies to carry out the assessment.</p> <p>The campaigns should be done for clusters of fishing communities, to reduce costs.</p> <p>National consultants should collaborate with DFAR staff on division level in this activity. Crew members of multi day boats need to be trained as well; they are living in the same community as small scale fishers and are equally if not more at risk.</p> <p>Source funding from other donors to provide equipment at accessible costs.</p>

3. Measures for improved quality of fishery products and market chains

Results	Activities	Comments
1. Needs and potentials of improving handling and storage of catches assessed	<p>1.1 Carry out an assessment of present practices on options for improvement in coastal and lagoon fisheries communities</p> <p>1.2 Carry out feasibility studies and trials, with communities and co-operative societies, on identified options</p> <p>1.3 Consolidate results, develop training modules and provide on the job training to CBO members, with focus on women</p> <p>1.4 Investigate market demand and potential for improved products</p> <p>1.5 Develop a simple and accessible market information system</p>	<p>The assessment should record information for different fleet segments and main target species/species groups. RFLP should provide a national consultant to assist in the assessment.</p> <p>This activity requires prolonged field work and careful monitoring. It should be guided by DFAR staff and RFLP; qualified partners should carry out the field activities. Training in costs/benefits and accounting should be included, with focus on women.</p> <p>The same implementing partners should be involved; training of trainers from the communities would increase sustainability.</p> <p>This activity needs to be organized as an ongoing effort and operationalized in a suitable and accessible data bank. RFLP should provide a national consultant for design and periodical follow up.</p> <p>RFLP, together with, MFAR/DFAR staff on division level, should explore possibilities and sustainability of this activity, propose options and assist in implementation, using the same consultant to assist the MFAR specialized departments.</p>
2. Physical and hygiene conditions at landing sites improved	<p>2.1 Identify potential and options for improvement in and with fishing communities and</p> <p>2.2 Raise awareness of fishers of the need to improve sanitary and hygiene of handling, storing and pre-processing of landings</p> <p>2.3 Monitor and disseminate results in other communities and co-operative societies</p>	<p>This activities needs to be coordinated and streamlined with the ongoing FAO project GCP/SRL/057/CAN. Improving conditions often hinge on availability of land, MFAR and RFLP should involve provincial and district authorities in these efforts. Land availability and tenure is a cross cutting issue, as is gender, both are relevant also for output 4.</p> <p>RFLP consultants and implementing partners, e.g. NGOs specialized in waste management and sanitation should assist DFAR staff on division level in this activity; the activities needs to be coordinated and streamlined with the ongoing FAO project GCP/SRL/057/CAN</p> <p>This activity would concentrate on success stories, lessons learned and best practices, also making use of the media.</p>
3. Inspectors trained in quality control and giving to advice to fishers	<p>3.1 Train inspectors in national and international quality standards including traceability</p>	<p>Inspections of sanitary standards and traceability are high on the agenda of MFAR but district inspectors have limited means and capacities. Because of the international standards required for export in the future, an international consultancy would be beneficial to transfer know how to DFARs.</p>

	<p>3.2 Train inspectors in responsible conduct of inspections</p> <p>3.3 Develop monitoring and reporting scheme for inspectors</p>	<p>Presently inspections are not always transparent and accountable and responsible conduct is required to increase acceptance by the fishers.</p> <p>Data and information from inspections will be needed to be recorded, managed and made available to central level control agencies. Both activities could be carried out by national consultants, facilitated by the international consultant and guided by RFLP.</p>
<p>4. Explore possibilities to improve traditional processing and potentials for new products</p>	<p>4.1 Carry out an assessment of present practices and options for improvement in selected communities and CBOs</p> <p>4.2 Carry out feasibility studies and trials, with and in communities, on identified options</p> <p>4.3 Consolidate results, develop training modules and provide on the job training to community members, with focus on women</p> <p>4.4 Investigate market demand and potential for improved products</p>	<p>The assessment should record information for different fleet segments and main target species/species groups. RFLP should provide a national consultant to assist in the assessment.</p> <p>This activity requires prolonged field work and careful monitoring. It should be guided by MFAR specialized departments and RFLP; qualified partners should carry out the field activities. Training in costs/benefits and accounting should be included.</p> <p>The same implementing partners should be involved; training of trainers (CBO members) would increase sustainability.</p> <p>This activity needs to be organized as an ongoing effort and operationalized in a suitable and accessible data bank. RFLP should provide a national consultant for design and periodical follow up.</p>
<p>5. Improve handling and storage on Board</p>	<p>5.1 Promote the use of customized (according to vessel and target species) insulated fish containers</p> <p>5.2 Investigate present ice making capacities and quality of product</p> <p>5.3 Assess ice use and identify gaps and shortcoming of ice production and identify solutions</p>	<p>Present holding practices result in crushed and damage catches and ice use is waste because of lack of insulation/exposure to sun.</p> <p>All activities could be carried out by national consultants, under the guidance of MFAR specialized departments.</p> <p>The assessment should include total capacity per province, quality, prices, seasonality of demand and accessibility to small scale fishers.</p> <p>The assessment should include practices and perception of ice use by fishers, problems, constraints and options to overcome them.</p> <p>This activity should build on previous work; RFLP should provide a national consultant input.</p>

4. Diversified income opportunities for fisher families

Results	Activities	Comments
1. Potentials for diversified income opportunities in fisheries communities and co-operative societies assessed	<p>1.1 Carry out PRAs to assess past and present experiences, lessons learned, needs and means and perception of community members</p> <p>1.2 Catalogue options for all fisheries communities and co-operative societies and carry out socio-economic and socio-cultural feasibility studies</p> <p>1.3 Disseminate study results to potential implementing/funding partners</p>	<p>The PRAs should follow up the initial survey and take past and present experiences of other assistance agencies into account. They should concentrate on improvement of traditional fish processing and areas outside fish capture and post harvest, and include a gender and SWOP analysis. Facilitation should be by RFLP, DFARs need to be involved, and there should be liaison with GCP/SRL/057/CAN.</p> <p>RFLP should provide national consultant inputs, studies should take external factors into account, e.g. market demand for improved products land, availability for agriculture and animal husbandry, the need for improved sanitary and health conditions for eco-tourism development.</p> <p>Given the logistic and funding limits of RFLP, collaboration with other organizations should be sought to increase impact, effectiveness and sustainability (with LoAs giving MFAR/RFLP a guiding and supervising role).</p>
2. Carry out trials on selected income diversification activities	<p>2.1 Select fisheries communities and co-operative societies with the best potential for selected income diversification activities</p> <p>2.2 Train community members in small scale business skills and simple accounting</p> <p>2.3 Carry out trials on community level</p> <p>2.4 Monitor and document results and disseminate to GoSL agencies and media</p>	<p>Selection should be based on existing information (involving DFARs and division level DFARs, and organizations with relevant prior experiences) and validated during PRAs.</p> <p>Training should make use/adapt existing materials and employ learning by doing approaches instead of frontal training. Liaison with existing efforts (e.g. by IUCN) should be established.</p> <p>Successful trials will be crucial to multiplication and mobilization of additional funds and assistance; selection should be done on the base of past experiences and factors like acceptability to and innovative capacities of participating households.</p> <p>Trials need to minimize risks for households should collaborate with specialized MFAR departments (e.g. the Aquaculture Department for small scale marine aquaculture), and subject matter specialized other organizations.</p> <p>Results have to be made visible, with focus on success stories. Documents and media coverage should be authored by MFAR and RFLP.</p>
3. Facilitate inter-agency cooperation	3.1 Facilitate inter-agency cooperation for cross cutting issues (e.g. gender, land tenure, area development planning)	For cross cutting issues other GoSL institutions need to be involved. RFLP should support MFAR/DFARs in setting up respective fora.

Results	Activities	Comments
	3.2 Facilitate inter-agency cooperation with specialized RGC agencies and qualified donors/s/qualified development partners	Mandated GoSL agencies need to be involved where responsibilities overlap with MFAR. RFLP national team should facilitate.

5. Facilitated access to microfinance services for fishers, processors and vendors

Results	Activities	Comments
1. Viability, needs and potential of microfinance in fisheries communities and co-operative societies assessed	<p>1.1 Study needs and potential viability of microfinance for productive purposes</p> <p>1.2 Disseminate results to microfinance institutions</p>	<p>Studies need to consider technical viability of options to use established credit mechanisms and microfinance productively and sustainably, taking income flows and repayment capacities of potential lenders into account. RFLP should employ a qualified national consultant for this activity. The comparative advantages or disadvantages of established informal credit need to be factored in.</p> <p>It is not anticipated that microfinance institutions change established lending policies but improved knowledge about potentially performing loans may facilitate lending for some investments.</p>
2. Community based thrift and saving groups supported	<p>2.1 Assess past experiences and lessons learned with CBO level saving groups</p> <p>2.2 Support collective saving and lending practices with technical assistance and training in small scale entrepreneurship and skills like simple accounting, with focus on women</p> <p>2.3 Monitor training impacts and sustainability and adjust training</p> <p>2.4 Source funds for pilot saving groups and facilitate and monitor</p>	<p>The assessment should include experiences in other primary production sectors and include socio-cultural determinants. A qualified consultant (with knowledge of social structures and socio-cultural dimensions of rural organization) should be employed.</p> <p>RFLP should employ a specialised national consultant and seek collaboration with qualified development partners. Experiences of other organizations, e.g. IUCN should be taken into account and build on. Focus on women is recommended because of their superior (as compared to traditional fishermen) innovative capacity. Training should be on the job rather than by frontal instruction; self evaluation capacities should be promoted. Training materials should consider existing efforts and experiences from other organizations, and should be streamlined with respective training efforts under output 3 and 4.</p> <p>Results should be disseminated to implementing partners and microfinance institutions.</p> <p>In spite of positive track records, CBO based saving groups often lack funds for revolving schemes/on lending. RFLP should lobby other assistance agencies for funds and seed money.</p>

5.7 ASSESSMENT AND RESTRUCTURING OF INDICATORS

Annex 2 of the ProDoc shows a generic logical framework including objectively verifiable indicators, methods of verification and assumptions on objective and output level¹⁹. Indicators were formulated using quantifiable parameters and qualitative measurements as perception scorecards. However, the conceptual framework proposed is highly aggregated. It will be useful for monitoring on output level and for midterm and final evaluations. To monitor project progress, indicators are proposed for the restructured outputs and results in the following. Where realistic, time lines are proposed; where this was not possible timelines should be decided during the national inception workshop.

¹⁹ The matrix is attached in the Annex

Output 1	Indicators	Methods of Verification
Result 1	The regulatory framework is adjusted and gazetted (end year one)	GoSL, MFAR records
	80% of the communities and co-operative societies accept and support regulations (end year two)	Perception scorecards/ranking
	Fisheries committees allow for full participation of communities and co-operative societies	Perception scorecards/ranking
Result 2	Base line data processed and operationalized (by month 4 after inception)	RFLP planning documents
	Selection of communities and co-operative societies accepted and supported by 80% of the members (end year one)	Perception scorecards
Result 3	Selected communities and co-operative societies have representative, transparent and accountable leadership (by end year two)	Perception score cards
	Communication of communities and co-operative societies with MFAR, DFARs and local government is institutionalized in fisheries committees	Committee records, perception scorecards
	Fisheries committees allow for full participation of communities and co-operative societies	Committee records, perception scorecards
Result 4	Training delivered (by month 6) and retraining program is in place	RFLP M&E
	At least two officials/DFAR mandated for M&E and data management (by month 6)	DFAR records
	At least two members/community and co-operative society receive incentives for M&E (by month 6)	RFLP M&E
	Catch and effort data is processed and available for resource management (by end of first year)	DFAR records, RFLP M&E
Result 5	NPOA on IUU fishing drafted (end 2010), NPOA on managing fishing capacity drafted (mid-2011)	MFAR records, media
	Transparent and accountable port and vessel inspections are carried out/documented (end of year 2)	MFAR records
	Results of pilot observer programs available, logbooks restructured and used (by end year 2)	MFAR records
	Surveillance and control protocol between DFAR and executive agencies in place (by end year 1)	MFAR records and RFLP M&E
	MCS data bank in operation (by end year 1)	MFAR records and RFLP M&E
Result 5	Encroachment/infringement of protected areas insignificant for resource/ecosystem protection (end of project)	MFAR records, RFLP M&E, media, midterm review, final evaluation
	Restoration and rehabilitation work plan drafted (by end of first year)	RFLP M&E, DFAR records
	Pilot operations completed (by year three)	RFLP M&E, DFAR records
	Community members/members of co-operative societies share objectives of habitat protection (end of project)	Perception scorecards

Output 2	Indicators	Methods of Verification
Result 1 and 2	Compliance with safety at sea regulations achieved for 80% of small scale fishers (year 3)	DFAR inspection records, RFLP M&E
	Accidents of community members/members of co-operative societies decreased by 80%	MFAR/DFAR records, RFLP M&E, media
	Mapping of underwater obstacles in coastal waters completed (by end year two) and disseminated	RFLP M&E, media
	Costs of safety equipment considered justified by 80% of fishers (by year 3)	RFLP M&E, perception scorecards

Output 3	Indicators	Methods of Verification
Result 1	Training results are considered successful and sustainable by 80% of the beneficiaries (end of project)	Perception scorecards
	Trials and studies are documented and disseminated	RFLP M&E
	Market information considered beneficial by 80% of fishers	Perception scorecards
Result 2	Improved physical and hygiene conditions at landing sites considered beneficial for product quality by 80% of community members/members of co-operative societies	RFLP M&E, perception scorecards
Result 3	Inspections are considered transparent and accountable by fishers	Perception scorecards

Output 4	Indicators	Methods of Verification
Result 1	Other organization provide assistance to diversified incomes	RFLP M&E
Result 2	Training results are considered successful and sustainable by 80% of the beneficiaries (end of project)	Perception scorecards
	Trials and studies are documented and disseminated	RFLP M&E
	GoSL agencies and media are aware of potentials and problems to diversify incomes	RFLP M&E, media,
Result 3	Interagency cooperation to tackle cross cutting issues in place	MFAR records, RFLP M&E

Output 5	Indicators	Methods of Verification
Result 1	Lending institutions are aware of needs for and potentials of CBO thrift and saving schemes (by end year 1)	RFLP M&E
Result 2	Training results are considered successful and sustainable by 80% of the beneficiaries (end of project)	Perception scorecards
	Training impacts improve economic performance of income generation in CFs by 50%	RFLP M&E, media
	Lending institutions increase lending to CBO thrift and saving schemes by 50% (end of project)	Bank records, RFLP M&E

It is recommended that, during inception, a work plan is elaborated for all the activities endorsed by the national inception workshop following the matrix below. This will provide transparency for RFLP management and staff regarding progress achieved at any given time, and motivation to staff and implanting partners to deliver.

Result	Time frame	Mile-stones	Implementing partner	RFLP staff responsible	Budget delivery
Activity					

5.8 SUMMARY MATRIX OF OUTPUTS, RESULTS, ACTIVITIES, AND POTENTIAL IMPLEMENTING PARTNERS

The following matrix shows the identified potential implementing partners for achievement of proposed outputs, results and the activities.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level

Results	Activities	Comments
1. Legal, regulatory and institutional provisions for co-management established on local, district and central level	<p>1.1 Assess existing legal and regulatory provisions and identify shortcomings</p> <p>1.2 Recommend amendments to GoSL through DFARs/MFAR</p> <p>1.3 Lobby MFAR to provide an enabling legal and regulatory framework</p> <p>1.3 Assess existing institutional framework on local (community and division), district and central level</p> <p>1.4. Develop, in participatory fashion, an institutional framework for co-management</p> <p>1.5 Implement framework in the selected project areas together with CBOs and local/district authorities</p>	<p>National legal consultant should assist the RFLP team in activities 1.1 and 1.2.</p> <p>RFLP should seek alliances with other projects, initiatives and civil society organizations which support co-management of natural resources. A national consultant with expertise in institutional analysis should assist the RFLP M&E staff to carry out the assessment. SWOP methodology should be employed.</p> <p>MFAR, DFAR and DFAR staff on division level, CBO representatives, RFLP staff and consultants. Same implementing partners</p> <p>Same implementing partners</p> <p>Same implementing partners</p>
2. Target areas, communities and CBOs identified and selected	<p>2.1 Carry out a baseline survey of coastal and lagoon fishing communities</p> <p>2.2 Select areas, communities and CBOs</p>	<p>RFLP M&E, DFAR staff, resource persons from fishing communities.</p> <p>MFAR/DFAR, representatives of fisheries CBOs and RFLP</p>
3. CBOs empowered for co-management	<p>3.1 Disseminate information regarding existing legal and regulatory frameworks and amendments enabling co-management</p> <p>3.2 Inform coastal communities/communes about option and potential of co-management</p> <p>3.4 Train co-operative societies and other fisheries CBOs in co-management and monitoring of catch and effort</p> <p>3.5 Strengthen existing fishery committees and other co-management institutions</p>	<p>DFAR staff, RFLP, national consultant and implementing partners</p> <p>Same implementing partners Training</p> <p>RFLP with a national specialist consultant, DFAR staff</p> <p>RFLP with a national specialist consultant, DFAR staff, COB representatives</p>

	3.6 Improve and communication capabilities of fisheries societies and other management institutions	RFLP with a national specialist consultant, DFAR staff, COB representatives
4. M&E capacities on district, division and community level improved	4.1 Facilitate training of district and division staff in M&E methodologies and data management	NARA staff, RFLP staff and national consultant
	4.2 Facilitate training of DFAR division level staff and CBOs in M&E of catches and effort, conflicts and IUU fishing	NARA staff, RFLP staff and national consultant
	4.3 Provide hard and soft ware	RFLP
5. MCS capacities of DFAR to manage coastal and lagoon fisheries improved	5.1 Assist MFAR to draft NPOAs on combating IUU fishing and managing fishing capacity	RFLP national/ international consultant
	5.2 Train inspectors in port and at sea inspections (including safety at sea and quality control)	MFAR specialized departments, RFLP national/ international consultant
	5.3 Facilitate transparent and accountable port and vessel inspections	MFAR, DFAR staff, RFLP national/ international consultant
	5.4 Explore the feasibility of (scientific) observer programs	MFAR, DFAR staff, RFLP national/ international consultant
	5.5 Support vertical data flows and data management by training and provision of hard and soft ware	RFLP national consultants
6. Enable communities and DFAR and communities to rehabilitate stocks and restore habitats	6.1 Survey lagoon and coastal areas for potential habitat restoration and stock rehabilitation	NARA, qualified Universities or NGOs RFLP national/ international consultants
	6.2 Explore the feasibility of restoring habitats and fish stocks	Same implementing partners
	6.3 Support Fisheries Committees and DFARs to formulate restoration and management plans and implement them	Same implementing partners

Output 2: Safety at sea improved

Results	Activities	Comments
1. Provincial authorities assisted in enforcement of safety regulations	<p>1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes</p> <p>1.2 Assist authorities to adjust and issue comprehensive safety regulations</p> <p>1.3 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and FAs</p> <p>1.4 Include safety at sea in the training of inspectors and monitor enforcement</p> <p>1.5 Assist MFAR in mapping of underwater obstacles in the coastal waters off the two districts, but also in coastal fishing grounds of the East coast, where boats fish off season.</p> <p>1.6 Disseminate maps in coastal communities</p> <p>1.5 Facilitate vertical and horizontal data exchange</p>	<p>RFLP national consultants, MFAR and DFAR staff on division level, CBO resource persons</p> <p>RFLP national consultant, MFAR</p> <p>Same implementing partners than for 1.1.</p> <p>RFLP national/international consultants,</p> <p>MFAR specialized departments</p> <p>RFLP national consultants and qualified implementing partners, MFAR departments/other GoSL agencies DFAR staff on division level</p> <p>RFLP national consultants and qualified implementing partners, MFAR departments</p>
2. Awareness of fishers on safety issues, existing regulations and risk reduction, and acceptance of measures for improvement raised	<p>1.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations</p> <p>1.2 Conduct awareness campaigns in communes and FAs on existing regulations, major issues and risk reduction options</p> <p>1.3 Train communes and FAs in risk reduction strategies and enable them to sustain training impacts by regular follow up training</p> <p>1.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment</p>	<p>RFLP national consultants, DFAR staff on division level, representatives of communities and co-operative societies</p> <p>RFLP national consultants, DFAR staff on division level, representatives of communities and co-operative societies</p> <p>Same implementing partners</p> <p>RFLP team</p>

3. Measures for improved quality of fishery products and market chains

Results	Activities	Comments
1. Needs and potentials of improving handling and storage of catches assessed	<p>1.1 Carry out an assessment of present practices on options for improvement in coastal and lagoon fisheries communities</p> <p>1.2 Carry out feasibility studies and trials, with communities and co-operative societies, on identified options</p> <p>1.3 Consolidate results, develop training modules and provide on the job training to CBO members, with focus on women</p> <p>1.4 Investigate market demand and potential for improved products</p> <p>1.5 Develop a simple and accessible market information system</p>	<p>RFLP national consultant, DFAR, qualified implementing partners</p> <p>DFAR staff and RFLP national consultant, qualified partners</p> <p>Same implementing partners should be involved, trainers from the communities</p> <p>RFLP national consultant</p> <p>RFLP national consultant, MFAR specialized departments, DFAR staff</p>
2. Physical and hygiene conditions at landing sites improved	<p>2.1 Identify potential and options for improvement in and with fishing communities</p> <p>2.2 Raise awareness of fishers of the need to improve sanitary and hygiene of handling, storing and pre-processing of landings</p> <p>2.3 Monitor and disseminate results in other communities and co-operative societies</p>	<p>MFAR, RFLP team/national consultant, provincial and district authorities in these efforts</p> <p>RFLP consultants and implementing partners, e.g. NGOs specialized in waste management and sanitation, DFAR staff on division level</p> <p>RFLP team, MFAR, media</p>
3. Inspectors trained in quality control and giving to advice to fishers	<p>3.1 Train inspectors in national and international quality standards including traceability</p> <p>3.2 Train inspectors in responsible conduct of inspections</p> <p>3.3 Develop monitoring and reporting scheme for inspectors</p>	<p>MFAR specialized departments, RFLP international consultant</p> <p>RFLP national/ international consultant, MFAR</p> <p>MFAR, RFLP M&E staff, national/ international consultant</p>
4. Explore possibilities to improve traditional processing and potentials for new products	<p>4.1 Carry out an assessment of present practices and options for improvement in selected communities and CBOs</p>	<p>MFAR specialized departments, RFLP national consultant</p>

	<p>4.2 Carry out feasibility studies and trials, with and in communities, on identified options</p> <p>4.3 Consolidate results, develop training modules and provide on the job training to community members, with focus on women</p> <p>4.4 Investigate market demand and potential for improved products</p>	<p>MFAR specialized departments, RFLP staff/consultant, qualified partners</p> <p>Same implementing partners</p> <p>RFLP national consultant</p>
5. Improve handling and storage on Board	<p>5.1 Promote the use of customized (according to vessel and target species) insulated fish containers</p> <p>5.2 Investigate present ice making capacities and quality of product</p> <p>5.3 Assess ice use and identify gaps and shortcoming of ice production and identify solutions</p>	<p>MFAR specialized departments, RFLP national consultant</p> <p>RFLP national consultant, DFAR staff</p> <p>RFLP national consultant, DFAR staff</p>

4. Diversified income opportunities for fisher families

Results	Activities	Comments
1. Potentials for diversified income opportunities in fisheries communities and co-operative societies assessed	<p>1.1 Carry out PRAs to assess past and present experiences, lessons learned, needs and means and perception of community members</p> <p>1.2 Catalogue options for all fisheries communities and co-operative societies and carry out socio-economic and socio-cultural feasibility studies</p> <p>1.3 Disseminate study results to potential implementing/funding partners</p>	<p>RFLP staff/national consultant, DFAR staff, qualified implementing partner</p> <p>RFLP national consultant, qualified implementing partner/organizations</p> <p>MFAR, RFLP team</p>
2. Carry out trials on selected income diversification activities	2.1 Select fisheries communities and co-operative societies with the best potential for selected income diversification activities	DFARs, division level DFARs, RFLP team, other organizations with relevant prior experiences

	<p>2.2 Train community members in small scale business skills and simple accounting</p> <p>2.3 Carry out trials on community level</p> <p>2.4 Monitor and document results and disseminate to GoSL agencies and media</p>	<p>RFLP national consultant, other implementing partners, (e.g. by IUCN) should be established.</p> <p>Specialized MFAR departments (e.g. the Aquaculture Department for small scale marine aquaculture), DFARs and RFLP national consultant</p> <p>MFAR, RFLP team</p>
<p>3. Facilitate inter-agency cooperation</p>	<p>3.1 Facilitate inter-agency cooperation for cross cutting issues (e.g. gender, land tenure, area development planning)</p> <p>3.2 Facilitate inter-agency cooperation with specialized RGC agencies and qualified donors/s/qualified development partners</p>	<p>Other GoSL institutions, MFAR/DFARs RFLP team</p> <p>Mandated GoSL agencies, MFAR, RFLP team</p>

5. Facilitated access to microfinance services for fishers, processors and vendors

Results	Activities	Comments
1. Viability, needs and potential of microfinance in fisheries communities and co-operative societies assessed	1.1 Study needs and potential viability of microfinance for productive purposes	RFLP national consultant
	1.2 Disseminate results to microfinance institutions	RFLP team
2. Community based thrift and saving groups supported	2.1 Assess past experiences and lessons learned with CBO level saving groups	RFLP consultant, qualified development partners
	2.2 Support collective saving and lending practices with technical assistance and training in small scale entrepreneurship and skills like simple accounting, with focus on wome	RFLP consultant, qualified development partners
	2.3 Monitor training impacts and sustainability and adjust training	RFLP M&E staff, qualified development partners
	2.4 Source funds for pilot saving groups and facilitate and monitor	RFLP team, MFAR

PART 3: CAMBODIA

5.9 PROVISIONS OF THE PRODOC

According to respective Annex of the ProDoc, in Sri Cambodia the Programme will work in all the coastal provinces, i.e. in the fisheries cantonments of Koh Kong, Kampong Som, Kampot and Kep. The identification mission proposed the following strategic approach for the RFLP intervention in Cambodia. Accordingly, the Programme will:

- “The coastal fisheries are generally of small-scale (artisanal) nature
- They are often in conflict with encroaching larger-scale fisheries (in particular smaller trawlers which are banned in waters of less than 20 m depth, and foreign fishing craft)
- The coastal people are highly dependent on the fisheries
- The fishing fleet consists mainly of traditional fishing boats exhibiting problems in quality of timber, fastenings and design
- Storms, bad weather, thefts and pirates are significant risks for the fishers
- Handling and processing of fish and fishery products often does not follow sanitary practices; there are significant postharvest losses and there is sometimes use of additives unsafe for human consumption
- There is considerable dependency on middlemen in local fish trade and perceived unfairness of trading practises and prices”

Consultations in the cantonments, with representatives of communities and cantonment fishery staff confirmed these finding to a large extend (except for piracy and theft, which were not conceived as a major problem at present).

The ProDoc proposed the following five outputs, respective activities and a work plan:

1. Co-management mechanisms

Outputs	Activities	Year			
		Y 1	Y 2	Y 3	Y 4
1.1: Trainings and workshops in support of co-management improve institutional capacity to monitor and manage	Assess training needs of Community Fisheries and FiA	■			
	Design training content and materials	■			
	Conduct training and workshops		■		■
	Assess training impact		■		■
1.2: Co-management plans reviewed, updated, approved and implemented by co-management institutions	Review and update co-management plans	■			
	Facilitate approval of plans		■		
	Support implementation of plans		■	■	■
	Support demarcation and legalization of <i>Community Fisheries (CFi)</i>	■			
1.3: Reduced conflicts and illegal fishing	Design participatory enforcement mechanisms		■		
	Promote compliance with regulations through awareness raising		■	■	■
	Provide patrol equipment		■		
	Support patrol measures		■	■	■
	Enable CFi to document / analyze enforcement; conflict resolution process and impact		■	■	
1.4: Improved habitat management practices (refugia, MPAs, mangroves / flooded forests, sea grass beds, crab banks)	Train and assist CFi in identification and implementation of habitat protection measures	■			
	Provide equipment for resource and habitat conservation		■		
1.5: Systems and procedures for participatory monitoring of management measures indicate stable or improving aquatic resource status	Design participatory monitoring tools and procedures		■		
	Enable CFi to document and analyze impact of resource and habitat protection		■	■	
1.6: Registration and licensing system for fishing crafts improved	Lobby with Department of Transport for the implementation of fishing boat registration		■		
	Assist FiA in implementing licensing system for registered fishing boats			■	■

2. Measures to improve safety at sea and reduce vulnerability

Outputs	Activities	Year			
		Y 1	Y 2	Y 3	Y 4
2.1: Assessment of accidents and their causes as information base	Design information gathering system and data base	■			
	Implement data gathering, processing and analysis		■		
2.2: Awareness of dangers and hazards among stakeholders	Design awareness raising campaigns		■		
	Conduct regular awareness raising		■		■
	Assess level of awareness of targeted groups		■		■
2.3: Enhanced disaster preparedness in coastal communities	Identify disaster preparedness measures		■		
	Design and provide training in disaster preparedness		■		■
	Provide equipment to improve disaster preparedness		■	■	■
2.4: Training of fishers and boat builders in fishing boat safety	Identify and assess training needs	■			
	Design training course and materials		■		
	Conduct training courses for fishers and boat builders		■		■
	Assess training impact		■		■
2.5: Communication system in place to enhance safety at sea	Identify communication means and opportunities		■		
	Provide access to communication tools		■		
2.6: Early warning systems (e.g. weather reporting) improved	Assist local radio/TV stations to improve weather reporting		■		■
	Identify and promote opportunity to broadcast other fisheries topics		■		■
	Assess impact of improved reporting			■	■

3. Measures to improve safety at sea and reduce vulnerability

Outputs	Activities	Year						
		Y 1	Y 2	Y 3	Y 4			
3.1: Public awareness of food safety issues	Identify common food (fishery product) safety issues	■	■					
	Conduct tests on selected products		■	■	■			
	Design and implement awareness raising campaign			■	■	■	■	■
	Assess level of awareness			■				■
3.2: Training of fishers, processors and traders in fish handling processing and business management	Assess training needs	■	■					
	Identify training contents and design training		■					
	Provide training on identified topics			■	■			■
	Assess impact of training			■				■
3.3: Pilot operations for value added products and marketing	Identify products and feasibility	■	■					
	Provide basic processing and marketing equipment		■	■				
	Assist implementation of pilot operations			■	■	■	■	
	Assess market success of supported value added product			■	■	■	■	
3.4: Improved market information system enhances transparency and equitability of fish trade	Design market information system			■				
	Support implementation of market information system			■	■			
	Provide basic marketing equipment			■				
	Assess supplier / trader / consumer satisfaction with supported system				■	■		

4. Diversified income opportunities for fisher families

Outputs	Activities	Year							
		Y 1	Y 2	Y 3	Y 4				
4.1: Livelihood and gender needs and priority analyses	Carry out livelihood and gender needs and priority analyses	■	■						
	Identify and design livelihood support initiatives on the basis of analyses			■	■				
4.2: Financial and technical feasibility analyses of livelihood options	Carry out financial and technical feasibility analyses of livelihood options			■	■				
4.3: Marketing strategies for products and services	Develop marketing strategies for products and services			■	■				
	Assist in the promotion and implementation of marketing strategies			■	■	■	■		
	Monitor impact of promoted products and services			■	■	■	■		
4.4: Associations formed/strengthened for producers and service providers	Identify opportunities for group business (trading etc.)		■						
	Support organisation building for trading and service provision		■	■					
	Strengthen organisations			■	■	■	■		
4.5: Training for exponents of diversified livelihoods	Design training courses			■	■				
	Support vocational and other formal training			■	■	■			
	Assess training impact							■	■
4.6: Pilot operations for products and services	Identify products / services and input needs	■	■						
	Provide basic equipment or inputs for pilot operations		■	■					
	Support implementation of pilot operations		■	■	■	■	■		
	Assess impact of pilot operations			■					■
4.7: Pilot operations for small-scale aquaculture	Assess small-scale aquaculture opportunities	■	■						
	Provide basic equipment or inputs for pilot operations		■	■					
	Support implementation of pilot operations		■	■	■	■	■		
	Assess impact of pilot operations			■					■

5. Facilitated access to microfinance services for fishers, processors and vendors

Outputs	Activities	Year			
		Y1	Y2	Y3	Y4
5.1: Policies of lending institutions updated	Document and analyze existing lending policies and practices				
	Update lending policies				
	Lobby with MFIs to adopt updated lending policies				
5.2: Microfinance institutions educated on fishery sector needs and issues	Identify and design seminar contents				
	Conduct seminars with MFIs on fisheries topics				
	Assess impact of seminars				
5.3: Community members trained in financial planning and management	Identify training contents and design courses				
	Conduct training for community members				
	Promote group saving				
	Assess training impact				
	Assess lending/credit practices				
5.4: Microfinance briefing materials produced and disseminated	Design and produce briefing materials				
	Disseminate briefing materials				
	Assess consumer satisfaction with access to microfinance				

The ProDoc did not provide a stakeholder or institutional analysis but identified the following implementation arrangements: The implementing agency will be the Fisheries Administration (FiA) of the Ministry of Agriculture, Forestry and Fisheries (MAFF). Directly responsible for project implementation will be the Department of Community Fishery Development (DCFD) in Phnom Penh, with its director as National Project Director of RFLP's component in Cambodia. Oversight and guidance will be provided by a Project Coordination Committee; liaison and coordination with other projects will be through the Technical Working Group Fisheries, established by FiA and fisheries development partners, in line with FiA's Strategic Planning Framework for Fisheries 2010 to 2019 and yearly plans.

In the cantonments, FiAs cantonment staff will collaborate in the delivery of RFLP activities and liase, together with the FAO RFLP team, with local government. Field activities will be guided by a Project Coordination Office in Sihanoukville (Kampong Som), by a National Project Coordinator and a Communication and Reporting Officer.

On local level, the project will deliver its in close collaboration with the provincial cantonment offices of FiA, which will also be a central implementing partner and which will facilitate

coordination with the activities of other donors and s working in fisheries or fisheries related areas.

5.10 EX ANTE EVALUATION OF OUTPUTS

The assessment of the proposed outputs in the general context and present situation of the coastal fisheries of the four provinces resulted in the following findings and conclusions.

5.10.1 FISHERIES CO-MANAGEMENT

Fisheries co-management in Cambodia is provided for in the Sub Decree on Community Fisheries (CFi) of 2005 and the Fisheries Law of 2006. CFi is being considered the best option for small scale fisheries by the Royal Government of Cambodia (RGC), in inland as well as in coastal fishing grounds; it has received financial and technical support of and both government and the donor community. CFi has advanced considerably in inland fisheries; in marine fisheries results are patchy, with some CFis having achieved significant progress while others are lagging behind.

Management of marine fisheries is, overall, and in spite of a legal and regulatory framework conducive to sustainable resource utilization, still marginal. Main reasons stated by resource persons and respondent were:

- Weak enforcement by province and cantonment authorities because of limited logistics (staff and finance, e.g. petrol for surveillance vessels, binoculars etc.), technical capacities and political support;
- Weak monitoring and surveillance capacities on cantonment and CFi levels;
- There is no effective, regular and institutionalized collaboration between authorities and CFis;
- Limited empowerment of many CFis, lack of sufficient finance and low levels of awareness of rights and obligations of CFis to manage their fishing areas;
- Frequent infringements of vessels employing active gear, in particular trawlers, in inshore and CFi fishing grounds have caused numerous conflicts among different fleet segments; according to the existing legal and regulatory framework a large part of the present effort can be classified as IUU fishing;
- Regulations and zoning, especially for some illegal gear as push nets and trawls, are not shared by fishers and, in some cases (as for stationary tidal bag nets in estuaries) not

clear; fishers do not know the demarcation of zones and have no means of identify zoned fishing grounds.

- The important role many of the IUU fishing methods play for income and employment in coastal communities and the social, political and economic costs effective enforcement would incur;
- Registration is not comprehensive, there are parallel competencies regarding registration and licensing (FiA provides licenses specifying vessel dimension, propulsion and gear, the Ministry of Public Works and Transport provides registration plates but does not differentiate between fishing and transport vessels, licenses for Thai vessels fishing in the overlapping maritime areas are given by provincial political authorities).
- Data on catch and effort are neither comprehensive nor reliable, and not operationalized for management. Funds for a Marine Research Institute (attached to the Center for Marine Aquaculture) have been pledged by the Government of Japan but construction has not yet started and existing staff has no work station;
- CFI area management plans (obligatory for gaining CFi status, together with by laws and other requirements) are more often than not integrated into local government (Commune Council) development plans and sometimes opposed by local political-economical interests.

According to respondents in the communities visited there is some concern about resource abundance and diversity, but these concerns were not ranked first. With some exceptions, e.g. the decline of short bodied mackerel in Koh Kong (*Rastrelliger brachysome*), stocks are not conceived as depleted yet. Still, several CFIs have established protected areas in their CFi areas, and some have started crab banks. However, Marine Protected Areas (MPAs) and mangrove conservation have not been accepted by non CFi fishers, encroachment of mangrove areas is still common (by both fishers and landless people, but also by local entrepreneurs) and trawlers fishing (illegally) in inshore waters and estuaries have destroyed demarcation posts in several CFi's. There are only very few artificial reefs or other obstacles which would obstruct trawling to date ,and CFIs have no means to combat this type of IUU fishing.

According to the information gathered in the field, main areas of concern are therefore the weakness of both cantonment management and enforcement capacities and the corresponding weakness of CFIs, which perpetuate the status quo in fisheries management and the notorious IUU fishing, and the largely unchecked and continuing degradation of critical habitats as coral reefs, sea grass beds and mangrove areas. To this, urban and industrial pollution, especially in the estuaries used for berthing commercial vessels and tankers, massive sand mining and tourism and industry development contribute on an increasing scale.

5.10.2 SAFETY AT SEA, VULNERABILITY

To improve safety at sea has not been on the agenda of RGC authorities until now. Although both cantonment authorities and communities consider it one of the priority problem areas, there appears little public awareness about the vulnerability of fishers at sea. Main areas of concern are the following:

- Vessel construction, both of small and larger boats, is deficient with respect to the material used (good wood has become scarce and expensive), boat building skills vary greatly, fastening are of low quality etc. There is no boat building standard and inspection of new vessels is flawed; necessary repairs are often delayed because of costs and fishing time lost;
- Engines are unreliable (often converted car or truck engines are used), propellers, especially of the smaller crafts, are of poor quality (aluminum), engine failure results in capsizing when the sea is rough;
- Sea rescue other than from other fishing vessels is not available, there is no established protocol between FiA, Marine Police and Port Authorities with respect to rescue at sea and equipment is missing, and rescue vessels/technical capacities to undertake rescue at sea are lacking;
- There is rarely safety equipment as life vests or inflatable rafts on board; reasons are costs but also superstition (to safeguard against accidents will provoke them). Fishers resort to prayers and offerings before venturing out to sea instead,
- Communication is by cell phones, FM and SW radios but fishers have to rely on Vietnamese weather forecasts in the South, which is considered reliable but cannot be understood by many, and on Thai weather forecasts in the North, which faces the same language barriers and is considered unreliable;

Some fishing communities are also vulnerable to usurpation of their dwellings and landing sites by development of tourism resorts, expansion of agriculture and port/industrial development (e.g. the Tomnop Rolork closed sea port in Sihanoukville). As in many parts of the country, small holder land tenure is uncertain. The coastal areas adjacent to the tide line are state property and no land titles are issued.

This issue is cross-cutting and affects also outputs 3 and 4 (see below).

5.10.3 IMPROVED QUALITY OF FISHERY PRODUCTS AND MARKET CHAIN

As remarked in the annex of the ProDoc, value chains and marketing structures of small scale fisheries products, whether fresh or processed, are dominated by middlemen and oligopolies of middlemen. Especially in freshwater fisheries and some of the brackish water fisheries they finance fishing operations but have the exclusive rights to buy catches at predetermined fixed

prices, with large profit margins. While middlemen bear considerable risks this long established and entrenched practice depresses income levels of fishing households on the one hand but, to the fishers, provides some guaranteed market access on the other. For fisheries which are not caught up in these systems, fishers often still have to borrow to finance operations and lack market information and bargaining power to obtain fair prices.

Other issues problematic for the post harvest sector have been identified during the consultations as follows:

- There is no quality/hygiene control by the cantonment or provincial authorities; inspectors lack capacity as well as logistics to inspect landings, especially at scattered and isolated landing sites.
- Fish, crustaceans and processed products are often treated with harmful additives (borax, garment dye for dried shrimp etc.), which was, and in some instances still is encouraged by middlemen and of which consumers are largely unaware. However, these practices are becoming less frequent.
- While most boats have insulated containers, quality of ice is a concern, although the Ministry of Commerce has a mandate to exercise control. Poor quality of ice is a problem mainly for the boats fishing over several days, as the gillnetters, while for day boats it is less relevant.

The most critical area of the post harvest sector are the often catastrophic hygiene and sanitary condition at the landing sites, in urban areas in particular but at smaller sites along the coast as well. The waters of the sheltered sites typically used for berthing are extremely polluted by engine oil, garbage and human waste; clean water to clean fish is not available in sufficient quantities at landing sites because the wells which provide most drinking water are at some distance from where the fish is landed. Also, fishers appear to be entirely unaware of the hazards, not only to quality and sanitary conditions of their produce, but only to their own health and well being.

Again this issue cuts across also to output 4 (see below).

5.10.4 DIVERSIFIED INCOME OPPORTUNITIES FOR FISHER FAMILIES

Most of the communities and CFIs visited had a diversified production structure, mainly combining fishing with agriculture (rain fed paddy, other crops and vegetables) and small scale animal husbandry (ducks, chicken pigs and cattle). An ad hoc wealth ranking put households which combine fishing with agriculture first, households which only fish second and households which only practice agriculture last. Thus, the evident option to diversify income opportunities would be to promote farming and livestock raising. This, however, is dependent on land availability and security of tenure, as well as on technical skills. As pointed out for output 2, land availability and tenure constrains this option in many areas, and several CFIs reported attempted

and successful encroachments of local “neak mean”(rich and powerful people) on CFI land and mangrove areas, mainly to enlarge their agricultural land or to develop tourist sites.

Other options identified by CFI members include:

- Extensive aquaculture, e.g. culture of bivalves (e.g. cockle ranching) and sea weed (depending on market demand and prices) are an already practiced and, at least partly, successful option. Cage culture, mainly of sea bass (*Lateolabrax niloticus*) has been promoted also, but success has been reported mostly for larger scale operations run by local entrepreneurs. Marine aquaculture will be supported by the Government of Japan, which will build a Marine Aquaculture Center in Sihanoukville, and according to FiA officials, expertise in marine aquaculture is readily available in the respective FiA Department.
- Sea salt production, which has been and is still being practiced by some communities, although some lost their salt pens to development. Artisanal salt production is technically accessible to CFIs and there is a considerable market demand, which could include, if marketed properly, a potential for export.
- Coconut planting, which requires little land, with a steady demand for the produce and with possibilities to increase value added, e.g. by producing cold pressed coconut oil.
- Eco-tourism, with many CFIs being located in attractive sites along the coast. In some CFIs, rudimentary facilities have been developed, e.g. in the mangrove areas in Koh Kong. The main obstacle, apart from the distance of many sites to tourism centers like Sihanoukville, are the poor hygiene and sanitary conditions in many CFIs, including lack of toilets and proper waste disposal.
- Production of niche products as mushrooms.

All these options, and others which may emerge, will need an in depth assessment of economic viability including market demand and structure, acceptability and sustainability (some options promoted by technical assistance projects were discontinued when external support stopped). A most useful contribution to diversify incomes, however, would be training of CFI members, in particular women, in cottage level entrepreneurship and accounting.

5.10.5 ACCESS TO MICROFINANCE SERVICES FOR FISHERS, PROCESSORS AND VENDORS

In Cambodia, there are several functioning microfinance services, including ACLEDA Bank and a microfinance scheme initiated by a now completed EC program. Interest rates are high and requirements for disbursement include collateral which most fishers cannot provide. Given the reluctance of existing lending and microfinance schemes to lend to marginal groups as small scale fishers, to lobby existing lending institutions to extend credit to fishers under preferential conditions may not be a realistic option at present.

Saving groups promoted by external assistance have reportedly failed, with some members not honoring their commitments, moving to other provinces. With the nucleus and extended family being the only social entity with any degree of cohesiveness in Cambodian social organization, the chance of instilling collective responsibility in groups and communities appears remote at present.

However, given the disadvantageous credit conditions offered by middlemen and money lenders, opportunities which may arise with changing socioeconomic conditions in the CFIs should be monitored, and the option of community based credit schemes should remain on the agenda. With socio-cultural change and appropriate support, saving groups may become a, and possibly, the most feasible option to extend credit to small scale fishers in the future. Should such opportunities arise, and as RFLP has no budget line which would allow provision of (e.g. revolving) funds to community based credit schemes, other assistance agencies will need to provide funds and RFLP should lend technical and organizational support.

On the base of these findings, the following table assesses the proposed outputs following different criteria:

	Scope	Significance²⁰	Costs	Feasibility	Sustainability	Acceptance
Output 1	medium	high	medium	medium	high for fully empowered CFIs	high in the CFIs
Output 2	high	high	medium to high	high if finance is available	high, depending on awareness	not known
Output 3	medium	high	high	high for improving landing sites	not known	not known
Output 4	medium to high	medium to high	medium	to be investigated	to be investigated	to be investigated
Output 5	Low	medium	not known	low	not known	not known

According to this evaluation, RFLP inputs and delivery should cover the first four outputs, leaving output 5 open for inputs if conditions change. The recommendations offered should be discussed, revalidated or readjusted during the national inception workshop and during implementation. According to the final program log frame, the budget should be revised, in particular regarding international and national consultancy inputs and contracts.

²⁰ For RFLP objectives

5.11 ASSESSMENT OF OUTPUTS, RESULTS, ACTIVITIES AND IMPLEMENTING PARTNERS

According to the findings and evaluation above, it is proposed to restructure the generic Programme Matrix provided in the ProDoc to correspond to sector needs in coastal Cambodia, including reviewing potential implementing partners and coordination mechanisms.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level

Results	Activities	Comments
1. Baseline data completed and baseline for M&E established	1.1 Carry out a baseline survey in selected CFIs	The survey should be conducted by the RFLP M&E staff in close collaboration with district and local authorities, building on existing data and information. Due attention should be paid to local knowledge (using PRA methods and tools). The survey should include a poverty and vulnerability assessment and an assessment of livelihood assets. A short term international consultant input may be beneficial for designing the methodology.
	1.2 Develop a baseline for midterm and final evaluation	The resulting data and information should be operationalized in a base line format, to be used for M&E and Project evaluations.
2. CFIs empowered for co-management	2.1 Disseminate information regarding existing legal and regulatory frameworks enabling co-management	Dissemination workshops should be conducted on cantonment level, open for all fishers of the cantonment and for FIA cantonment and district staff. For the CFIs/communities selected for RFLP interventions follow up, on the job training in the communities should be conducted regularly. Cantonment level training should be carried out by FiA/DCFD staff and facilitated by RFLP, for follow up training a development partner with proven subject matter capacity could be subcontracted.
	2.2 Inform coastal communities/CFIs and commune councils about option and potential of co-management	Training packages on co-management exist, but need to be adapted to the specific needs of marine fisheries. Emphasis should be on political participation, socio-political representation, transparency and accountability, and on mediation and conflict resolution. Packages should be developed by FiA/DCFD and RFLP, with a national specialist consultant or, if not available, by an international consultant. Training will be carried out by FiA/DCFD staff and facilitated by RFLP.
	2.3 Train CFIs and communities in co-management and monitoring of catch and effort (on the job, in the communities)	RFLP should facilitate fisheries committees comprised of CFI representatives, FiA cantonment staff and local government, on a three monthly basis and annually, to institutionalize communication and coordination, as well as ad hoc communication on pressing issues.
	2.4 Improve communication and coordination with local government and cantonment FiA	FiA should explore feasibility, realism, costs and benefits of a Federation of CFI on national level, as provided for in the legal framework.

Results	Activities	Comments
	2.5 Improve socio political representation of CFis	Experiences and lessons learned should be communicated to other communities and CFis, to the public (by frequent media coverage), and to RGC ministries and fora, as well as to the international/donor community.
	2.6 Improve visibility of the need to manage marine fisheries and of the potential for co-management	
	2.7 Complement existing surveillance means of CFis	CFis will need more equipment (speed boats, logistics, binoculars, GPS cameras etc.) to safeguard CFI areas from free riders, to protect sanctuaries and to participate in combating IUU fishing. Activities should be coordinated with other donors as DANIDA, DFID, UNDP/GEF etc. and other partners.
	2.8 Assist in the formulation of CFi area management plans (CFAMPs) and in the implementation of existing plans	Some CFis have CFAMPs but lack behind in implementation, sometimes because other requirements, as institutional by-laws and internal rules and regulations, are missing, sometimes because provincial/local authorities are reluctant to approve plans. Others have no plans yet. Efforts should capitalize on experiences, lessons learned and methodologies from CFi development in inland fisheries and activities should be coordinated with other donors as DANIDA, DFID, UNDP/GEF etc. and implementing partners, through the TWGFi.
	2.9 Facilitate the integration of CFAMPs into local planning processes (CC plans)	As shown from the Tonle Sap experience, integration of CFAMPs in local (e.g. commune council) management plans is crucial for CFi success. RFLP is well placed to act as an "honest broker" to facilitate integration. Integration should be communicated to CFi members and FiA.
3. M&E capacities and data application on province, cantonment and CFi level improved	3.1 Facilitate training of cantonment staff and CFis in M&E methodologies and data management	Training would include catch and effort monitoring, monitoring of conflicts and infringements and IUU fishing, and monitoring of socio-economic indicators. Training would be done by FiA staff (and the Marine Research Institute when it becomes operational) and facilitated by RFLP staff and national consultant inputs.
	3.2 Facilitate regular M&E by cantonment FiA and CFis	RFLP should assist FiA in the development of an appropriate (simple) M&E format and provide logistical support to carry out M&E. Monitoring catches and effort will increase fisher's awareness of stock dynamics and strengthen the position of CFis and cantonment FiA vis-a vis provincial/local authorities and interest groups.
	3.3 Facilitate application of data in national, provincial and cantonment plans and adjust CFAMPs accordingly	RFLP should provide hard and software where not yet in place and support data management and application on all levels, including for awareness raising of CFi and non CFi fishers

Results	Activities	Comments
<p>4. Implementation, planning and MCS capacities of FiA to manage marine fisheries improved on all levels</p>	<p>4.1 Support the implementation of the Strategic Planning Framework for Fisheries 2010 – 2019 and facilitate adjustments</p>	<p>While RFLP support capacities are limited by time and finance available, the program could, in addition to providing direct support, assist in mobilizing assistance by the donor community and encourage political engagement of RGC and other government institutions.</p>
	<p>4.2 Strengthen the capacity of FiA and RGC to implement international agreements and conventions</p>	<p>Compliance with international legal provisions will greatly contribute to sector management at large and improve the standing of RGC on regional and international floors.</p>
	<p>4.3 Support the development of National Plans of Action (NPOAs) to combat IUU fishing and management of fishing capacity and other NPOAs</p>	<p>The NPOA IUU is mandatory for exports of fish and fishery products to the EU, and managing Cambodia's fishing capacity, including that of foreign fleets operating in the Cambodian EEZ, will contribute to regional and international efforts towards responsible and sustainable fisheries. For results 4.1 to 4.3 international consultant inputs may be desirable.</p>
	<p>4.4 Review and improve the present registration and licensing system</p>	<p>RFLP should support, through an interagency committee or a similar mechanisms, the harmonization and comprehensiveness of registration and licensing of vessels, to make them more conducive to resource and capacity management, using FAO and RFMO standards.</p>
	<p>4.5 Train inspectors in port and at sea inspections (including safety at sea and quality control)</p>	<p>Training should be done by FiA specialized departments and facilitated by RFLP by the provision. Emphasis should be on national and international laws and regulatory frameworks, as well as on FAO voluntary instruments. The same inspectors would be capacitated to monitor compliance of fisheries regulations, safety at sea measures and quality/hygiene standards.</p>
	<p>4.6 Facilitate transparent and accountable port and vessel inspections</p>	<p>Transparent and accountable inspections are crucial to compliance. RFLP should provide logistic support, and facilitate backstopping and monitoring by FiA and other line ministries involved, and facilitate (institutionalized) collaboration with other executive agencies involved (port authorities, maritime police etc.).</p>
	<p>4.7 Explore the feasibility of (scientific) observer programs</p>	<p>Observer programs could be supported on pilot scale to test feasibility and cost effectiveness.</p>
	<p>4.8 Support vertical data flows on compliance and infringements and data management by training and regular reporting</p>	<p>Improved data exchange and management will increase accessibility and use of data for MCS and resource/capacity management on all levels. RFLP could provide training/training of trainers by national consultants.</p>

Results	Activities	Comments
<p>5. Enable FiA, other line ministries and CFis to protect and restore critical ecosystems and habitats</p>	<p>5.1 Survey coastal areas for existing and potential protected areas and ecosystems</p>	<p>The survey should include an assessment of local knowledge regarding breeding and nursing areas and critical habitats endangered or destroyed by development, and use existing data and information in collaboration with other assistance efforts. RFLP and FiA should seek collaboration from qualified development partners. RFLP should support the survey logistically and by national consultant inputs and assist in its documentation.</p>
	<p>5.2 Explore the feasibility of protecting and restoring habitats and ecosystems</p>	<p>This activity should include biological, social and economic feasibility, involving the same implementing partners; it should result in a phased plan for protection and restoration of coastal ecosystems and specific habitats to be disseminated among RGC agencies and the donor community.</p>
	<p>5.3 Strengthen CFis and cantonment FiA staff to formulate and implement protection and restoration plans</p>	<p>Because of its complexity, this activity should be broken down into sub activities and a specific log frame/work plan should be developed in a separate workshop (facilitated by RFLP) involving all stakeholders, including involved RGC agencies, donors and qualified implementing partners.</p>
	<p>5.4 Lobby RGC and donor community to provide support</p>	<p>Because of the limited timeframe and budget of RFLP and the need to mobilize additional assistance and political support it is important to create visibility and media support. RFLP should take a major role in this.</p>

Output 2: Safety at sea improved

Results	Activities	Comments
1. FiA and Cantonment FiAs assisted in the issuance and enforcement of safety regulations	1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes	The assessment should be done for every province and record data for different fleet segments, gear types and fishing grounds, as well as for accidents which happen as a result of conflicts.
	1.2 Support authorities to draft and issue comprehensive safety at sea regulations, including a boat building standard	On the base of the survey, regulations should be developed including an enforceable boat building standard. Lessons learned and experiences from the region should be used, for the boatbuilding standard RFLP should employ international expertise.
	1.3 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and CFis	RFLP should employ a national consultant to develop a monitoring format and data bank, and train FiA cantonment staff. Monitoring and data management is needed to record impacts and improve acceptance of safety at sea measures and regulations, and to adjust the latter.
	1.4 Include safety at sea in the training of inspectors and monitor enforcement	The provisions of the Fisheries Law regarding role, status and powers of inspectors are still little understood on cantonment and CFi level. Training, in particular of inspectors is needed to improve compliance with all regulations, including those issued to improve safety at sea
	1.5 Facilitate vertical and horizontal data exchange	Data exchange, to central FiA and to other cantonments/CFis would facilitate learning and a common understanding of needs and options for safety at sea, and create awareness.
2. Awareness of fishers on safety issues, existing regulations, risk reduction options, and acceptance of measures for improvement raised	2.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations	The assessment should be done for clusters of fishing communities, to capture area specific characteristics of present situations and options employing participatory approaches. RFLP national consultants or a qualified development partner should collaborate with cantonment FiAs and representatives of communes and CFis to carry out the assessment.
	2.2 Conduct awareness campaigns in communes and CFis on existing regulations, major issues and risk reduction options	The campaigns should be done for clusters of fishing communities, to reduce costs.

Results	Activities	Comments
	2.3 Train communes and CFIs in risk reduction strategies and enable them to sustain training impacts by regular follow up training	National RFLP consultants or a qualified development partner should collaborate with cantonment FiA staff in this activity.
	2.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment	On the base of the above, technically sound and culturally sensitive training packages should be developed, including visuals as posters and flyers, and media features.
		FiA and RFLP should approach other assistance agencies to raise sufficient funds and economize procurement of equipment (live vests, rafts, lights and whistles, compatible communication etc.)
3. Capacities of FiA and executing agencies for sea rescue improved	3.1 Train cantonment FiAs and other agencies in sea rescue	Training modules should be developed and training, including regular retraining should be done by FiA. RFLP should facilitate training of trainers.
	3.2 Disseminate rescue possibilities to fishers and train them how to request and respond to rescue operations	This activity should be included in the awareness campaigns proposed above.
	3.3 Improve equipment and logistics of rescue vessels	FiA and RFLP should approach other assistance agencies to raise sufficient funds and economize procurement of equipment
4. Cambodian weather forecast and warning system established	4.1 Assist FiA to lobby RGC agencies and the donor community	A need assessment should be carried out by FiA and RFLP and results should be made available to other RGC ministries and agencies, and the donor community and media, to raise awareness of the issue. RFLP should organize a study tour for decision makers in the region, to learn from experiences, issues and problems in other countries.
	4.2 Assist FiA to develop an action plan	RFPL to provide planning support.
	4.3 Assist in the implementation of the plan	FiA and RFLP should approach other assistance agencies to raise sufficient funds and economize procurement of equipment

3. Measures for improved quality of fishery products and market chains

Results	Activities	Comments
1. Needs and potentials of improving handling and storage of catches assessed	1.1 Carry out an assessment of present practices on options for improvement in selected CFIs	The assessment should record information for different fleet segments and main target species/species groups. It should build on previous work, e.g. the DFID financed post harvest study. RFLP should provide a national consultant to assist in the assessment.
	1.2 Carry out feasibility studies and trials, with CFIs, on identified options	This activity requires prolonged field work and careful monitoring. It should be guided by FiA and RFLP; qualified partners should carry out the field activities. Training in costs/benefits and accounting should be included.
	1.3 Consolidate results, develop training modules and provide on the job training to CFI members, with focus on women	The same implementing partners should be involved; training of trainers (CFI members) would increase sustainability.
	1.4 Investigate market demand and potential for improved products	This activity needs to be organized as an ongoing effort and operationalized in a suitable and accessible data bank. RFLP should provide a national consultant for design and periodical follow up.
	1.5 Develop a simple and accessible market information system	RFLP, together with FiA, should explore possibilities and sustainability of this activity, propose options and assist in implementation, using the same consultant to assist the FiA specialized department.
2. Physical and hygiene conditions at landing sites improved	2.1 Assess present berthing and landing facilities in CFIs and identify potential and options for improvement	This activities needed to achieve this result should be guided and supervised by FiA and RFLP, in liaison with other responsible RGC agencies. For implementation a development partner specialized in waste and sanitation should be contracted.
	2.2 Raise awareness of fishers and CFIs of the need to improve sanitary and hygiene of handling, storing and pre-processing of landings	
	2.3 Raise awareness of CFIs for the need to improve overall sanitary and health conditions	As sanitary and hygiene conditions often hinge on availability of land and berthing space on shore and in estuaries, FiA and RFLP should involve provincial and district authorities in these efforts. Land availability and tenure is a cross cutting issue, as is gender, both are relevant also for output 4.
	2.4 Promote “clean up” campaigns and sustainable improvements	“Clean up” should focus on waste disposal, water supply and toilets, also beyond the needs directly linked to post harvest operations.
	2.5 Monitor and disseminate results in other communities and CFIs	This activity would concentrate on success stories, lessons learned and best practices, also making use of the media.

Results	Activities	Comments
3. Inspectors trained in quality control and giving to advice to fishers	3.1 Train inspectors in national and international quality standards including traceability	Inspections of sanitary standards and traceability are high on the agenda of FiA but province and cantonment inspectors have limited means and capacities. Because of the international standards required for export in the future, an international consultancy would be beneficial to transfer know how to provincial and cantonment FiA.
	3.2 Train inspectors in responsible conduct of inspections	Presently inspections are not always transparent and accountable and responsible conduct is required to increase acceptance by the fishers.
	3.3 Develop monitoring and reporting scheme for inspectors	Data and information from inspections will be needed to be recorded, managed and made available to central level control agencies. Both activities could be carried out by national consultants, facilitated by the international consultant and guided by RFLP.
4. Availability, in quantity and quality, of ice improved and use of ice promoted	4.1 Investigate present ice making capacities and quality of product	The assessment should include total capacity per province, quality, prices, seasonality of demand and accessibility to small scale fishers. The assessment should include practices and perception of ice use by fishers, problems, constraints and options to overcome them.
	4.2 Assess ice use and identify gaps and shortcoming of ice production and identify solutions	This activity should build on previous work; RFLP should provide a national consultant input.

4. Diversified income opportunities for fisher families

Results	Activities	Comments
1. Potentials for diversified income opportunities in CFis assessed	1.1 Carry out PRAs to assess past and present experiences, lessons learned, needs and means and perception of CFi members	The PRAs should follow up the initial survey and take past and present experiences of other assistance agencies into account. They should concentrate on areas outside fish capture and post harvest and include a gender and SWOP analysis. Facilitation should be by RFLP, cantonment FiA need to be involved, there should be liaison with local government.
	1.2 Catalogue options for all fisheries communities and CFis and carry out socio-economic and socio-cultural feasibility studies	RFLP should provide national consultant inputs, studies should take external factors into account, e.g. land availability for agriculture and animal husbandry, the need for improved sanitary and health conditions for eco-tourism development, market demand for products.
	1.3 Disseminate study results to potential implementing/funding partners	Given the logistic and funding limits of RFLP, collaboration with other organizations should be sought to increase impact, effectiveness and sustainability (with LoAs giving FiA/RFLP a guiding and supervising role).
2. Carry out trials	2.1 Select CFis with the best potential for successful income diversification activities	Selection should be based on existing information (with the cantonment FiAs) and validated during the initial survey and follow up assessments.
	2.2 Train CFi members in small scale business skills and simple accounting	Training should make use/adapt existing materials and employ learning by doing approaches instead of frontal training. Successful trials will be crucial to multiplication and mobilization of additional funds and assistance; selection should be done on the base of past experiences and factors like acceptability to and innovative capacities of participating households.
	2.3 Carry out trials on community level	Trials need to minimize risks for households should collaborate with specialized FiA Departments (e.g. the Aquaculture Department for small scale marine aquaculture), subject matter specialized s or other organizations.
	2.4 Monitor and document results and disseminate to RGC agencies and media	Results have to be made visible, with focus on success stories. Documents and media coverage should be authored by FiA and RFLP.
3. Facilitate inter-agency cooperation	3.1 Facilitate inter-agency cooperation for cross cutting issues	For cross cutting issues other RGC institutions need to be involved. RFLP should support FiA in setting up respective fora.
	3.2 Facilitate inter-agency cooperation with specialized RGC agencies and qualified donors/s/qualified development partners	Mandated RGC agencies need to be involved where responsibilities overlap with FiA, other organizations should be approached through the TWGFi. RFLP national team should facilitate.

5. Facilitated access to microfinance services for fishers, processors and vendors

Results	Activities	Comments
1. Viability, needs and potential of microfinance in CFIs assessed	1.1 Study needs and potential viability of microfinance for productive purposes	Studies need to consider technical viability of options to use microfinance productively and sustainably, taking income flows and repayment capacities of potential lenders into account. RFLP should employ a qualified national consultant for this activity. The comparative advantages or disadvantages of established informal credit need to be factored in.
	1.2 Disseminate results to microfinance institutions	It is not anticipated that microfinance institutions change established lending policies but improved knowledge about potentially performing loans may facilitate lending for some investments.
2. Potential for community based saving groups assessed and monitored	2.1 Assess past experiences and lessons learned with CB saving groups	The assessment should include experiences in other primary production sectors and include socio-cultural determinants. A qualified consultant (with knowledge of social structures and socio-cultural dimensions of rural organization) should be employed.
	2.2 Monitor changes in attitudes and value patterns relevant for collective saving and lending	While past experiences are not encouraging, conditions may change, if only in some communities, proving opportunities for innovation.
	2.3 Source funds for pilot saving groups and facilitate and monitor	If and when potentials for saving groups become evident, RFLP should provide other assistance agencies for funds and seed money.
3. CFI members trained in financial planning and management	3.1 Develop simple training packages and aids	Training materials should consider existing efforts and experiences from other organizations.
	3.2 Provide training and retraining on the job	Training should be streamlined with respective training efforts under output 3 and 4.
	3.3 Monitor training impacts and sustainability and adjust training	Results should be disseminated to implementing partners and microfinance institutions.

5.12 ASSESSMENT AND RESTRUCTURING OF INDICATORS

Annex 2 of the ProDoc shows a generic logical framework including objectively verifiable indicators, methods of verification and assumptions on objective and output level²¹. Indicators were formulated using quantifiable parameters and qualitative measurements as perception scorecards. However, the conceptual framework proposed is highly aggregated. It will be useful for monitoring on output level and for midterm and final evaluations. To monitor project progress, indicators are proposed for the restructured outputs and results in the following. Where

²¹ The matrix is attached in the Annex

realistic, time lines are proposed; where this was not possible timelines should be decided during the national inception workshop.

Output 1	Indicators	Methods of Verification
Result 1	Base line data processed and operationalized (by month 3 after inception)	RFLP planning documents
Result 2	All collaborating CFIs have comprehensive CFAMPs; plans are integrated in commune plans (by end of first year)	FiA/commune records
	Implementation of plans is considered satisfactory by CFI members	Perception score cards
	Communication of CFIs with cantonment FIAs and local government is institutionalized, e.g. in fisheries committees	Committee records
Result 3	Training delivered (by month 6) and retraining program is in place	RFLP M&E
	At least 2 officials/cantonment mandated for M&E and data management (by month 6)	FiA records
	At least 2 FA members receive incentives for M&E (by month 6)	RFLP M&E
	Catch and effort data is processed and available for resource management (by end of first year)	FiA records
Result 4	Interagency cooperation for registration and licensing established (month 6)	FiA records, media
	Vessel registration and licensing comprehensive (by end of first year)	FiA records
	NPOA on IUU fishing drafted (end 2010)	FiA records
	Transparent and accountable port and vessel inspections are carried out/documented (end of year 2)	FiA records and RFLP M&E
	Results of pilot observer programs available, logbooks restructured and used (by end year 2)	FiA records and RFLP M&E
	Surveillance and control protocol between FiA and executive agencies in place (by end year 1)	FiA records, media
	MCS data bank in operation (by end year 1)	FiA records
Result 5	Encroachment/infringement of protected areas insignificant for resource/ecosystem protection (end of project)	FiA records, RFLP M&E, media, midterm review, final evaluation
	CFI members and non members share objectives of habitat protection (end of project)	RFLP M&E, perception scorecards

Output 2	Indicators	Methods of Verification
Result 1, 2 and 3	Compliance with safety at sea regulations achieved for 80% of CF fishers (year 3)	FiA inspection records, RFLP M&E
	Boat building standard developed and implemented in target cantonments (by year 2)	FiA records, RFLP M&E, media
	Accidents of CFi fishers decreased by 80%	Provincial records
	Costs of safety equipment considered justified by 80% of CFi fishers (by year 3)	RFLP M&E, perception scorecards
Result 4	Weather forecast system in place (by year 2) System considered effective by CFi and Non CFi fishers	FiA records, RFLP M&E RFLP M&E, perception scorecards

Output 3	Indicators	Methods of Verification
Result 1 and 4	Sanitary conditions and quality of landings improved 80% for CFis, 50% overall	RFLP M&E, FiA cantonment inspection records
Result 2	“Clean up” campaigns successful in 90% of CFis, other communities follow	RFLP M&E, commune records
	Improved sanitary and health conditions considered beneficial for product quality by 80% of CFi fishers	Perception scorecards
Result 3	Evaluation of training impact show increase in knowhow of inspectors sufficient for controlling sanitary standards (by end of year 1)	Periodic evaluation of training impact by trainers
	Inspections are considered transparent and accountable by fishers	Perception scorecards

Output 4	Indicators	Methods of Verification
Result 1	Other organization provide assistance to diversified incomes	RFLP M&E
Result 2	“Success stories” are documented and disseminated	RFLP M&E, media
	Other communities copy	RFLP M&E, media, commune records
Result 3	Interagency for a to tackle cross cutting issues	FiA records, RFLP M&E
	TWGFi includes cross cutting issues in agenda	TWGFi records

Output 5	Indicators	Methods of Verification
Result 1	Microfinance institutions are aware of CFI finance needs (by end year 1)	RFLP M&E
Result 2	Potentials and constrains of CFI based saving groups are documented, regularly updated and disseminated to potential implementing partners (continuing after initial assessment)	RFLP M&E, media
Result 3	Training impacts improve economic performance of income generation in CFs by 25%	RFLP M&E

It is recommended that, during inception, a work plan is elaborated for all the activities endorsed by the national inception workshop following the matrix below. This will provide transparency for RFLP management and staff regarding progress achieved at any given time, and motivation to staff and implanting partners to deliver.

Result	Time frame	Mile-stones	Implementing partner	RFLP staff responsible	Budget delivery
Activity					

5.13 SUMMARY MATRIX OF OUTPUTS, RESULTS, AND POTENTIAL IMPLEMENTING PARTNERS

The following matrix shows the identified potential implementing partners for achievement of proposed outputs, results and the activities. The national team prefers not to specify implementing partners beyond those foreseen in the implementation arrangements; the following matrix takes this reservation into account. Project inputs by national and international consultants are not specified neither at this stage, options are indicated in the proposed log frame matrix above.

Output 1: Fisheries Co-Management capacities improved and developed on province and local government level

Results	Activities	Implementing Partners
1. Baseline data completed and baseline for M&E established	1.1 Carry out a baseline survey in selected CFis	Cantonment FiA and local authorities
	1.2 Develop a baseline for midterm and final evaluation	FiA DCFD
2. CFis empowered for co-management	2.1 Disseminate information regarding existing legal and regulatory frameworks enabling co-management	FiA
	2.2 Inform coastal communities/CFis and commune councils about option and potential of co-management	
	2.3 Train CFis and communities in co-management and monitoring of catch and effort (on the job, in the communities)	DCFD and cantonment FiA
	2.4 Improve communication and coordination with local government and cantonment FiA	FiA cantonments, DCFD, other donors as DANIDA, DFID, UNDP/GEF etc.
	2.5 Improve socio political representation of CFis	FiA, DANIDA, DFID, UNDP/GEF etc. through the TWGFi.
	2.6 Improve visibility of the need to manage marine fisheries and of the potential for co-management	FiA, media
	2.7 Complement existing surveillance means of CFis	Other donors
	2.8 Assist in the formulation of CFi area management plans (CFAMPs) and in the implementation of existing plans	DCFD
	2.9 Facilitate the integration of CFAMPs into local planning processes (CC plans)	FiA, DANIDA, DFID, UNDP/GEF etc. through the TWGFi.

3. M&E capacities and data application on province, cantonment and CFi level improved	3.1 Facilitate training of cantonment staff and CFis in M&E methodologies and data management	FiA specialized departments, SEAFDEC (formats, methodologies)
	3.2 Facilitate regular M&E by cantonment FiA and CFis	DCFD
	3.3 Facilitate application of data in national, provincial and cantonment plans and adjust CFAMPs accordingly	DCFD, commune councils, province authorities and cantonment FiA
4. Implementation, planning and MCS capacities of FiA to manage marine fisheries improved on all levels	4.1 Support the implementation of the Strategic Planning Framework for Fisheries 2010 – 2019 and facilitate adjustments	FiA, DANIDA, DFID, UNDP/GEF etc. through the TWGFi.
	4.2 Strengthen the capacity of FiA and RGC to implement international agreements and conventions	FAO, RFMOs, donor community
	4.3 Support the development of National Plans of Action (NPOAs) to combat IUU fishing and management of fishing capacity and other NPOAs	FAO, RFMOs, donor community
	4.4 Review and improve the present registration and licensing system	FiA with other Ministries.agencies, FAO, RFMOs
	4.5 Train inspectors in port and at sea inspections (including safety at sea and quality control)	FiA specialized departments
	4.6 Facilitate transparent and accountable port and vessel inspections	FiA specialized departments
	4.7 Explore the feasibility of (scientific) observer programs	FiA specialized departments
	4.8 Support vertical data flows on compliance and infringements and data management by training and regular reporting	FiA specialized departments, SEAFDEC for software/methodologies

5. Enable FiA, other line ministries and CFIs to protect and restore critical ecosystems and habitats	5.1 Survey coastal areas for existing and potential protected areas and ecosystems	CFi resource persons, cantonment FiAs
	5.2 Explore the feasibility of protecting and restoring habitats and ecosystems	CFi resource persons, cantonment FiAs, qualified development partners and media support. RFLP should take a major role in this.
	5.3 Strengthen CFIs and cantonment FiA staff to formulate and implement protection and restoration plans	The same implementing partners, RGC agencies and the donor community.
	5.4 Lobby RGC and donor community to provide support	The same implementing partners, the donor community, TWHFi, media

Output 2: Safety at sea improved

Results	Activities	Comments
1. FiA and Cantonment FiAs assisted in the issuance and enforcement of safety regulations	1.1 Assist authorities to assess typology of accidents, occurrence patterns and causes	FiA/DCFD, province authorities and executive agencies
	1.2 Support authorities to draft and issue comprehensive safety at sea regulations, including a boat building standard	FiA specialized departments, FAO Legal Department
	1.3 Assist authorities to monitor accidents, store and manage data and disseminate updated lessons learned to local government, communes and CFis	FiA/DCFD, province authorities and executive agencies
	1.4 Include safety at sea in the training of inspectors and monitor enforcement	FiA specialized departments
	1.5 Facilitate vertical and horizontal data exchange	FiA specialized departments, cantonment FiAs
2. Awareness of fishers on safety issues, existing regulations, risk reduction options, and acceptance of measures for improvement raised	2.1 Assess awareness, attitudes, needs and means of fishers with respect to safety of their fishing operations	CFi resource persons, cantonment FiAs, qualified development partners,
	2.2 Conduct awareness campaigns in communes and CFis on existing regulations, major issues and risk reduction options	FiA DCFD, cantonment FiAs and representatives of communes and CFis, qualified development partners
	2.3 Train communes and CFis in risk reduction strategies and enable them to sustain training impacts by regular follow up training	FiA DCFD, cantonment FiAs and representatives of communes and CFis, qualified development partners, media
	2.4 Explore possibilities to reduce costs, to fishers, of safety at sea equipment	FiA, other assistance agencies
3. Capacities of FiA and executing agencies for sea rescue improved	3.1 Train cantonment FiAs and other agencies in sea rescue	FiA specialized departments
	3.2 Disseminate rescue possibilities to fishers and train them how to request and respond to rescue operations	FiA DCFD, cantonment FiAs and representatives of communes and CFis, qualified development partners, media
	3.3 Improve equipment and logistics of rescue vessels	FiA, other assistance agencies

4. Cambodian weather forecast and warning system established	4.1 Assist FiA to lobby RGC agencies and the donor community	FiA DCFD, cantonment FiAs and representatives of communes and CFis, qualified development partners, media
	4.2 Assist FiA to develop an action plan	FiA, responsible line ministries and RGC agencies
	4.3 Assist in the implementation of the plan	FiA, responsible line ministries and RGC agencies, other assistance agencies

3. Measures for improved quality of fishery products and market chains

Results	Activities	Comments
1. Needs and potentials of improving handling and storage of catches assessed	1.1 Carry out an assessment of present practices on options for improvement in selected CFIs	Fia specialized departments, CFI resource persons, cantonment FiAs, qualified development partners,
	1.2 Carry out feasibility studies and trials, with CFIs, on identified options	Fia specialized departments, CFI resource persons, cantonment FiAs, qualified development partners,
	1.3 Consolidate results, develop training modules and provide on the job training to CFI members, with focus on women	Fia specialized departments, CFI resource persons, cantonment FiAs, qualified development partners, CFI members
	1.4 Investigate market demand and potential for improved products	Fia specialized departments, cantonment FiAs, qualified development partners
	1.5 Develop a simple and accessible market information system	FiA specialized departments, qualified development partners and donors
2. Physical and hygiene conditions at landing sites improved	2.1 Assess present berthing and landing facilities in CFIs and identify potential and options for improvement	FiA and development partners specialized in waste and sanitation, provincial and district authorities
	2.2 Raise awareness of fishers and CFIs of the need to improve sanitary and hygiene of handling, storing and pre-processing of landings	FiA and development partners specialized in waste and sanitation, provincial and district authorities
	2.3 Raise awareness of CFIs for the need to improve overall sanitary and health conditions	FiA, mandated RGC agencies, other development partners specialized in waste and sanitation, provincial and district authorities
	2.4 Promote “clean up” campaigns and sustainable improvements	FiA, mandated RGC agencies, other development partners, media
	2.5 Monitor and disseminate results in other communities and CFIs	FiA, mandated RGC agencies, other development partners

<p>3. Inspectors trained in quality control and giving to advice to fishers</p>	<p>3.1 Train inspectors in national and international quality standards including traceability</p> <p>3.4 Train inspectors in responsible conduct of inspections</p> <p>3.3 Develop monitoring and reporting scheme for inspectors</p>	<p>Fia specialized departments, FAO, EC</p> <p>FiA, mandated RGC agencies, other development partners</p> <p>Fia specialized departments</p>
<p>4. Availability, in quantity and quality, of ice improved and use of ice promoted</p>	<p>4.1 Investigate present ice making capacities and quality of product</p>	<p>Fia specialized departments, cantonment FiAs, CFi resource persons</p>
	<p>4.2 Assess ice use and identify gaps and shortcoming of ice production and identify solutions</p>	<p>FiA specialized departments, cantonment FiAs, CFi resource persons</p>
	<p>4.3 Improve ice use</p>	<p>Fia specialized departments, cantonment FiAs, private sector</p>

4. Diversified income opportunities for fisher families

Results	Activities	Comments
1. Potentials for diversified income opportunities in CFis assessed	1.1 Carry out PRAs to assess past and present experiences, lessons learned, needs and means and perception of CFi members	Cantonment FiAs, CFi resource persons, local government representatives, other organizations active in income creation
	1.2 Catalogue options for all fisheries communities and CFis and carry out socio-economic and socio-cultural feasibility studies	Fia specialized departments, cantonment FiAs, other organizations active in income creation, e.g. ecotourism
	1.3 Disseminate study results to potential implementing/funding partners	FiA DCFD, TWGFi
2. Carry out trials	2.1 Select CFis with the best potential for successful income diversification activities	Cantonment FiAs, CFi resource persons, local government representatives, other organizations active in income creation
	2.2 Train CFi members in small scale business skills and simple accounting	Cantonment FiAs, CFi resource persons, local government representatives, other organizations active in income creation
	2.3 Carry out trials on community level	Qualified development partners, CFis, households, media
	2.4 Monitor and document results and disseminate to RGC agencies and media	Cantonment FiAs, qualified development partners
3. Facilitate inter-agency cooperation	3.1 Facilitate inter-agency cooperation for cross cutting issues	FiA, mandated RGC institutions, TWGFi
	3.2 Facilitate inter-agency cooperation with specialized RGC agencies and donors/qualified development partners	FiA, mandated RGC institutions, TWGFi, donors/qualified development partners

5. Facilitated access to microfinance services for fishers, processors and vendors

Results	Activities	Comments
1. Viability, needs and potential of microfinance in CFIs assessed	1.1 Study needs and potential viability of microfinance for productive purposes	Cantonment FiAs, CFI representatives, representatives of microfinance institutions
	1.2 Disseminate results to microfinance institutions	FiA/DCFD
2. Potential for community based saving groups assessed and monitored	2.1 Assess past experiences and lessons learned with CB saving groups	Cantonment FiAs, local government, CFI resource persons
	2.2 Monitor changes in attitudes and value patterns relevant for collective saving and lending	Cantonment FiAs, local government, CFI resource persons, qualified development partners
	2.3 Source funds for pilot saving groups and facilitate and monitor	FiA, TWGFi
3. CFI members trained in financial planning and management	3.1 Develop simple training packages and aids	DCFD, cantonment FiAs, organizations and implementing partners with relevant experience, microfinance institutions
	3.2 Provide training and retraining on the job	DCFD, organizations and implementing partners with relevant experience, microfinance institutions
	3.3 Monitor training impacts and sustainability and adjust training	DCFD, cantonment FiAs, organizations and implementing partners with relevant experience

ANNEX 1: TERMS OF REFERENCE

Project Purpose and Background:

The Regional Fisheries Livelihoods Programme RFLP, which began activities in September 2009, is funded by Spain (US\$ 19.54 million) and will operate for 4 years in Cambodia, Indonesia, Philippines, Sri Lanka, Timor-Leste and Viet Nam. RFLP management, including the Regional Manager and the Technical Advisor are based in the FAO Asia and the Pacific Offices in Bangkok, Thailand; while each country will have a national RFLP office located in the main area of RFLP geographic focus.

The RFLP addresses the following issues in south and south-east Asia:

- The failure to manage the interface between fisheries and the wider external environment;
- Over-fishing, declining stocks and catch per unit effort and threatened aquatic species;
- The vulnerability of poor small-scale fisher communities and their livelihoods;
- Spoilage of aquatic product along the distribution chain and low income for small-scale fishers for their product; and
- Limited development focus on poor small-scale fisher communities, limited access to micro-finance services and extremely limited supplementary and/or alternative livelihood options.

The primary stakeholders and target beneficiaries are (i) coastal fishers, processors, traders and their families, their organizations and their communities, including the local authorities and; (ii) government organizations and institutions responsible for the administration, management and development of the coastal fisheries at local, district/province and national levels.

The RFLP outcome will be:

‘Strengthened capacity among participating small-scale fishing communities and their supporting institutions towards improved livelihoods and sustainable fisheries resources management’.

Major RFLP outputs will be:

- Co-management mechanisms for sustainable utilization of fishery resources;
- Improved safety and reduced vulnerability for fisher communities;
- Improved quality of fishery products and market chains;

- Diversified income opportunities for fisher families;
- Facilitated access to microfinance services for fishers, processors and vendors; and
- Regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management.

General Responsibilities:

The consultant will travel to 3 of the RFLP 6 countries, namely Viet Nam, Cambodia, and Sri Lanka (in this order) and in selected areas of the geographic location where RFLP will conduct activities make field visits and hold discussions with key stakeholders. The objective of the consultancy is to identify if any stakeholder groups and support institutions were missed during the national RFLP identification missions, and to identify any developments since that will impact on RFLP outcome and outputs in the 3 RFLP countries. Thereafter the consultant will provide recommendations for activity revision and recommendations for people and institutions to conduct activities, and recommendations for output indicators and data collection methods. This consultancy will facilitate RFLP achieving its outcome and outputs, and allow RFLP to show impact.

Specifically, the consultant will:

- Travel to RFLP regional office for a briefing with the RFLP management team at the FAO Asia Pacific Office in Bangkok;
- Travel to Viet Nam, Cambodia, and Sri Lanka (in that order) and in selected areas of the geographic location where RFLP will conduct activities make field visits and hold discussions with key stakeholders to identify if any stakeholder groups and support institutions were missed during the national identification missions for RFLP in the chosen national RFLP geographic area, and to document any key developments since the national identification mission in the area which are likely to impact on the RFLP outcome and six outputs given above;
- Make recommendations for updating RFLP activities in each of the 3 countries to ensure the achievement of planned RFLP outcome and outputs;
- Identify the most appropriate people/institutions to work with to implement RFLP activities at both national and international level, giving detailed explanations why and proposing alternative people/institutions;
- Identify the best indicators at activity and output level giving detailed explanations on how each indicator meets RFLP needs, and detailing how to collect the required data taking into account, cost, logistics, existing manpower resources and capacity etc.;
- Prepare PowerPoint presentations on the following to be delivered at the national inception workshops:
 - The validity (or not) of the original identified activities achieving RFLP expected outcome and outputs, and recommendations for revised and new activities with supporting reasons;
 - RFLP indicators and recommendations for revision at output and activity level and type of indicator (measuring impact, quality, quantity, etc.) with supporting reasons; and
 - Recommendations for the most appropriate people/institutions etc. to conduct RFLP activities at national and regional level, with supporting reasons.
- Prepare a final report with an annex for each of the 3 countries.

Timing:

The total consultancy will not to exceed thirty (30) working days and should be conducted as soon as possible.

Provisional deadline date	Activity	Duration
Day 1	Travel to BKK.	1 day
Day 2	Briefing meeting with RFLP management Travel to RFLP location in Viet Nam.	1 day
Day 3 – 9	Conduct field visits and interview key stakeholder individuals, groups etc. of government, NGO and community organizations and fishers. Briefing of the implementing agency of preliminary findings and recommendations.	7 days
Day 10	Travel to Cambodia and on to RFLP location.	1 day
Day 11 -17	Conduct field visits and interview key stakeholder individuals, groups etc. of government, NGO and community organizations and fishers. Return to capital city in Phnom Penh. Briefing of the implementing agency of preliminary findings and recommendations.	7 days
Day 18	Travel to Sri Lanka and on to RFLP location.	1 day
Day 19 – 25	Conduct field visits and interview key stakeholder individuals, groups etc. of government, NGO and community organizations and fishers. Return to Colombo. Briefing of the implementing agency of preliminary findings and recommendations.	7 days
Day 26 - 28	Prepare and submit draft report and PowerPoint presentations.	3 days
Day 29	Return to home base	1 day
Day 30	Finalize and submit the final report and PowerPoint presentations in response to RFLP management feedback.	1 day
TOTAL 30 days		

Experience and qualifications

The consultant will ideally have a higher university degree in a field relevant to the project; demonstrated knowledge and experience in marine fisheries, livelihoods diversification, environmental sciences or sustainable management of natural resources; expertise in the design of monitoring and evaluation frameworks as well as management information systems for resource management projects. The consultant should also be familiar with international best practices in monitoring and evaluation. He/she will be able to demonstrate his/her ability to work successfully across cultures. Experience with the above RFLP countries will be viewed favourably.

ANNEX 2: ITINERARY

Date	Location	Activities
23.11.09	Bangkok	Briefing with RFLP
2.12.09 – 8.12.09	Vietnam, Hué, Quang Tri	Field work
10.12.09 -12.12.09	Phnom Penh	Report writing
13.12.09 – 20.12.09	Sri Lanka	Field work
21.12.09	Bangkok	Debriefing with RFLP
22.12.09	Phnom Penh	Report writing
27.12.09 – 29.12.09	Phnom Penh	Report writing
4.1.10	Phnom Penh	Meeting RFLP staff, FiA
5.1.10 – 17.1.10	Kampon Som, Kampot, Koh Kong	Field work and report writing
26.1.10 – 29.1.10	Sihanoukville	Inception workshop
1.2.09 – 5.2.09	Phnom Penh	Report writing

ANNEX 3: PRINCIPLE RESOURCE PERSONS

Vietnam	Sri Lanka	Cambodia
Nguyen Hai Phong, Lecturer, Nha Trang University	Patrick T. Evans, FAO Representative	Dr. Nao Thuok, Director General Fisheries Administration
Nguyen Quang Vinh Binh, Director DECAFIREP, T.T.Hué	Simon Diffey, CTA, FAO Restoration and Improvement of Fish Landing Centers	Kaing Khim, Deputy Director General Fisheries Administration
Pham Trong Yen, Deputy Director, DECAFIREP Hanoi	Palitha Muthukude, FAO Restoration and Improvement of Fish Landing Centres	Thay Somony, National Project Coordinator RFLP Cambodia
Chu Tien Vinh, Director General DECAFIREP Hanoi	Kurupparachchi Premalal Assistant FAO Representative	Yos Chantana, Deputy Director, Marine Fisheries Research Institute
Massimo Sarti, CTA, Integrated Management of Lagoon Activities (IMOLA) Project, FAO/UN	A. Hettiarachchi Ecosystems and Livelihoods Group Asia The World Conservation Union (IUCN)	Dr. Em Puthy Deputy Director of Planning, Finance and International Cooperation Department Fisheries Administration
Baku Takahashi Operations Coordinator Integrated Management of Lagoon Activities (IMOLA) Project, FAO/UN	Nishan.Dissanayake, Communication and M&E officer RFLP Sri Lanka	Nom Sophearith, Communication and M&E officer RFLP Cambodia