

**NATIONAL REPORT ON CURRENT
FISHERIES AND AQUACULTURE
POLICIES RELEVANT TO THE
REGIONAL FISHERIES
LIVELIHOOD PROGRAMME
(RFLP) OUTPUTS**

Claude Fernando

June 2010

Table of Contents

LIST OF ABBREVIATIONS AND ACRONYMS	iii
Preface.....	iv
Executive Summary.....	1
1. SUMMARY PROFILE OF THE FISHERIES AND THE AQUACULTURE SECTOR IN SRI LANKA.....	2
2. OVERVIEW OF THE CURRENT STATUS OF NATIONAL AND LOCAL GOVERNMENT POLICIES AND THEIR RELEVANCE TO THE REGIONAL FISHERIES LIVELIHOODS PROGRAMME (RFLP) OUTPUTS.	4
2.1 The Correlation between Sectoral Policies and RFLP Outputs.....	4
2.2 Sectoral Policies of relevance to RFLP Outputs.....	8
2.3 Other Sectoral Policies.....	16
2.4 Non-Sectoral Policies Relevant to RFLP Outputs.....	17
2.5 Local Level Policies affecting Fisheries and Aquaculture	19
3. CURRENT STATUS OF INTERNATIONAL POLICIES AND THEIR LIKELY IMPACT ON RFLP OUTPUTS.	20
3.1 FAO's Code of Conduct for Responsible Fisheries (CCRF).....	20
3.2 Fish Quality Aspects.....	21
3.3 Convention on Biological Diversity	22
4. POLICY DECISIONS MADE WITHIN AND OUTSIDE THE FISHERIES SECTOR THAT HAVE AFFECTED LIVELIHOOD OUTCOMES.....	23
4.1 Important Policy Changes.....	23
4.2 Fishing Restrictions	24
5. REFINEMENT OF EXISTING POLICIES TO STIMULATE THE ACHIEVEMENT OF RFLP OUTPUTS.	27
<i>MATRIX B</i>	29
<i>ATTACHMENT 1</i>	31
<i>ATTACHMENT II</i>	32
<i>ATTACHMENT III</i>	33

This publication has been made with the financial support of the Spanish Agency of International Cooperation for Development (AECID) through an FAO trust-fund project, the Regional Fisheries Livelihoods Programme (RFLP) for South and Southeast Asia. The content of this publication does not necessarily reflect the opinion of FAO, AECID, or RFLP.

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to:

Chief, Electronic Publishing Policy and Support Branch
Communication Division, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy
or by e-mail to: copyright@fao.org

© FAO 2010

LIST OF ABBREVIATIONS AND ACRONYMS

APFIC	Asia Pacific Fisheries Council
BOBP IGO	Bay of Bengal Fisheries Programme's Inter-Governmental Organization
BOBLME	Bay of Bengal Large Marine Ecosystems
CCD	Coast Conservation Department
CCRF	Code of Conduct for Responsible Fisheries
CFC	Ceylon Fisheries Corporation
CFHC	Ceylon Fishery Harbours Corporation
CZMP	Coastal Zone Management Plan
CBO	Community Based Organization
DCS	Decompression Sickness
DFAR	Department of Fisheries and Aquatic Resources
DSD	Divisional Secretary Division
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EU	European Union
FRP	Fiber Reinforced Plastic
FLC	Fish Landing Center
FCS	Fisheries Co-operative Societies
IGA	Income Generating Activities
IOMAC	Indian Ocean Marine Affairs Conference
IUCN	International Union for Conservation of Nature
IUU	Illegal Unreported and Unregulated Fishing
MFAR	Ministry of Fisheries and Aquatic Resources
MT	Metric Tons
MPPA	Marine Pollution Prevention Authority
MCRCF	Marine and Coastal Resources Conservation Foundation
MFI	Micro-Finance Institutions
NACA	Network of Aquaculture Centres in Asia
NWP	North Western Province
NINE	National Institute of Fisheries and Nautical Engineering
NARA	National Aquatic Resources Research & Development Agency
NAQDA	National Aquaculture Development Authority
RFLP	Regional Fisheries Livelihoods Programme
PTCRReMP	Post-tsunami Coastal Resources Rehabilitation and Management Project
SAM	Special Area Management

Preface

This country paper on “Current Fisheries and Aquaculture Policies of Relevance to the Regional Fisheries Livelihood Programme (RFLP)” was prepared in accordance with the Terms of Reference set out in a consultancy contract given by the FAO.

The Methodology used in its preparation was the conduct of a literature review in combination with consultations/discussions with a number of persons whose experience and comments were considered useful in understanding some of the issues covered in this paper. The documents reviewed are in Attachment I. The names of those consulted and the organizations/agencies they represent are given in attachment II. The author wishes to acknowledge their kindness in responding to the requests made for their views and comments. However the author wishes to take full responsibility for any errors of commission or omission contained herein.

The author wishes to place on record the advice, assistance and guidance received from Mr. Don Griffiths Senior Technical Advisor Regional Fisheries Livelihoods Programme and the RFLP National Project Coordinator and the Monitoring and Evaluation Officer in Sri Lanka. Assistance received from the FAO Representation Office in Colombo is also thankfully acknowledged.

Claude Fernando
06th July 2010, Colombo

Executive Summary

Sri Lanka's Fisheries and Aquaculture sector is of high importance in the national economy. Of three sub-sectors, the coastal sub-sector makes the highest contribution to production and employment while the offshore sub-sector is currently the fastest developing sub-sector. Though aquaculture and inland fisheries has considerable potential this sub-sector is still quite undeveloped.

The current sector policies of Sri Lanka in fisheries and aquaculture are contained in the *Mahinda Chinthanaya* and the Ten Year Development Plan (RFLP). These policies have a close correlation with all six outputs of the Regional Fisheries Livelihood Project with a number of policy measures and strategies positively impinging on these outputs being already under implementation or being under consideration by the fisheries authorities. Other non-fisheries policies of significant relevance to the RFLP outputs are contained in the Coastal Zone Management Plan.

Among the non-sectoral policies impacting on RFLP Outputs are the National Environment Policy and Strategy, Green Lanka Programme, National Forestry Plan and the National Oil Spill Contingency Plan. Sri Lanka's responses to some of the international policy measures contained in the FAO's Code of Conduct for Responsible Fisheries, the European Community's Fish Quality Standard and Requirements, Bio-Diversity Convention have also resulted in several national initiatives which turned out to be supportive of several RFLP Outputs. There are however no local or provincial level policies on fisheries and aquaculture worthy of mention.

Sri Lanka's fisheries and aquaculture policies have generally been quite consistent over the years primarily because the two major parties are generally agreed on major issues concerning the sector. Some of the few exceptions were in regard to state assistance for inland fisheries and aquaculture and regarding the management of harbours. Successive governments have made heavy use of subsidies as a tool for developing fisheries but the Ministry of Fisheries has gradually been forced give it up due to government's acute financial constraints.

Sri Lanka has in recent times used provisions in the Fisheries Act to regulate fishing activities by restricting the harvesting of certain species or by restricting the use of specific gears or methods. Virtually all these were in respect of small scale coastal inshore fisheries.

There are a number of new strategies and measures which can be implemented within the existing broad policy framework to stimulate achievement of RFLP outputs. There some other existing policies which can be fine tuned for the same purpose. All these require the close interaction of RFLP with the fisheries authorities as well as the fishing communities and other stakeholders.

1. SUMMARY PROFILE OF THE FISHERIES AND THE AQUACULTURE SECTOR IN SRI LANKA

Significance of the Fisheries Sector in the Economy

1. The Fisheries and Aquaculture Sector is of high social and economic importance because:

- The fisheries and aquaculture sector contributes around 70% of the animal protein consumed in the country (*Food Balance Sheet: Department of Census and Statistics*).
- Fisheries and aquaculture constitute an important livelihood for the people living in the coastal belt, and around irrigation tanks and reservoirs and currently provides direct and indirect employment to about 475,000 persons while fishing and fishing related livelihoods in the sector are estimated to be around 2.5 million.
- The sector has also emerged as a dynamic export oriented sector providing considerable foreign exchange earnings to the country.

Fisheries Sub-Sectors

2. There are three main sub-sectors within the fisheries sector namely:

Coastal Fisheries (those fisheries taking place within the continental shelf and undertaken by the fishing craft in single day operations) continue to be the dominant sub-sector in terms of its contribution to production and employment.

Offshore/High Seas Fisheries (those which take place outside the continental shelf and beyond extending up to the edge of the Exclusive Economic Zone and even in the high seas by multi-day boats) has been the fastest growing sub-sector.

Inland Capture Fisheries and Aquaculture. Capture fishing in irrigation tanks and reservoirs is an expanding economic activity that provides cheap animal protein, income and employment for rural people. Aquaculture is still in its infancy and is limited to coastal shrimp culture and the production of fish seed for stocking; farming of food fish in seasonal tanks and ornamental fish for export are also conducted.

The Resource Base

3. The resource base of the sector is briefly as follows:

Sri Lanka has a territorial sea of 21,500 km² and an Exclusive Economic Zone (EEZ) of 517,000 km². The country has a narrow continental shelf with an average width of 22 km. Its extent is 30,000 km² which is 5.8% of the country's ocean area. The last survey of the coastal waters done in 1979-80 (*Nansen Survey*) indicated a possible annual harvestable yield of 250,000 tonnes of fish from the coastal inshore area, while the estimates of the possible annual yield from the rest of the EEZ vary from 90,000 to 150,000 tonnes. Sri Lanka also has extensive freshwater and brackish water resources that sustain viable capture fishing activities. These comprise around 260,000

ha of large irrigation reservoirs (70,850), medium sized irrigation reservoirs (17,004), minor irrigation reservoirs (39,271), seasonal village tanks (100,000), flood lakes (41,049), upland reservoirs/estate tanks (8,097) and Mahaweli river basins (22,670). Opportunities also exist for brackish water aquaculture notably in Puttalam, Batticaloa, and Mullaitivu districts. Coastal aquaculture is now practiced only in Puttalam and Batticaloa districts.

Fish Production

4. Sri Lanka's fish production in 2009 was estimated to be 339,730 tonnes from the following sources;

Sub-sector	Quantity (Tonnes)	%
Coastal	180,410	53
Offshore and deep sea	112,760	33
Inland fisheries and aquaculture	46,560	14
Total	339,730	

Fishing Fleet

5. In 2009 Sri Lanka's fishing fleet comprised of 41,454 craft a large component of which is non-mechanized. The details are as follows:

Category of Fishing Craft	Number	% of total
Multi-day boats (Offshore)	2,934	7.1
Inboard single day boats	958	2.3
Outboard motorized FRP craft	17,193	41.5
Motorized traditional craft	2,126	5.1
Non-motorized traditional craft	18,243	44.0
Total	41,454	100.00

In addition there were 975 beach seine (*madel*) units which operate in the near shore area and is quite labour intensive.

Fisheries Management, legislation and institutions

6. The primary policy making body for the sector is the Ministry of Fisheries and Aquatic Resources (MFAR) and the principal implementation arms of the Ministry are the Department of Fisheries for marine capture fisheries, and the National Aquaculture Development Authority (NAQDA) for freshwater capture fisheries and aquaculture. There are other statutory bodies within the sector such as the National Aquatic Resources Agency (NARA) responsible for research, Ceylon Fisheries Corporation (CFC) for marketing, (Ceylon Fishery Harbours Corporation (CFHC) for fishery harbour development and management. The institution which was responsible for training was previously the National Institute of Fisheries and Nautical Engineering (NIFNE), but this was recently transferred out of the Ministry.

7. The Fisheries Aquatic Resources Act No: 2 of 1996 is the principal legal instrument relating to the fisheries sector under which a number of regulations have been framed for the management of fisheries and aquaculture. The regulations are enforced by the fisheries inspectors in the marine capture fisheries sub-sector and the extension

officers of NAQDA in the inland capture fisheries and aquaculture sub-sector.

2. OVERVIEW OF THE CURRENT STATUS OF NATIONAL AND LOCAL GOVERNMENT POLICIES AND THEIR RELEVANCE TO THE REGIONAL FISHERIES LIVELIHOODS PROGRAMME (RFLP) OUTPUTS.

2.1 The Correlation between Sectoral Policies and RFLP Outputs

8. While the overall national fisheries and aquaculture policies of Sri Lanka are contained in the “*Mahinda Chinthanaya*¹ (2005 and its updated version, *Vision for the Future 2010*”) the action path of Sri Lanka’s Fisheries and Aquaculture Sector is guided primarily by the strategies and actions enunciated in the “**Ten Year Development Policy Framework of the Fisheries and Aquatic Resources Sector 2007 – 2016**” (which will hereafter be referred to as the Development Plan). This is a comprehensive plan of action prepared under the aegis of the Fisheries Development component of the *Mahinda Chinthanaya*. These documents taken together can be considered as the current Policy package relating to Fisheries and Aquaculture in Sri Lanka.

9. RFLP is a broad based fisheries programme which focuses on, and targets some of the most critical issues confronting the fisheries and aquaculture sectors of the six countries participating in the RFLP. The major fisheries and aquaculture issues identified during RFLP formulation requiring action were:

- 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;
- Spoilage of aquatic product along the distribution chain and low income for small-scale fishers for their product;
- The vulnerability of poor small-scale fisher communities and their livelihoods;
- Extremely limited supplementary and/or alternative livelihood options, and limited development focus on poor small-scale fisher communities; and,
- Limited access to micro-finance services.

10. It is noteworthy that virtually all RFLP identified issues are also specifically mentioned in Sri Lanka’s Development Plan as some of the major constraints hampering the progress of the fisheries and aquaculture sector. This is expected since the policy measures/strategies included in the Development Plan are closely correlated with the RFLP outputs which were formulated following considerable formal and informal consultation with Government Authorities and other stakeholder organizations in all the countries participating in the Programme.

11. The expected outcome of the RFLP is ‘Strengthened capacity among participating small-scale fishing communities and their supporting institutions towards improved

¹ Mahinda Chinthanaya refers to the National Policy Framework reflecting the political vision of His Excellency Mahinda Rajapakse President of Sri Lanka and is contained in the President’s Election Manifesto in 2005 and updated in 2010.

livelihoods and sustainable fisheries resources management' and this outcome is to be realized through the following six 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;
- Strengthened and diversified income opportunities for fisher families;
- Facilitated access to micro-finance 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.

12. Sri Lanka's Ten Year Fisheries and Aquaculture Development Plan prepared within the overall policy framework of the *Mahinda Chinthanaya* has articulated fisheries and aquaculture sector development objectives as follows:

1. To improve the nutritional status and food security of the people by increasing the national fish production;
2. To minimize post-harvest losses and improve quality and safety of fish products to acceptable standards;
3. To increase employment opportunities in fisheries and related industries and improve the socio-economic status of the fisher community;
4. To increase foreign exchange earnings from fish products; and,
5. To conserve the coastal and aquatic environment,

13. As shown in **Matrix A** presented below there is a close correlation between RFPL outputs and the policies/strategies/actions identified in the *Mahinda Chintanaya* and the Development Plan designed to achieve the Sector Development Objectives. The current status of the sector policies and strategies relevant to RFLP outputs is discussed in the following paragraphs

MATRIX A

CORRELATION BETWEEN RFLP OUTPUTS AND SRI LANKAN FISHERIES AND AQUACULTURE POLICIES AND STRATEGIES

	<i>Mahinda Chinthanaya (2005, 2010)</i>	<i>Policy Measures in the Development Plan which relate to RFLP outputs</i>
1. Co-management mechanisms for sustainable utilization of fishery resources;	<ul style="list-style-type: none"> - New technologies will be introduced; - Larger vessels will be built for offshore/ deep sea fishing; - Better scientific information will be obtained on resources; - The coastal guard will be strengthened further to protect Sri Lanka's ocean resources; - Introduce Multi-day vessels on concessionary terms; and, - Measures will be taken to curb the use of destructive fishing methods. 	<p>Policy measures mentioned in the Development Plan which relate to RFLP Output 1 include:</p> <ul style="list-style-type: none"> - Conduct of a comprehensive marine fish resource survey on selected fisheries; - Implement a co-management programme under the principle of "responsible fishing"; - Formulate a fleet development plan; - Implement community based fisheries management in perennial reservoirs; - Promote co-management of fisheries through participatory management plans; - Improve the fisheries management framework by amending and updating fisheries laws and regulations; - Create awareness on the need for fisheries management practices; - Reduce pressure on coastal fisheries by diverting excess pressure to under-exploited areas; and. - Strengthen Community Based Organizations such as fisheries co- operative organizations to play an active role in management.
2. Measures to improve safety and reduce vulnerability for fisher communities;	<ul style="list-style-type: none"> - Fuel concession (subsidy) will be provided to small fishers; - Fishery harbours, anchorages, boat yards and fishery crafts centres will be developed; and, - Fishing nets/gear/craft lost or destroyed through natural disasters and houses will be replaced on an urgent basis. 	<p>Policy measures mentioned in the Development Plan which relate to RFLP Output 2 include:</p> <ul style="list-style-type: none"> - Set up 10 model fishing villages replete with amenities and facilities; - Conduct vulnerability and risk assessment in the coastal areas; - Establish early warning systems on coastal hazards and formulate response strategy; and, - Introduce better designs of boats for high seas fishing with better storage, safety and communication facilities and specify guidelines for their production.
3. Measures for improved quality of fishery products and market chains;	<ul style="list-style-type: none"> - Cold Rooms will be built for fish preservation; - Mother Ships will be operated to bring fish ashore without delay; and, - Fish processing and canning facilities will be set up. 	<p>Policy measures mentioned in the Development Plan which relate to RFLP Output 3 include:</p> <ul style="list-style-type: none"> - Introduce refrigeration/fish holds for large coastal boats; - Encourage FRP day boats to carry ice in insulated boxes; - Improve on-board fish handling practices; - Promote cold storage facilities at major landing sites; - Set up a cold chain to cover the preservation and transport of fish; - Provide clean water, paved areas for sorting/washing of fish and facilities for fish storage and effluent disposal at fish landing centers; - Promote the use of stackable and washable fish boxes

	<i>Mahinda Chinthanaya (2005, 2010)</i>	<i>Policy Measures in the Development Plan which relate to RFLP outputs</i>
		for fish transport; - Ensure and promote the use of quality ice and clean water in fish handling/transport; and, - Build awareness on good fish handling/post harvest practices through training, demonstrations and incentives.
4. Strengthened and diversified income opportunities for fisher families;	- Develop traditional fish processing; - Develop fresh water fishing in new rehabilitated tanks, reservoirs and ponds; 150 brackish and fresh water prawn farms in 10 zones; and, - Breeding of ornamental fish. The government will intervene in securing new technology, information and incentives to our small and medium scale ornamental fish breeders.	- Introduce improved techniques for curing/drying of fish; - Promote economic uses for fish offal and waste; - Resurrect/develop traditional fish/curing and preservation primarily for <i>elite</i> urban markets; - Strengthen CBOs to organize and support income generating activities; - Strengthen women's groups in fishing communities; and, - Introduce alternative livelihoods to reduce pressure on the coastal environment. - Provide requisite amenities and facilities conducive to livelihood development and better quality of life of the fishers;
5. Facilitated access to micro-finance services for fishers, processors and vendors;	- Loan Scheme for multi-day boats; and, - Operation of mother ships.	- Arrange for channeling of development oriented credit facilities through banking/financial institutions.
6. Regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management.	Not specifically mentioned.	Not specifically mentioned.

2.2 Sectoral Policies of relevance to RFLP Outputs

14. The current status of Sri Lanka's Fisheries and Aquaculture sector policies and strategies relevant to the RFLP outputs is discussed in paragraphs 15 to 49 below:

RFLP output 1: Co-management mechanisms for sustainable utilization of fishery resources

15. Co-management of fisheries and aquaculture has been highlighted in the policy measures incorporated within the Development Plan and has been accepted as the best solution to the existing weak management of fisheries and aquatic resources. The Development Plan while affirming the need for fisheries management states that *"there is an urgent need to promote co-management; this is a long process and requires awareness building and community empowerment and strengthening of community based organizations particularly the fisheries co-operative organizations"*. The strategies spelt out in the Development Plan concerning management include *"Promoting co-management of fisheries through participatory management plans"* and the *"Strengthening of Community Based Organizations i.e. fisheries co-operative organizations to play an active role in management"*. This applies equally to marine fisheries as well as aquaculture. The two major development projects currently under implementation in the sector namely the IFAD assisted PTCRRMP in marine fisheries and the ADB assisted Aquatic Resources Development and Quality Improvement Project both contain components to support community based management in these two sub-sectors.

16. Despite the existence of legal provisions which could support a fisheries management regime, fisheries management in Sri Lanka particularly marine fisheries management, has hitherto been largely ineffective. This has been largely due to the government's overwhelming emphasis on increasing fish production. As such, fisheries management has received less attention in development policies and plans than it deserves. Furthermore where issues like fishing over-capacity, depletion or destruction of resources or user resource conflicts have been tackled, the fisheries authorities have always used a top-down approach to try and enforce regulation. Section 4 details some of the measures the Department of Fisheries has used to deal with fish resource depletion, over-capacity, resource user conflicts, etc.

17. However having recognized shortcomings, legal provision was made to draft the principal legal instrument for fisheries and aquaculture viz. the Fisheries and Aquatic Resources Act No: 2 of 1996 and to involve fishing communities in fisheries management. The relevant sections in the Fisheries and Aquatic Resources Act are as follows:

- Section 31 under which the Minister may designate a prescribed area as a fisheries management area and establish for that area a fisheries management authority which can make recommendations to the Minister on management issues and the required measures to deal with them.
- Section 32 under which registered fishermen, resident or migrant, engaged in fishing in a particular area may form themselves into management committees for formulating fisheries programmes, for assisting members to obtain fishing inputs, and to carry out social

infrastructure and welfare activities to improve the living standard of the fishing committee in the area etc.

18. The experience in both marine and inland capture fisheries in the past has shown that these provisions are inadequate for the effective co-management of fisheries. One key deficiency is that membership of the management committees is limited to fishers. In view of the complexity of fisheries and particularly because of the involvement of a multiplicity of other stakeholders (fish vendors, processors, suppliers of outputs, government agencies/officials and CBO/NGOs), it is considered necessary that the composition of fisheries management committees is as broad based as possible to ensure the effective functioning of these committees. (This has also been the experience of the SAMP committees). **Hence Sections 32 and 33 of the Fisheries Act need to be amended to ensure broad based membership of management committees.**

19. The Development Plan states that co-management is “*a long process and requires awareness building and community empowerment and strengthening of community based organizations particularly the fisheries co-operative organizations*”. This is now being done simultaneously in the marine and aquaculture sectors under the IFAD and ADB projects already mentioned. In addition, the work done hitherto done through the SAM process and other projects like the ADB Coastal Resources Management Project have created an awareness on community based management of fisheries, generated considerable interest and also built a number of grass root level organizations which have demonstrated the future potential of co-management of fisheries. This is a good foundation and the Department of Fisheries and Aquaculture Resources (DFAR) and NAQDA should make use of the experience as well the presence of existing development projects **to further expand awareness building and to strengthen organizational institutions required for co-management.**

20. In addition to the management of fisheries resources, co-management will also be of immense use in ensuring the proper utilization of fisheries infrastructure facilities. The Development Plan itself seeks to “*involve stakeholders in the establishment and operation of infrastructure facilities such asminor fish landing centers*”. In fact one of the objectives of the ongoing CIDA assisted Project for the Restoration and Improvement of Fish Landing Centers (IFLC - GCP/SRL/057/CAN) is “*Development and Implementation of an Institutional Framework for Community Participation in Fisheries Livelihood Co-management*”. Its activities include stakeholder analysis to involve CBOs in the utilization of FLC facilities, proposing an asset co-management system for sustainable management of FLC, and ensuring that end users including women and marginalized groups are fully represented in the management structure. **RFLP need to work closely work with the IFLC to prevent overlap and inefficiencies and to promote synergies.**

21. Almost all past attempts at co-management were project-related and the work was limited to the life of the project. Hence to make co-management sustainable it is necessary to institutionalize co-management processes within the Fisheries Department and NAQDA programmers and **ideally for the Department and NAQDA to formally establish Co-Management Units within their institutional structures.** There is already such a unit within DFAR set up as an interim measure to

facilitate the **implementation of the** Project for Capacity Enhancement of NARA (CENARA) GCP/SRL/054/CAN.

RFLP output 2: Measures to improve safety and reduce vulnerability for fisher communities

22. Sri Lanka has a large population dependent on fisheries and aquaculture both in the coastal belt and in the hinterland areas, and the socio-economic well being and the welfare of the fishing communities has always been considered a high priority. Thus the Department of Fisheries from its inception had a Socio-Economic Unit which attended to the welfare of the fishing communities and in 1978 this was upgraded to a Welfare Division within the Ministry (now called the Social Development Division). In addition to assisting the fishing communities in their needs relating to housing, roads, drinking water etc. the Department has also taken measures to ensure the safety of fishers and to provide them relief following accidents or mishaps related to fishing. One of the earliest support measures provides monetary compensation to fishers for injury or death caused by accidents at sea. **The enactment of the Fishermen's Pension and Social Security Scheme Act of 2000 by the government of Sri Lanka is another important measure related to fisher welfare.**

23. Recently, the emphasis on the safety has moved from mere payment of compensation to proactive approaches designed to prevent accidents and mishaps to boats and crews. One weakness of the Development Plan is that it treats boat and crew safety as being merely a boat design improvement issue. It refers to the introduction of *“better designs of boats equipped for high seas fishing with better storage, safety and communication facilities and specific guidelines for their production”*. Perhaps one reason for insufficient focus on safety is that accidents are underreported and documented and therefore the need for improving boats and crew safety is insufficiently highlighted. **This deficiency can be addressed by the establishment of an improved system for reporting and analyzing accidents at sea resulting in injury and loss of life.**

24. At present Sri Lankan fishing boats do not carry on-board safety devices with the exception of SSB Radios and Satellite Navigators fitted on larger multi-day boats. However, recently the Department of Fisheries and Aquatic Resources has made it compulsory for the boats to carry at least basic safety devices including life jackets by the enactment of the Local Fishing Boats (Life Jackets) Regulation, 2008. This requires boat owners to ensure that life jackets are carried on boats and arrangements are made for their use when required. The Department has also started issuing life jackets to the operators of small boats as a promotional/demonstration measure. **However it is necessary that the Department follows up and ensures enforcement of the regulation and creates awareness on the benefits of safety at sea.**

25. Another important measure on safety was taken with the promulgation of regulations under the Fisheries Act entitled the “Fishing Boat Safety (Design, Construction and Equipment) Regulations, 2009” which apply primarily to the construction of large new fishing boats. However, more work needs to be done to ensure effectively implementation including drafting and dissemination of a manual which is understandable by fishers. **This needs to be completed and the information disseminated in a simple format in local languages.** The promulgation

of these Regulations was immediately preceded by an Italian Co-operation project (OSRO/SRL/505/ITA) which created awareness on boat safety and provided training and technical assistance on improving boat construction standards. **This project provided several constructive suggestions on vessel safety which should be implemented on a priority basis.**

26. Fishing is a high risk activity, with fishers exposed almost on a daily basis to rough weather/sea conditions, uncertain fishing grounds, and fluctuating input and fish prices which are beyond their control. Measures taken to reduce vulnerability include dissemination of daily weather/sea condition information news bulletin for fishers. An important policy laid down in the *Mahinda Chinthanaya* provides a fuel subsidy² to small-scale fishers. The Ceylon Fisheries Corporation is also attempting to stabilize fish prices and cushion the adverse impacts of price fluctuations. The uncertainty of locating productive fishing grounds wastes both time and fuel. **The National Aquatic Resources Agency (NARA) should disseminate available information on productive fishing grounds in fishing chart format to fishers.**

27. The DFAR operates a Radio Unit from Colombo, with sub-units in most coastal districts. It networks with larger fishing boats by SSB radio and is useful for accident reporting at sea and arranging sea rescue operations when necessary. **Rescue of fishers in distress is an expensive operation and MFAR should coordinate fully with the Department of Coast Guard /Navy/Air force for this purpose.**

28. Para 55 and the box 2.2 following it pinpoint the high vulnerability of marine, brackish water and inland fishers at some of the Puttalam project sites to the predicted impacts of climate change. Reducing this vulnerability is a formidable challenge for the Department of Fisheries and provides an opportunity for RFLP to **collaborate with DFAR and other agencies in developing ways and means to reduce vulnerability to climate change impacts.**

29. The navigation skills required to ensure the safety of vessels and crews has previously been discussed, but no concrete action has been taken. Many multi-day boat skippers lack the skills required to navigate larger vessels. **It should be made compulsory for all skippers of multi-day boats to undergo training and certification, before vessels can be licensed.**

30. Resource surveys conducted by the CENARA project have identified that some scuba divers harvesting sea cucumber, chank (*Tubinella pyrum*), marine aquarium fish and lobsters suffer decompression sickness (DCS) leading to paralysis and fatalities. Most scuba diving fishers are unaware of the dangers of DCS, and are ignorant of who to contact and how to obtain treatment in a DCS emergency. **DFAR/RFLP can work collaboratively with other concerned parties to remedy this situation.**

² RFLP and FAO has concerns with fuel subsidies because it can lead to continued fishing under uneconomic conditions, over-fishing and unsustainable fisheries.

RFLP output 3: Measures for improving quality of fishery products and market chains.

31 This RFLP output is directly linked to the third policy objective of the Development Plan i.e. *“To minimize post-harvest losses and improve quality and safety of fish products to acceptable standards”*. The government policy prioritizes increasing the per-capita supply of fish from local fish production, ensuring that fish is distributed equitably in all areas of the country and ensuring that the local consumers are enabled to access quality fish and fish products at affordable prices.

32. As is mentioned in section 3.2 (para 69) the quality of fish and aquatic products for export markets is maintained at reasonably high levels. However despite the requisite legal framework, a marked improvement in infrastructure facilities and institutional arrangements, improved consumer awareness of fish quality standards, and improved availability of ice, etc., the quality of locally marketed/consumed fish and fish products is still sub-standard.

33 One priority area which needs scrutiny is the quality of fish on landing. At present on-board handling and processing is poor. The Development Plan states it is necessary to *“Introduce and promote better fish handling on board vessels”*. Under projects like the ADB Coastal Resources Management Project and the Swedish Project training and demonstrations on on-board handling have been conducted. Yet more needs to be done and **DFAR should prepare guidelines for improved on-board catch handling and preservation, and disseminate them to boat operators/crews and support this with pilot demonstrations and further vocational training.**

34. The quality of fish landed depends both on how it is handled and on fishing boat storage design. One important strategy highlighted in the Development Plan is to *“Improve boat designs in order to incorporate better fish holds and equipment for fish preservation and quality assurance”*. The need for proper fish storage facilities on multi-day boats is emphasized because reported post harvest losses can be as high as 30%. The sector policy is to encourage all newly built multi-day boats to include refrigerated holds/refrigerated seawater (RSW) tanks. In addition, smaller day boats will also be encouraged to carry ice in insulated boxes. Initially, the installation of insulated fish holds on multi-day boats was promoted through subsidies. However as the effectiveness of this has been sufficiently demonstrated, the present need is to assist the interested boat operators with incentives. **MFAR/DFAR needs to pursue this by arranging concessionary credit for this purpose.**

35. Small scale coastal and inland fishers are insufficiently aware of aquatic product quality and safety aspects. This requires training of fishers and fish processors/vendors as stated in the Development Plan i.e. *“Build awareness on good fish handling/post harvest practices through training, demonstrations and incentives”*. The on-going project “Fish Handling and Reduced Post-Harvest Losses in Selected Tsunami Affected Communities” (GCP/SRL/054/SPA) is conducting such training programmes, but the **DFAR needs to institutionalize these programmes by including them in the regular programmes of the Quality Control Division.** This has become even more crucial following the transfer of NIFNE which previously conducted such training, outside the fisheries sector.

36 Closely linked to the above is the need to improve fish handling facilities at landing centers. The Development Plan identifies the need to “*Provide improved facilities for sorting/handling/packing of fish at landing centers*”. The FAO/IFLC Project is currently establishing facilities including clean water, paved areas for cleaning/sorting of fish, and disposal of waste/effluent needed to meet food safety requirements in fish markets. The food safety requirements in fish markets are set out in the Regulations on the Handling and Distribution of Fish and their enforcement is the responsibility of the Public Health Inspectors attached to the local government bodies. However enforcement is weak, so the GCP/SRL/054/SPA project is improving this situation through training etc. Furthermore the bulk of the retail fish markets are sited at temporary wayside structures, which the vendors do not own or have tenure security over. The vendors therefore have no incentive to invest in improving facilities to meet the desired hygiene standards. **DFAR should collaborate with local authorities and organizations to ensure the enforcement of food hygiene and safety regulations at fish markets and landing centers.**

37. An important government policy is to ensure that fish is distributed equitably to all areas of the country. This requires better storage and improved transportation of fish. The government also wants to ensure that domestically available fish for local consumers is safe and wholesome for human consumption. To this end Mahinda Chinthanaya aims to “*Establish a cold chain covering fishery harbours/anchorages and fish transport*”. This will be done by providing incentives to the private sector and by better use of existing facilities at harbours and landing sites. An important strategy to facilitate better transportation in the Development Plan is the use of “*hygienic and stackable boxes for fish storage & transport*”. **The use of these boxes should be promoted through some an incentive scheme** as has already been successfully done with fruit and vegetables.

RFLP output 4: Strengthened and diversified income opportunities for fisher families

38. This output is also closely linked to Policy Objective 2 of the Development Plan i.e. “*To increase employment opportunities in fisheries and related industries and improve the socio-economic status of the fisher community*”. Given the resource situation in the coastal fishery, the potential to increase employment in coastal fishing is limited. Hence it is necessary to promote non-fisheries livelihoods both as a means of reducing fishing pressure on resources and to facilitate increased family income. The Development Plan refers merely to the development of aquaculture activities and promoting traditional fish processing. Hence there is a **need to conduct a broad based analysis of opportunities and possibilities, to identify the most technically, financially, environmentally and socially feasible activities, and to demonstrate viable options.**

39. Community based organizations, and particularly fisheries co-operative societies and women’s groups are among the best placed and suited to provide the leadership and organization when implementing new livelihood options in fisher communities. The strengthening of these organizations is a stated strategy of the Development Plan. This must be pursued by providing **women’s groups and fisheries co-operative societies (FCSs) the requisite training on topics such as savings mobilization,**

investment, enterprise management/business planning and marketing. This is also consistent with the sector's sensitivity and concern for gender.

40. Though the participation of women in capture fishing activities in Sri Lanka is negligible, the women of fisher households conduct a multitude of supporting activities the foremost among these being financial management i.e. the handling of income from fishing, meeting loan commitments, and purchasing fishery inputs on a day-to-day or fishing trip basis. In addition women are also involved in the curing, processing or marketing of fish and/or other tasks such as the mending of nets. Sri Lanka has prioritized gender equality, and gender considerations are included in development programmes, particularly in capacity building, project implementation and monitoring. The Development Plan's strategies for income generating activities (IGAs) include the strengthening of "Women's Groups in fishing communities". It is noteworthy that a specific gender component is included in the IFAD PTCRRReMP. It will ensure that women actively participate in decision making on the selection of beneficiaries, and activity monitoring, etc. Funds have also been set apart exclusively to support women's activities.

41. In the Development Plan, aquaculture and traditional methods of fish curing are proposed as the two areas with the most potential for the promotion of new income generation activities. However specific aquaculture activities and traditional fish curing/processing activities need to be identified which are suited to the specific sites. A further requirement will be a thorough investigation of product marketing and the need to develop market linkages before commencing new AIG projects. **The example of the two projects implemented in Puttalam by the IUCN and MCRCF deserve to be emulated.**

Two interesting income diversification projects in Puttalam (Box 1)

IUCN - "Project for Ecologically and Socio-Economically Sound Coastal Ecosystem Rehabilitation in the Puttalam District"

- **The livelihoods promoted and reported to have been successful were aloe vera cultivation, home gardening, crab fattening and poultry rearing, garment sewing, and the production of cloth bags;**
- **The project demonstrated to fishers the possibility of diversifying their incomes through home gardening/cultivation, thus obviating the need to depend exclusively on fishing;**
- **Established a revolving fund to expand women's income activities.**

Marine and Coastal Resource Conservation Foundation (MCRCF)

- **The livelihoods introduced were aloe vera cultivation, seaweed cultivation, red tilapia pond culture, seabass cage culture, and home gardening;**
- **PADI licenses were provided for divers in the area and ornamental fish farming was promoted.**

42. **There are important lessons to be learnt from the above two programmes which will benefit future alternative livelihood development initiatives in the sector.** These include the importance of building proper community relationships, respect for indigenous knowledge, beneficiary selection with community involvement and transparency, being sensitive to the traditions and needs of the different ethnic/religious groups, the need to provide start up assistance, insisting on community contribution, and establishing effective market linkages. Another significant factor that contributed to the success was that all the activities promoted by the two projects were based on the specific materials/resources available in the local area.

43. It would be useful to **establish a unit within the Ministry to guide, monitor and supervise income generating/diversification programmes** carried out within the fisheries and the aquaculture sector. It should be possible to obtain IFAD's PTCCRReMP, FAO's Fish Landing Site project and RFLP support since all have a direct stake in the success of such activities, as well as the expertise required.

RFLP output 5: Facilitated access to micro-finance services for fishers

44. A crucial gap in the Development Plan is its failure to adequately address the credit needs of the fisheries sector. Lack of credit facilities has been a major factor drag on development progress in the sector. The reluctance of commercial banks to lend to the fisheries sector in general and to small-scale fishers in particular is well documented. This reluctance is due to previous experience and poor recovery rates for funds lent to the fisheries sector. Reasons for this include improper borrower selection, inadequate pre-sanction appraisal, and the implementation of credit schemes in combination with government subsidies.

45. The Development Plan states that investment in the small-scale sector have suffered from a lack of development oriented credit schemes which resulted in low incomes and persistent indebtedness. Despite Sri Lanka's attempts to develop diversified micro-finance systems for the rural poor, small-scale farmers and fishers in particular still rely heavily on private moneylenders and other informal credit sources and lack access to the financial services provided by formal banks/financial institutions. The Development Plan advocates the need "*to arrange for channeling development oriented credit facilities through banking/financial institutions*". One important response to this is the establishment of the "*Diyawara Saviya Micro-Enterprise Credit Scheme*" by the IFAD funded PTCRRReMP which will assist fisheries as well as non-fisheries livelihood activities. The success of this will contribute towards promoting micro-enterprises required for creating alternative livelihoods for fishing communities. The fisheries sector contains a network of *Diyawara* Banks, which are the better functioning fisheries co-operative societies upgraded to rural bank status and Fisheries Co-operative Societies. In addition, there are active women's groups supporting fishers and fish farmers. **These organizations need to be strengthened by training provision and linkage promotion with financial institutions, to meet some of the micro-finance needs of fishers.**

46. Micro-finance institutions (MFIs) including government and private banks, cooperatives, non-government organizations in many countries in the region are incorporating new features and pilot-testing innovative micro-finance schemes to make their products and services more appropriate, attractive, affordable and accessible to the rural poor. **Sri Lanka's fisheries sector can benefit from these experiences and RFLP should assist MFAR/DFAR/NAQDA to learn from regional MFI experiences.**

47. There is no cohesive regulatory and supervisory structure that encompasses all MFIs. In addition most NGOs engaged in micro-finance service provision are neither regulated nor supervised, although most of them mobilize savings/deposits from the public. This is now being remedied. A Department for Development Finance has been established by the Ministry of Finance to regulate and stabilize the micro-finance sector. In addition the Central Bank (2009) is setting up an independent authority for the regulation and supervision of micro-finance institutions. The fisheries sector should also **set up a unit in collaboration with DFAR/NAQDA and the Central Bank to coordinate and assist these programmes and ensure the success of the micro-finance services within the sector.**

RFLP output 6: Regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management

48. It is noteworthy that Sri Lanka has actively participated in almost every regional fisheries programme and project of any importance and is a signatory to almost all the important international agreements on fisheries and aquaculture. As such Sri Lanka works in close conformity with international/regional bodies and strives to comply with the policies and practices relating to fisheries and aquaculture. Furthermore, livelihood development particularly among the small-scale fishers and fish farmers is an avowed policy objective of Sri Lanka, and Sri Lanka welcomes the sharing of experience with the countries of the region on fisheries livelihood development. Sri Lanka stands to gain considerable benefit by an exchange of information and exposure which will materialize through RFLP and the networks that it is developing.

49. The other regional programmes in which Sri Lanka's fisheries sector is involved besides RFLP are the Bay of Bengal Inter-Governmental Organization (BOBP IGO), the Bay of Bengal Large Marine Eco-Systems Programme (BOBLME), Network of Aquaculture Centers in Asia (NACA), Asia Pacific Fisheries Commission (APFIC), Indian Ocean Marine Affairs Conference (IOMAC) and INFOFISH.

2.3 Other Sectoral Policies

50. An important set of national sector policies affecting fisheries and aquaculture is found in the **Coastal Zone Management Plan (CZMP)** of the Coast Conservation Department (CCD). The CZMP was prepared in 1990 as mandated by the Coast Conservation Act No 57 of 1981; it has since been updated twice in 1997 and in 2004. The 2004 version of the CZMP has two chapters of interest to fisheries and

aquaculture namely Chapter 3 Coastal Habitats, and Chapter 5 on Marine Fisheries and Coastal Aquaculture. Conservation of coastal habitats is crucial for productivity and sustainability of fishing. Estuaries and lagoons, coral reefs, mangroves sea grass beds and salt marshes function as vital breeding grounds for numerous species of fish, crustaceans, mollusks and ornamental fish which are of high commercial value. The strategies set out in the CZMP are complementary to RFLP outputs particularly those concerning co-management and livelihoods.

51. The main strategies included in the CZMP included under fisheries and aquaculture are:

Minimizing harmful fishing practices in selected lagoons/estuaries by mobilizing fishing communities to develop and implement site specific management plans; Identifying fishing communities affected by development activities and natural causes and to initiate programmes to relocate them with minimum adverse impacts on their socio-economic status; Promoting aquaculture development on a planned basis by preparing zonal plans, land use plans and models and guidelines; and, Enhancing the capacity of local communities to engage in sustainable aquaculture that is in harmony with the environment.

52. The main strategies set out in the CZMP under coastal habitats are:

Formulation and enforcement of legislation to minimize/eradicate damage to/destruction of habitats through development activities; Minimizing threats to estuaries/lagoons from solid waste disposal, encroachment and reclamation; Preventing/minimizing through appropriate management practices the over-exploitation of reef organisms such as aquarium fish, lobster, chank and sea cucumber; Promoting sustainable use management of resources in estuaries/lagoons with community participation; and, Formulate and implement guidelines and regulations to minimize damage to mangrove systems.

2.4 Non-Sectoral Policies Relevant to RFLP Outputs

53. One of the most important non-sectoral policies is the **National Environment Policy and Strategy** of the Ministry of Environment and Natural Resources (2003) which has assigned a significant place to fisheries, aquaculture and coastal area management. While there are several policies therein which would indirectly support RFLP objectives at least one of them namely establishment of management mechanisms for sustainable utilization of fishery resources is of direct relevance to RFLP Output 1 i.e. Co-management mechanisms for sustainable utilization of fishery resources. The measures under this policy include:

- Use of co-management mechanisms for sustainable utilization of fishery resources; and,
- Involvement of local communities in the management of coastal and marine resources through a participatory process for the conservation and sustainable use of these resources.

54. In addition there are two other initiatives of interest to the RFLP namely **the Action Plan for the Haritha Lanka (Green Sri Lanka) Programme**. Mission 4 of

this Programme refers to the need for “*measures for sustainable use of the fishery resource through the establishment of close areas and seasons for fishing*” and “*introducing co-management of inland and coastal fisheries to induce those involved in the fishery to adopt responsible fishing practices*”.

55. Predicted sea level rise caused by climate change, looms as a significant future threat to the coastal dwellers, the bulk of whom are fishers. Policies are needed to reduce their vulnerability and to mitigate possible damage. These issues have been addressed in a recent document drafted by the Climate Change Secretariat of the Ministry of Environment in Sri Lanka i.e. **Sector Vulnerability Profile: Agriculture and Fisheries: May 2010** (Still in draft form). The findings of this analysis are of special interest to RFLP, particularly since the vulnerability mapping exercise has revealed high levels of vulnerability in the Puttalam area, which is within the RFLP project area, to the impacts of sea level rise.

Impacts of Sea Level Rise on Fisheries (BOX 2)

The North West Region of the country (Puttalam District) emerges as the area with the highest level of vulnerability to sea level rise on fishing communities.

- **For marine fisheries, Kalpitiya DSD is the most vulnerable area;**
- **For Inland fisheries three of the four DSDs (Arachchikattuwa, Kalpitiya and Vanathavilluwa) emerge as the most highly vulnerable areas in Puttalam district;**
- **For brackish water/lagoon fisheries too, Kalpitiya DSD is highly vulnerable with two other DSDs in Puttalam district (Vanathavillu and Mundalama) being moderately vulnerable.**

56. Fisheries is by far the most important economic activity in the coastal areas of the Puttalam district and despite the alarms set off by the 2004 tsunami and government policies to encourage compliance with the standards of the Coast Conservation Department (CZMP 2007), large numbers of fishers still continue to live on the sea front. **All these offer a formidable challenge to policy makers charged with developing suitable measures to reduce/mitigate climate change connected vulnerabilities.**

57. **Forestry** is a sector which has close interactive impacts on fisheries and aquaculture since wetlands which encompass mangroves fall under natural forests. However one of the gaps in the **National Forestry Policy** (contained in the Sri Lanka Forestry Sector Master Plan July 1995) is that it contains no policies or strategies for the preservation/management of wetlands/mangroves other than a general inclusive statement that “*the natural forests will be allocated firstly for conservation, and secondly for multiple-use production forestry*” (2.3), and “*for the management and protection of natural forests and forest plantations, the state will where appropriate, form partnerships with local people, rural communities and other stakeholders, and introduce appropriate tenurial arrangements*” (2.4). This deficiency is notable in view of the past destruction of large tracts of mangroves and other wetland areas in the North-Western region of Sri Lanka primarily for the development of shrimp

farms. **Hence concerted action is necessary to preserve mangroves.** It is encouraging to note that the **Conservation Management Plan for Ten Selected Mangrove Habitats** South of Colombo, (IUCN 2000) states that a *“a priority area in effective management of mangrove ecosystems is community participation in management and coordination between all relevant sectors and organizations involved in the management of mangrove areas. For this purpose it is important to set up multi-disciplinary mangrove co-ordination committees comprising of state organizations, NGOs, CBOs and other clusters and/or site specific stakeholders”*.

58. National Science and Technology Policy (prepared by the National Science and Technology Commission Ministry of Science and Technology) lists as one of its Policy Objectives the ensuring of sustainable use of natural resources for development while protecting the environment. Referring to conservation and sustainable use of biodiversity, and minerals, marine and other natural resources NATSCO states that *“in the past these natural resources have been exploited for commercial purposes often in an uncontrolled manner, in spite of the existence of reasonably adequate legislation for their sustainable use, and preservation of the environment”*. In this context it highlights the need to *“promote research related to conservation and sustainable use of biodiversity, and minerals, marine and other natural resources”* by *“initiating research programmes on ecosystems and aquatic and terrestrial fauna and flora with special reference to endemic species with a view to conservation and sustainable use within the framework of national development activities”*

National Oil Spill Contingency Plan

59. Prevention and conservation of ocean resources and the protection of the marine and coastal environment from oil pollution is a high priority for Sri Lanka. The Marine Pollution Prevention Authority (MPPA) is the national authority responsible for prevention, control, monitoring, investigation and management of pollution and restoration of damaged environments in Sri Lankan waters. Though there have been 18 oil spills/accidents between 1997 and 2006 in Sri Lankan waters, fortunately none were major. But there is always a possibility and in the event of a major accident there would be serious consequences for the livelihoods of affected communities with fishers being foremost among those affected. Hence the MPPA has prepared the National Oil Spill Contingency Plan which is a policy document with stakeholder organizations, legal provisions, etc.

2.5 Local Level Policies affecting Fisheries and Aquaculture

60. Unlike some RFLP member countries, in Sri Lanka policy formulation is done almost exclusively at the national level with almost no local level fisheries and aquaculture policies. While local government bodies such as Municipal Councils, Urban Councils and Pradeshiya Sabhas do have their own regulations in the form of by-laws etc., to facilitate the functioning and operation of their juristic areas these are formulated strictly in line with national policies. Under the 13th Amendment to the Constitution, Sri Lanka established Provincial Councils for the nine Provinces of the country, with the objective of some power devolution to the provincial level. The functions of the Government and the Provincial Councils are listed in the [Ninth](#)

Schedule to the Constitution, which comprises three lists namely List I - the Provincial Councils List, List II - the Reserved List, and List III - the Concurrent List.

61. Fishing within the territorial waters of Sri Lanka, is one of the subjects included in the Concurrent List. As a result all Provincial Councils have Ministries dealing with fisheries. However, thus far they have worked in close harmony and consultation with the National Ministry and have complemented the national programmes by initiating and implementing certain measures of local interest (such as small infrastructure and welfare oriented work) using the limited financial and manpower resources at their disposal. To date no fisheries and aquaculture policies have been drafted by provincial authorities.

62. The Provincial Environment Act (now under revision) of the North Western Provincial Council (NWPC) was enacted by that Council under the powers granted by the Thirteenth Amendment of the Constitution which created Provincial Councils. Under this Act, brackish water fisheries projects (shrimp farms) larger than 10 acres require environmental clearance from the NWPC. However thereafter, the policies and conditions imposed by the national level agency NAQDA will apply for the approval and the functioning of such projects. The Provincial Fisheries Ministry of the NWP acts as a co-ordinating institution for the management, monitoring and socio-economic aspects of shrimp farming in the NWP.

3. CURRENT STATUS OF INTERNATIONAL POLICIES AND THEIR LIKELY IMPACT ON RFLP OUTPUTS.

63. As stated in paragraph 48 above, Sri Lanka works in close conformity with international/regional agreements and policies relating to fisheries and aquaculture. This is very clearly laid down in the Fisheries Policy (2007) which says Sri Lanka will “*Develop co-operation with regional fishery management organizations and follow international conventions and treaties in management of fisheries in high seas*”.

3.1 FAO’s Code of Conduct for Responsible Fisheries (CCRF)

64. The most obvious set of international policies concerning Fisheries and Aquaculture that will impact on RFLP outputs is contained in the FAOs Code of Conduct for Responsible Fishing. The Code has to be followed for the formulation of development plans and programmes in Sri Lanka. It has been translated into Sinhala and Tamil and disseminated among key stakeholders. Some of the important policies contained in the Code which are of direct relevance to RFLP in Sri Lanka are discussed below:

65. CCRF’s management advice to sovereign states is to “*identify relevant domestic parties having a legitimate interest in the use and management of fisheries resources and establish arrangements for consulting them to gain their collaboration in achieving responsible fisheries*” is of direct relevance to RLFP output on co-management. Sri Lanka has already made some progress on this with the new legal provisions being included in the Fisheries Act and in addition community management has been launched in Negombo, one of the project sites.

66. RFLP's output 2 on *Measures to improve safety and reduce vulnerability for fisher communities* is in line with the CCRF emphasis on the "need for the States to ensure that health and safety standards are adopted for everyone employed in fishing operations and make arrangements individually, together with other States or with the appropriate international organizations to integrate fishing operations into maritime search and rescue systems".

67. CCRF advises that "States should adopt appropriate measures to ensure the right of consumers to safe, wholesome and unadulterated fish and fishery products and that States should establish and maintain effective national safety and quality assurance systems to protect consumer health and prevent commercial fraud". As stated in paragraph 69 this has been given effect through several measures taken by the Ministry of Fisheries and Aquatic Resources.

3.2 Fish Quality Aspects

68. Sri Lanka currently relies heavily on the export of fish and marine products as stated in Objective 4 of the Development Plan which is "To increase foreign exchange earnings from fish products". As such, it is vital that Sri Lanka abides by the strict fish quality and food safety standards set by the importing countries. For this the European Community requirements are of the utmost importance. Since the 1970's the European Council (EC) has adopted many directives and regulations stipulating health requirements for food products imported into the European Unionmarket. Some important examples are given in Box 3.

Significant EU Requirements for Fish Quality and Food Safety (Box 3)

- Directive 91/493/EEC of 22 July 1991 details the health conditions for the production and the placing on the EU market of fishery products;
- Directive 91/67/EEC of 28 January 1991 details the animal health conditions governing the placing on the EU market of aquaculture animals and products;
- Directive 96/23/EC of 29 April 1996 re: measures for monitoring certain substances and residues in live animals/animal products including fishery products and aquaculture products;
- EC Regulation No. 104/2000 of 17 December 1999, details the labeling requirements of aquatic products including species, production method - caught and the catch area. For Sri Lanka this covers Yellowfin tuna (*Thunnus albacares*), Skipjack or stripe-bellied bonito (*Katsuwonus pelamis*), Other species of the genera *Thunnus* and *Euthynnus*, Swordfish (*Xiphias gladius*), Penaeid shrimp and Squid (*Loligo* species); and.
- ECI Regulation No. 178/2002 of 28 January 2002 details the information needed to establish full traceability of food including fish products.

69. Sri Lanka has put in place the institutional arrangements and procedures to comply with international requirements. These include legal provisions made by the Minister under the Fisheries and Aquatic Resources Act, No. 2 of 1996. The most important provision relating to the export of fish and fish products is the Fish Product (Export) Regulation 1998. The Fish Quality Division within the DFAR has been assigned the responsibility for the implementation and enforcement of these.

70. While most of these arrangements directly benefit exporters and large operators they are also becoming more and more relevant to fishing communities since small-scale fishers are now emerging as a potential supplier to export markets. Furthermore local consumers are now better aware of quality aspects and are now demanding improved fish quality. The Ministry/Department of Fisheries has recognized the need to educate and train fisher communities on the ways and means of complying with quality standards and this process is being assisted by “Project for Reduction of Post Harvest Losses.” (GCP/SRL/056/SPA).

71. One other important aspect closely tied with fish quality and fisheries management is the need to combat IUU fishing on which Sri Lanka is beginning to adopt appropriate measures. Proposed measures require mechanized boat operators to maintain log books in a specified form for all undertaken fishing trips and to obtain certification every three months by an authorized officer. It is mandatory that all exporters of fish provide such certification when applying for an export licence.

3.3 Convention on Biological Diversity

72. Sri Lanka became a signatory to the International Convention on Biological Diversity in 1994. Arrangements to comply with the principles and policies are contained in the “Bio-Diversity Conservation in Sri Lanka: A Framework for Action” (1998). This was also considered during the formulation of Fisheries and Aquaculture and Coast Conservation Plans. To date marine sanctuaries/parks have been established in Hikkaduwa, Ruumassala (Galle), Pigeon Island (Trincomalee) and in Bar Reef in Kalpitiya.

73. In the mid-1990s fishing and boating activities were restricted in and around the coral reef in Hikkaduwa on the southern coast of Sri Lanka. This was done because mechanized boats taking large numbers of tourists to visit the area were damaging the coral reef. The hoteliers and those dependent on the coral reef for their livelihood, plus other concerned stakeholders banded themselves together under the aegis of the SAM Committee and managed to get fishing banned in the reef area. One of the benefits of this was that the fishers of Hikkaduwa received a fishery harbour with assistance from an ADB funded project. This is a good example of the integration of tourism and fisheries for the welfare of the coastal inhabitants.

4. POLICY DECISIONS MADE WITHIN AND OUTSIDE THE FISHERIES SECTOR THAT HAVE AFFECTED LIVELIHOOD OUTCOMES

4.1 Important Policy Changes

74. Over the last three decades Sri Lankan fisheries and aquaculture policies have been consistent. This is because the two political parties wielding power have had fundamentally the same fisheries and aquaculture policies, with only some differences in emphasis. There were three notable exceptions.

75. **Inland Fisheries and Aquaculture:** There was a major policy change in 1990, when the government decided to withdraw state support/patronage for inland fisheries and aquaculture ostensibly on religious grounds. This disrupted a sub-sector which was developing rapidly at the time. As a result the Inland Fisheries Division of the Ministry of Fisheries was closed, some government seed production/demonstration centres were privatized and a water body stocking programme was stopped. This undoubtedly had adverse impacts on the livelihoods of the inland fishers as capture from capture reservoir fisheries declined. However there was an unexpected beneficial side effect from this policy change because some of the staff laid off from the Inland Fisheries Division provided effective extension services to the fishers and particularly fish farmers. An organized private sector emerged with a keen interest in aquaculture. The policy change was reversed five years later with the change of government and inland fisheries and aquaculture was again given state focus and support.

76. **Fishery Harbours:** The Ceylon Fishery Harbour Corporation (CFHC) is mandated by Parliament with the responsibility for the development, management and maintenance of fishery harbours. In 1990, a major policy decision that “*CFHC should divest itself of all commercial activities and assets other than the land and marine structures by selling or leasing them to private sector and adopting an “open gate policy”*” was spelled out in the National Fisheries Development Plan 1990/1994. This came as a result of a review by the government prompted by the recurring operational inefficiencies and financial losses incurred by the CFHC which by this time had become a burden on the Treasury. Following this decision, the assets in the harbours were leased out to the private sector and CFHC ceased to be concerned with management of the harbours. The results of the new policy ultimately turned out to be quite disastrous to the industry in terms of the services and facilities available to the harbour users and also led to a very grave deterioration of the assets, services and facilities at almost every harbour in Sri Lanka with the exception of the Mutwal Fishery harbour, the operation of which was unaffected by this policy.

77. **Subsidy:** This was one of the most important policy measures used in Sri Lanka to increase fish production. This policy commenced with the programme for the mechanization of boats in the 1960s and reached its climax by the early 1980s when almost everything from the issue of boats, nets and engines in marine fisheries, and the issue of *orus* (traditional boats) for inland fisheries and pond culture projects was supported with liberal government subsidies. In the coastal fishery this had adverse impacts including creation of over-capacity, reduction in catch per unit effort,

consequently reduced incomes of fishers, and increased indebtedness. Financial difficulties in the 1990's forced the treasury to change policy. The present policy is that subsidies are only provided selectively when required to provide urgent relief (fuel subsidy), or for emergency rehabilitation following natural calamities like tsunamis, or to develop certain specific fisheries or activities. An example of the latter is the installation of fish holds or introducing new boat designs.

78. **Shrimp Farming:** Has been promoted by the government to increase foreign exchange earnings. A number of inducements were provided including allocation of state land for shrimp farm establishment and by extending a number of fiscal incentives. However, despite the benefits, including increased foreign exchange earned, and rural employment in coastal areas, shrimp culture has been beset with problems. These include negative impacts on the livelihoods of marine fishers caused by mangrove destruction, denial access/right of way to their fish landing sites for coastal fishers and the disruption of fishing activities caused by waste effluent discharge and water intake pipes for hatcheries. While shrimp farming continues to be supported by the government, the adverse impacts on the livelihoods of coastal communities including fishers, the environment and other developments within the industry itself, like disease problems, have led to fine tuning of shrimp farm development policies and strategies. These include confining new farms exclusively within pre-determined zones, the need for an environmental assessment where the farm areas exceeds 10 acres, compulsory implementation of "best management practices" to minimize disease outbreaks and preference being given to community managed shrimp farm development.

79. Regarding **User Rights** to water areas it may be mentioned that there is provision under section 38 of the Fisheries and Aquatic Resources Act for the Minister to "*lease such portions of state lands or the Sri Lankan water areas as the Minister may consider necessary in the interest of the national economy for the purpose of aquaculture*". However so far, no such leases have been granted; granting such leases are being considered to promote mariculture.

4.2 Fishing Restrictions

80. Some of the fisheries development and management policies have resulted in a series of restrictions imposed by state authorities on fishing activities for a variety of reasons.

Fishing restrictions imposed for fisheries management purposes

81. Most fishing restrictions have been imposed to address issues connected with over-capacity, fishery resource depletion or resource user conflicts. Such recent restrictions have been imposed through the use of fishing regulations promulgated under Section 62 (1) of the Fisheries and Aquatic Resources Act No: 2 of 1996 which confers on the Minister the power to make orders to prohibit or regulate fishing for a variety of purposes. So far only one regulation namely Fish Landing Regulations 1997 has been promulgated to regulate activities in off shore fisheries and all other regulations are for regulating activities in small scale coastal inshore fisheries.

82. This category includes restrictions relating to certain species and/or those relating to the application of fishing gears and methods.

Fish Species Based Restrictive Policies (Box 4)

Lobster Regulations: Lobster Fisheries Management Regulations, 2000. Gazette No: 1123/2 dated 13.03.2003, and No 1601/36 of 04.05.2009 – These ban the catching of gravid females, lobsters with soft shells and undersized lobsters. In addition lobster fishing is banned in February, September and October when breeding takes place.

Chank (*Tubinella pyrum*) Regulations: Chank Fisheries Management and Export Regulations, July 2003 –prohibit dredging or trawling to harvest chank and stipulate the minimum size of chank that can be taken/sold/transported.

Live Fish Export and Import Regulations – these list prohibited export species and restricted import and export species.

83. Lobster fishing restrictions relate to the harvesting of lobsters below a minimum size, gravid females and capture during the breeding season. Lobster fishing is a seasonal activity, the number of fishers is quite low and lobster fishers do not only fish for lobsters. In multi-species fisheries as practiced in Sri Lanka there is considerable flexibility and fishers can change fishing methods without too much difficulty. The chank fishery and capture of ornamental fish by divers are similarly flexible, so the impact of fishing restrictions for chank and ornamental fish on fisher community' livelihoods is unlikely to be great. Although no empirical studies have been conducted, it is generally believed that fishing restrictions have contributed to stock improvement and therefore fisheries sustainability. All fishing restrictions are of interest in the project area (Puttalam/Kalpitiya), except the restrictions for lobster. The Department of Fisheries is now considering imposing minimum size restrictions for sea cucumber based on the survey findings in the Kalpitiya area by NARA's CENARA project.

84 Some key fishing gear/method restrictions decreed by regulations include:

Fishing Gear/Methods Based Restrictive Policies

(Box 5)

Total ban on the use of dynamite or poisons for fishing;

Beach Seine Regulations of 1984 – Prescribes the places and conditions for beach seine operations;

Fishing Operations Regulations of 1996 – Prohibits push net fishing, harpooning of marine mammals, moxi net fishing operations, and gill nets or trammel net fishing on coral reefs. It also list 17 fishing methods requiring a compulsory licence;

Purse-Seine Net Fishery Regulations. Gazette No. 437/46 dated 19.01.1987, and amended by Gazette No. 859/3 dated 20.02.1995 – this regulates purse seine fishing to certain areas, net lengths, and mesh sizes etc.; and,

Monofilament Nets Prohibition Regulations of July 2006.

85. Dynamite fishing is an old and destructive practice in Sri Lanka. Anti-dynamiting regulations were among the first fishing control measures imposed in Sri Lanka. The impact of these restrictions on the fishing communities can only have been beneficial. In 2005, the penalties for dynamite offences were further increased. With better Navy surveillance related to the security situation, reported dynamiting incidents have declined. Beach seine regulations, require practitioners to obtain licences and this should not have adversely impact livelihoods.

86. While some coastal fishers will certainly have suffered adverse livelihood impacts as a result of restrictions on fishing gears and methods, including possibly loss of income, aggravation of poverty and indebtedness, no specific cases have been documented.

87. In 1992, to resolve resource-user conflicts between prawn trawlers and other fisher groups a Cabinet decision was made to prohibit prawn trawling in the Chilaw area. 150 trawl operators and their crews reportedly lost their livelihoods as a result, and consequently the Ministry of Fisheries offered a relief package to the affected fishers. This included a 25% subsidy to purchase multi-day boats, a monthly allowance of Rs. 4,500 per crew member to compensate for lost income by fishers and a Rs. 75,000 loan for the affected fishers to start self-employment activities. An unpublished review by the Ministry of Fisheries of the alternative employment scheme, concluded that it was a total failure and that the affected fishers are now worse off. Attempts to transform trawler fishers to deep sea fishers and self-employment ventures failed, as evidenced by the banks failing to recover loans and the borrowers are faced with the threat of losing the assets they mortgaged as

collateral. An important lesson from this case is that hurriedly designed plans to provide alternative livelihoods without proper training and orientation are bound to fail.

Fishing Restrictions Imposed for Other Purposes

88. There have also been many fishing restrictions of an *ad hoc* nature in recent years that are not connected to fisheries management. One example is the banning of night fishing in certain areas of the Jaffna peninsula areas which was imposed as a security measure. In other areas, fishing was prohibited at certain distances from the coast, whilst in areas designated high security zones (HSZ) near to ports or armed services camps, fishers were banned from going to sea thus virtually preventing them from fishing. These restrictions have largely been lifted now that security threat has been removed. These measures undoubtedly adversely affected the livelihoods of fishers, though it is undocumented in the public domain. The Ministry of Fisheries and Aquatic Resources arranged with the Treasury to grant relief measures as either financial grants or as dry food rations.

89. Fishing was suspended at Dikkowita during the construction of the deep water fisheries harbour. Fishers were paid interim allowances to compensate for lost income. Traditional trawler fishing was also suspended in the north because of offshore sand mining, with again compensation paid for lost income of fishers.

90. Following the 2004 Tsunami, an initial policy decision was taken to create a buffer zone with no new constructions/repairs of dwellings up to 100 meters from the shore to protect the lives of coastal inhabitants. Though this was later relaxed, the government and donors are continuing to encourage the people to relocate their houses further from the sea front. However because of limited land along the coastal fringe, fishers have been relocated in housing schemes remote from their fishing base which has adversely impacted on their livelihoods. The districts of Kalutara, Galle and Hambantota in the Southern Province and in Trincomalee district in the Eastern province have been particularly adversely impacted. Besides impacts on fishing, family kinship ties, education of children and the supplementary livelihoods of women has also been disrupted. It is therefore vital that mitigation measures are taken to resolve some of the above mentioned issues on a priority basis.

5. REFINEMENT OF EXISTING POLICIES TO STIMULATE THE ACHIEVEMENT OF RFLP OUTPUTS.

91. The need for refinements or improvements to existing policies, strategies and actions now being used for the realization of the Development Objectives of the sector were discussed in some detail in Section 1 under the review of current national policies, in relation to the six outputs of the RFLP. In that section, several weaknesses in the existing policy framework that need to be remedied, and gaps that need to be filled were highlighted, and a number of suggestions/recommendations were made. The suggestions/recommendations made are summarized in **Matrix B**. The Matrix

also identifies the party with whom responsibility should lie for initiating these changes/refinements.

92. Though most of these policy changes/refinements would not require substantial resources, they will place extra burden on the staff of the concerned institutions and it RFLP would need to sensitize key policy makers on the need for these initiatives. Furthermore it should be possible to obtain the support of other on-going projects for these initiatives. The Matrix also gives a time frame for the refinements/improvements, but this is only at this stage.

MATRIX B

Recommendations for Refinement of National/Policies/Strategies/Actions to Facilitate Achievement of RFLP Outputs

RFLP Outputs	Recommended Measures to facilitate achievement of RFLP Outputs	Responsibility	Time Frame
Output 1: Co-management mechanisms for sustainable utilization of fishery resources	Amendment of Sections 32 and 33 of the Fisheries Act which deals with the membership of fisheries management committees.	MFAR/DFAR	2010
	RFLP to work closely with the IFLC Project to improve the management of landing centers.	RFLP	2010 onwards
	Use the experiences/lessons learnt in Negombo Co-management activities and CENARA project in Puttalam.	MFAR/DFAR/RFLP	2010 onwards
	Department and NAQDA should establish Co-Management Units within institutions.	DFAR/NAQDA	2010
Output 2: Measures to improve safety and reduce vulnerability for fisher communities	Set up an improved system of reporting and analysis of incidents at sea causing loss of life or serious accidents to fishers and fishing craft.	MFAR/DFAR	2010
	Safety manual to be completed and information disseminated in a simple format in the local languages among stakeholders.	DFAR	2011
	DFAR to enforce Life Jacket regulation; create awareness on safety.	DFAR	2010 onwards
	Implement the key recommendations made in the Report on Boat Safety under Project GCP/SRL/505/ITA.	DFAR	2011
	Information available with NARA on productive fishing grounds such as fishing charts should be disseminated among the fishers.	NARA/DFAR	2010 onwards
	MFAR to set up regular arrangements for search and rescue in collaboration with Coast Guard Dept/Navy/Air Force.		ASAP
	DFAR/NAQDA to work out a solution to reduce the vulnerability of fishers/fish farmers to impacts of climate change.	MFAR/DFAR/RFLP	2010 onwards
	Collaborate with DFAR and other agencies to reduce diver DCS incidents.	RFLP	ASAP
	Modular Training for Skippers of MDB's to be made compulsory and made a condition for issue of fishing licenses.	DFAR	2011
Output 3: Measures for improved quality of fishery products and market	MFAR/DFAR to promote the use of refrigerated holds/RSW tanks in MDBs and carrying ice by FRP boats in insulated boxes by arranging concessionary credit.	MFAR/DFAR	Continue Ongoing process
	DFAR should prepare guidelines for improved on board catch preservation, disseminate them among	DFAR/NARA	2011

RFLP Outputs	Recommended Measures to facilitate achievement of RFLP Outputs	Responsibility	Time Frame
chains	boat operators/crews and carry out demonstrations.		
	DFAR to continue quality awareness programmes for fishers/vendors etc. by including them in the regular programmes of the Quality Control Division.	DFAR/NARA	2010
	DFAR should in collaboration with IFLCP and local bodies ensure the enforcement of food health and safety regulations at fish landing centers and markets.	DFAR/IFLCP	2010
	Promote the use of stackable plastic boxes (perhaps by the CFC) through an incentive scheme.	CFC	2010 onwards
Output 4: Strengthened and diversified income opportunities for fisher families	Technically and financially feasible activities should be identified and their viability demonstrated.	IFAD/NAQDA	Continue process
	Training on savings mobilization, enterprise management and marketing development for FCS and Women's Groups.	IFAD/NAQDA	2010
	Use the experience and lessons learnt by projects implemented in Puttalam by IUCN and MCRCF in the implementation of income diversifying activities.	DFAR/RFLP	-
	Establish a unit within the Ministry in order to guide, monitor and supervise the income generating /diversification programmes.	MFAR	2010
Output 5: Facilitated access to micro-finance services for fishers, processors and vendors Regional sharing of knowledge	Strengthen Diyawara Banks and Women's Groups through training and by developing links with financial institutions to meet some of the micro-finance needs of the fishers.	DFAR/NAQDA/IFAD	2010
	Sri Lanka's fisheries sector could benefit from the experience in the region in incorporating innovative features in micro-finance services; RFLP could assist MFAR in this regard.	MFAR/CBSL.	2010
	MFAR should to set up a small unit along with DFAR/NAQDA and the Central Bank to ensure the success of the micro-finance services within the sector.	MFAR	2010
	Select examples of successful policies adopted and/or activities implemented in the region which are relevant to Sri Lanka's problems and needs and disseminate them among concerned parties.	RFLP	
	Arrange cross visits/exposure tours for selected stakeholders involved in livelihood development.	RFLP	
	Arrange a platform for exchange of information through regional workshops.	MFAR/RFLP	
	Produce and disseminate publications containing appropriate case studies.	RFLP	

ATTACHMENT 1

TOR

- 1) Prepare a detailed national review covering aspects of current fisheries and aquaculture policies relevant to the six (6) outputs of the Regional Fisheries Livelihoods Programme (RFLP). Details of the review are provided below.

The RFLP outputs are:

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

2. A synthesized national overview of the current status of sectoral i.e. fisheries and aquaculture, and non-sectoral policies at both national and local level which will or may impact on the successful achievement of the six Regional Fisheries Livelihoods Programme (RFLP) outputs.

The six RFLP 6 outputs are:

- 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; and,
- Regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management.

ATTACHMENT II

LIST OF REFERENCES

1. Mahinda Chinthanaya, Towards a New Sri Lanka, 2005
2. Mahinda Chinthanaya, Vision for the Future, 2010
3. Ten Year Development Policy Framework of the Fisheries and Aquaculture Sector, 2007-2016, March 2007, Ministry of Fisheries and Aquatic Resources
4. Dr. P.P.G.N.Siriwardena, Shrimp culture in Sri Lanka (undated, unpublished)
5. D.S.Jayakody, South Coast Lobster Fishery, Nov '96 (Unpublished)
6. Diyawara Saviya Micro Enterprise Credit Scheme, IFAD (Unpublished)
7. Report of the RFLP Baseline Policy Workshop, December 2009
8. Towards an Operational Oil Spill Contingency Preparedness in Sri Lanka, Jayamanne, Ratnaweera, Sorensen, Paper No: 185, COPEDEC VI, 2003, Colombo Sri Lanka
9. Steffan Thermes, Report of the Consultancy on Boat Safety, 2007 (Unpublished)
10. IUCN, Conservation Management Plan for Ten Selected Mangrove Habitats South of Colombo, Jan 2000
11. Ministry of Environment, Climate Change Secretariat, Sector Vulnerability Profile: Agriculture & Fisheries, May 2010 (Draft)
12. H.S.G.Fernando, Current Status of Safety at Sea Initiatives in Fisheries, 2008
13. CZMP 2004, Coast Conservation Department, published in Government Gazette 24.01.2006
14. DFAR/UNDP, Compendium of Fisheries Legislation in Sri Lanka, 1998
15. National Environmental Policy and Strategies, Ministry of Environment & NR, August 2003
16. Forestry Management Plan: Forestry Planning Unit of the Ministry of Agriculture, Lands and Forestry, July 1995

ATTACHMENT III**LIST OF PERSONS CONSULTED**

Name	Organization/Agency
Dr.Champa Amarasiri	National RFLP Coordinator
Nishan Dissanayake	M & E Officer RFLP
Palitha Muthukude	Fisheries Expert (Community Participation) FAO/FLC Project
Leslie Tissera	National Coordinator IFAD funded PTCRRMP
Bandara Basnayake	Gender Specialist IFAD funded PTCRRMP
Gamini Hewage	Deputy Director Coast Conservation Department
Shantha Bandara	Acting Addl: Secretary MFAR
Indra Ranasinghe	DG, Development MFAR
D.M. Nandasena	Asst Director DFAR
A.Hettiarachchi	Former Director General (Dev) MFAR
H.S.G Fernando	FAO Fisheries Consultant
Jayantha Chandrasoma	Chairman NAQDA
A.D.P.A Wijegunawardena	Deputy Director MFAR
Sumana	Economist DFAR
Ms. Kalyani Hewapathirana	Biologist DFAR
Ms.Sepalika Wickremasinghe	Deputy Director, Fish Quality Control Div: DFAR
Dr. S.Haputantri	Head of Marine Biological Research, NARA
Malaka Dissanayake	Programme Officer , Central Environment Agency
Sarath Fernando	Conservator-General, Dept of Forestry
Kumari Vithana	Legal Officer DFAR
Saman Senanayake	Director NWP Provincial Environmental Authority
Kapila Gunaratne	Programme Specialist IUCN
J.Ratnayake	Director Monitoring, Control & Surveillance DFAR
N.Abeywickrema	Director Planning & Monitoring, MFAR
M.A.Kularatne	Chairman MPPA
Nimal Chandraratne	Director Brackish Water Aquaculture NAQDA