

# Rebuilding Fisheries after the Tsunami: Highlights of Sri Lanka's Strategy and Programme



*An outline of the plan to rebuild the fisheries sector – in the short-term and the long-term.*

**H**ow can Sri Lanka “build back better” after the havoc of the December 2004 tsunami? A strategy and a programme have been devised for post-tsunami reconstruction and development in marine fisheries by the Ministry of Fisheries and Aquatic Resources (MFAR) with FAO support. Details of the programme have been published in a 76-page booklet. It will help efficient coordination and utilization of relief effort by governments, UN agencies, NGOs and others. Highlights of the strategy and the programme are summarized here.

## Impact of the tsunami

Some 35 000 people in Sri Lanka perished in the tsunami, and nearly half a million people lost their livelihoods. Thousands of houses collapsed, three-fourths of the fishing fleet of approximately 32 000 boats were damaged. (The cost of boat and gear repair and replacement is estimated at US\$ 57 million). Large urban fish markets and many retail outlets sustained heavy damage; so also did some 200 fish landing sites, 10 fishery harbours and 37 anchorages plus associated ice plants, cold stores, buildings and vehicles in the affected areas. Coastal habitats, particularly coral reefs, mangroves and coast protection structures suffered varying degrees of damage.

Extensive havoc was caused to many fishery-related institutions – buildings, assets, training vessels, research tools.

Fish production in 2005 (statistics not available yet) was perhaps about 46 per cent lower than in 2004. Foreign exchange earnings from fish exports (particularly species such as ornamental fish, lobster, grouper, chank and *beche de mer*) were substantially lower.

## Goals of reconstruction

The government wants to use the challenge of reconstruction as an opportunity to “build back better,” to create a world of fisheries and fishing communities better than it was before the tsunami.

The goal of the strategy is to provide fishing communities with more secure livelihoods, higher standards of living, better protection from natural disasters and safety at sea, better risk insurance, restoration and conservation of the fisheries resources and of the marine and coastal environment.

The strategy stipulates as essential sustainable management of Sri Lanka's fisheries and coastal zones; it seeks to restore private assets, rebuild and enhance public goods; and improve governance of the fisheries sector by public agencies at all levels.



Several agencies will play a pivotal role in the programme – the Department of Fisheries and Aquatic Resources (DFAR), the Department of Coast Conservation (CCD), the National Aquatic Resources Research and Development Agency (NARA), National Aquaculture Development Authority (NAQDA), and the National Institute of Fisheries and Nautical Engineering (NIFNE).

The fisheries reconstruction and development programme will be coordinated by the Programme Coordinating Unit in the MFAR. It will also establish an overall monitoring and evaluation system, and guide project-level implementation.

## Key Guiding Principles

Key Guiding Principles have been enunciated for both short-term and long-term reconstruction. They are as follows:

- Provide the basis for sustainable management and development of the fisheries and aquaculture sectors;
- Ensure that reconstruction and development efforts are perceived by local communities as a right and addressed in a compassionate manner;
- Adopt a livelihoods approach;
- Adopt a coordinated and transparent approach;
- Promote the enhancement and conservation of coastal and aquatic resources through integrated and participatory management; and

- Ensure compliance with international and regional conventions, agreements and guidelines (such as the UN Convention on Law of the Sea, FAO Code of Conduct for Responsible Fisheries, UN Fish Stocks Agreement, FAO International Plans of Action (IPOAs) and others.

### The Short-Term Programme

The short-term rehabilitation and reconstruction programme will build upon and complement ongoing humanitarian and recovery work that started in January 2005. It will focus on repair and replacement of damaged and lost fishing boats and gear; re-establishment of fish processing, distribution and marketing chains; and capacity strengthening for reconstruction and development at all levels.

Rehabilitation activities needed urgently at the village level include repairs to damaged village roads, clearing of beaches from debris, cleaning up of drainage canals, planting mangroves, etc.

Infrastructure facilities to be provided should include basic facilities such as water, electricity, communication, health, etc; community recreational facilities, libraries, pre-schools and vocational training centers; and warning

systems including public access corridors and roads for quick evacuation at times of future natural disasters.

The short-term reconstruction programme will cost an estimated US\$ 78.43 million (Table 1). The details of the short-term programme are as follows.

**1) Repair and replacement of damaged and destroyed fishing craft and gear:** While high priority is given to repairing damaged craft, and to replacing boats destroyed and fishing gear lost to enable fishers to resume fishing quickly, boat replacements shall not be allowed to lead to an uncontrolled intensification of fishing effort and worsening resources overexploitation.

District-level coordination and information exchange between boat suppliers and fisheries officials shall be promoted to ensure that the number of vessels will not exceed that before the tsunami.

Replacement of boats will require entitlement certificates issued to fishermen. New boat manufacturing facilities will not be encouraged so as to avoid over-capacities.

To satisfy essential safety standards for new boats, the present boat-building practices and standards shall be reviewed and minimum

standards for design and construction shall be introduced.

Provision of fishing gear will be in accordance with existing regulations. Gear suppliers will be discouraged from delivering nets and other fishing gear that are harmful to the resource and/ or environment.

### 2) Re-establish private fish retail outlets and municipal fish markets:

Financial, technical and logistical support is necessary to help a large number of small players – fish stall owners, bicycle and motorcycle fish vendors, other traders – to re-establish themselves in business. Minimum hygienic requirements for fish marketing should be met to ensure food safety and improve food quality. To improve temporary storage facilities, unhygienic wooden boxes will be replaced as containers by durable plastic boxes. Better access roads are needed from landing places to main roads, especially along the east coast; and quality water for making ice.

There is an urgent need to re-establish the three fish market at Galle, Matara and Hambantota, which were completely destroyed. Grants, debt relief or new loans will be considered for reconstruction of privately owned fish retail outlets and the network of cycle/ motor-cycle vendors.

### 3) Re-establish fish landing facilities at fishery harbours, anchorages and landing sites:

The formulation of a master plan for fishing harbours, anchorages and landing sites will be accorded high priority.

Establishment of adequate public access to the beach has been identified as an urgent need, the lack of which hampered evacuation of people from beaches during the tsunami. While there is a need to relocate man-made infrastructure (hotels, residences) located in the no-build reservations and other highly sensitive areas, 'reconstruction/ development' activities within the sensitive coastal reservation areas including low-

**Table 1: Cost estimates for short-term rehabilitation**

Programme Activity	Year and cost (LKR million) - if applicable -		
	2005	2006	Total
Repair and replacement of fishing craft and gear	3043	2641	5684
Re-establish private fish retail outlets and municipal fish markets	10	44	54
Re-establish the fish landing facilities at fishery harbours, anchorages and landing sites	10	21	31
Rehabilitate damaged coast protection structures and coastal habitats	40	900	940
Re-establish essential institutional support services and facilities		822	822
Capacity building in support of district-level planning and implementation		128	128
Promotion of sustainable fisheries management		141	141
Institutional strengthening		43	43
<b>Total</b>	<b>3103</b>	<b>4740</b>	<b>7843</b>

lying beaches will be regulated under the framework of the Coastal Zone Management Plan.

**4) Re-establishment of essential institutional support services and facilities:** Damaged infrastructure of government support services and agencies needs to be quickly restored to enable the reconstruction process. This includes the reconstruction of district fisheries offices, restoration of laboratories, repair or replacement of research and surveillance vessels (NARA), scientific equipment and radio communication systems, and training vessels and demonstration equipment (NIFNE).

To strengthen the livelihoods and earnings of fishers, R & D activities will aim at tapping under-exploited resources, at increasing the participation of women in fisheries activities, promoting income-generating activities, and improving fish processing and marketing. It is recognized that the early rehabilitation and management of coastal habitats is vital to the sustainability of the fishing industry.

**5) Capacity-building in support of district-level planning and implementation:** District offices of DFAR will have a pivotal role in the programme. They will have to streamline operating procedures, including effective communications, capacity building and support systems. The responsibilities of the local administration under the programme would include:

- Organizing meetings and detailing procedures for prioritizing, planning, implementing and coordinating reconstruction and development programmes with fishing communities;
- Strengthening fisheries co-operatives and other local organizations;
- Providing assistance in project planning and implementation;
- Improving communications systems, including television and radio broadcasting, video and printed material;

- Coordinating improvements to access roads, fish market infrastructures, potable water supplies and other amenities;
- Ensuring training that includes disaster warning, management systems and practices in coastal areas;
- Ensuring efficient credit operations for programme beneficiaries, particularly women, to undertake family supplemental income activities; and
- Ensuring programme monitoring and impact assessment.

To achieve this, the facilities, capabilities and services of DFAR and CCD personnel at district levels will be further strengthened to allow them to play a proactive and supporting role. An institutional needs assessment will be carried out at DFAR and other agencies.

#### **6) Sustainable fisheries management:**

Sri Lanka has a long history of heavy investment in shore-based fisheries infrastructure (including harbours, landing sites and boats), but catches per unit effort have been modest, as fishery resources (especially inshore) have been over-exploited. A closer analysis is needed of the maximum sustainable yields of the main commercial species, the ideal fleet size and composition, and the required institutional facilities and human capacities for fisheries management at all levels. Improvements are needed in fish catch monitoring, licensing and regulating fishing crafts, use of fishing gear, surveillance of exclusive fishing zones and the boundaries of fishing areas under the jurisdiction of local governments.

#### **7) Institutional strengthening:**

To implement the planned reconstruction and development programmes as well as to achieve competent technological standards, some of the Ministry's agencies such as DFAR and NARA need strengthening through capacity building, state-of-the-art technologies and facilities, and programme monitoring.

There is an urgent need to rehabilitate the quality control laboratory at NARA. This will help exporters meet the rigorous quality standards of shrimp and tuna in American and EU markets. Planners and policy-makers, fishers, fish traders and exporters will benefit immensely from a trade and market information system that incorporates basic fisheries data.

Over the years, agencies such as NARA, CCD, NIFNE and DFAR have lost experienced staff through retirement or resignations while recruitments have been minimal. Capacity-building and training are essential so that these agencies recover from the devastation of the tsunami and fulfill their mandates.

#### **Medium/ Long-term Programme:**

The medium and long-term development programme will focus on improving the livelihoods of fishing communities beyond pre-tsunami levels. It will promote economic diversification and sustainable utilization and management of coastal resources. It is envisaged that this phase will be completed in 2009.

**1) Strengthening communities and their productive activities:** The scope for further increases in marine catch is limited. The focus has to be in the following areas:

- value-addition through improved onboard and onshore post-harvest practices and fish processing;
- increased profitability of fish harvesting through effective fisheries management that prevents economic waste;
- better designs for multi-day boats to improve operational efficiency, product quality, and safety at sea;
- prevention of over-fishing, restoration of fish stocks and protection of critical fish habitats; and
- promotion of economic diversification through aquaculture development and tourism-related services.

Fisheries cooperatives will be strengthened through better facilities in fish handling, training in skills development, and credit schemes.

The programme to help fishing communities will give priority to women.

Specific training for coastal communities will promote value-added fish products and better handling and processing of fish and the utilization of fish waste to prepare marketable products such as poultry feed and handicraft, particularly by women's groups.

The MFAR will seek to strengthen interaction of coastal communities with humanitarian and technical NGOs as well as private companies.

**2) Reconstruction and modernization of anchorages and fishery harbours:** The Ceylon Fishery Harbours Corporation (CHFC) has prepared detailed cost estimates for re-establishing 37 anchorages and rebuilding 10 fishery harbours. A master plan for the reconstruction of anchorages and landing facilities will be developed and implemented in co-operation with the fishing communities. Several donors have already taken on responsibility to repair damaged harbours.

**3) Sustainable fisheries management:** During the short-term phase the focus is on creating management awareness and avoiding excessive fleet size. Medium and long-term activities will focus on strengthening institutional structures and capacities for routine fisheries management (vessel registration, fishing licensing and community-based management systems). Current MCS (monitoring, control and surveillance) activities are ineffective. These must be strengthened and expanded – more patrol boats, better infrastructure facilities, higher manpower skills.

High priority will be accorded to a rapid assessment of fish resources in the wake of the tsunami and to the proposed comprehensive fish resources survey to be funded by SIDA and NORAD. A comprehensive evaluation of fishing practices in each district will then be undertaken, so that management

**Table 2: Cost estimates for medium to long-term development**

Programme Activity	Year and cost (LKR million) - if applicable -			
	2007	2008	2009	Total (Preliminary)
Strengthening communities and their productive activities	96	228	91	415
Reconstruction and modernization of fishery harbours and anchorages	1 827	1 450	420	3 697
Sustainable coastal area management	1 000	1 000	560	2 560
<b>Total</b>	<b>2 923</b>	<b>2 678</b>	<b>1 071</b>	<b>6 672</b>

needs and strategies can be determined on the basis of resource survey findings.

Priority will be given to technologies to reduce post-harvest losses through improved onboard and onshore handling practices, and to development of value-added products.

To ensure participatory fisheries management, plans with clear objectives and responsibilities need to be developed for each of the managed fisheries. A management plan is also needed for the offshore fishery that will be compatible with regional management needs.

**4) Sustainable coastal area management:** Many natural coastal habitats such as mature sand dunes, mangrove belts, coral and sandstones, reefs at one time functioned as effective barriers to reduce the impact of cyclones and tsunamis. Participation of coastal

communities will be enlisted to protect these coastal habitats from destructive human activity.

The CCD has identified critical sites to be managed under Special Area Management (SAM) plans, with the active participation of coastal communities and other stakeholders.

**5) Capacity-building in support of planning and implementation:**

Activities will build on and complement ongoing work started during the short-term phase. Mid-level cadres of the MFAR and the DFAR should be built up as a matter of high priority. At the district-level, officers of DFAR, CCD and other fisheries agencies need to be supported with logistics, transport and communication facilities.

**Cost estimates** The medium to long-term reconstruction programme will cost an estimated US\$ 88.85 million (Table 2).

*Boat replacement and repair – an important part of short-term tsunami rehabilitation.*

