

**Rehabilitation Strategy for  
Fisheries Resources and Tsunami Victims  
among Fishing Communities of Thailand**

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## BACKGROUND

**On 26 December 2004, a massive earthquake near the coast of the island of Sumatra in Indonesia triggered a tsunami that caused massive damage to communities around the Indian Ocean, including many along the Andaman Sea coast of Thailand. Many fishing communities in the six coastal provinces of Ranong, Phang-gna, Krabi, Phuket, Trang and Satun were devastated, with severe damage inflicted on fisheries and aquaculture. The Thai Department of Fisheries (DOF) conducted a preliminary assessment of the damage, and concluded that the damage to fisheries-related activities accounted for at least THB 2.5 billion<sup>1</sup> (USD 62.5 million).**

The preliminary assessment showed that 422 fishing villages along the Andaman Sea were affected by the tsunami, with Phang-nga the most severely affected province. Among these 422 villages, 40 fishing villages were severely damaged, with a further 200 experiencing significant damage. Some 700 fishers died, most of whom were small-scale.

### Impact on Fisheries

Some 6,100 fishing boats were damaged by the tsunami, of which 76 % were smaller than 10 meters long. The total damage caused to the fishing fleet was estimated at THB 687.4 million, THB 331.9 million to large boats and THB 355.5 million to small boats. Of the 6,100 boats damaged, around 550 boats could be salvaged, mostly larger fishing vessels worth an estimated THB 112 million.

Fishing gear lost included bamboo stake traps, nets, crab traps, squid traps, and fish traps, and was estimated to be worth around THB 160 million.

### Impact on Aquaculture

From the DOF's preliminary assessment, 27,000 fish cage culture operators along the Andaman coastline in the six provinces were affected by the tsunami. Most if not all of their fish cages were lost.

Marine shrimp culture in the six Andaman provinces was also seriously affected. 342 rai (about 55 ha) of shrimp ponds and more than 15 million square meters of hatcheries were destroyed by the tsunami. The six affected provinces being the main areas producing marine shrimp seeds in Thailand, the damage to these hatcheries has resulted in vast losses for Thailand's marine shrimp culture industry. Nearly 300 hatcheries were damaged, accounting for a 30% fall in seed production capacity nationwide, causing a reduction in shrimp production of 70,000 metric tons per crop of production. Losses to the sector will continue for many years, until seed production capacity is restored to its previous level.

Reserved fisheries were also damaged by the tsunami, with more than 2,000 square meters affected. Reserved fisheries are areas in which a person has been permitted to fish, including the use of trapping ponds, or to cultivate aquatic animals. Most farmers in these areas culture bivalves.

The total estimated value of tsunami damage to aquaculture in Thailand is THB 600 million.

<sup>1</sup> USD 1 ≅ THB 40



## TACKLING TSUNAMI DAMAGE TO FISHERIES

### Establishing a rescue centre and units

Since December 26 2004, the DOF has provided immediate assistance to the victims of the tsunami. During the first week, patrol vessels, including the Mahidol Research Vessel, and DOF staff rescued 1,583 survivors and collected 518 bodies. The DOF Rescue Centre was established on December 27, 2004 at the Andaman Marine Research and Development Centre in Phuket to enable victims, mainly fishers, to report their losses and damages. Five Rescue Units were also established in Phang-nga, Satun, Krabi, Ranong, and Trang. Like the DOF Rescue Centre, these units were equipped with a communication system and computers, and were manned by DOF staff for data collection.

### Preliminary damage assessments and provision of government relief fund

Early urgent data collection was carried out by the various rescue centres and units, and preliminary damage assessments of affected areas were completed by the DOF by 11 January. Approximately THB 1.3 billion had been provided by the government as a relief and compensation fund for fishing communities, of which THB 235 million had already been distributed among 422 villages in line with the government's financial regulations. This fund was only sufficient to partially compensate people for their losses. Many people were unregistered at the time of the tsunami, and have not been able to access compensation at all.

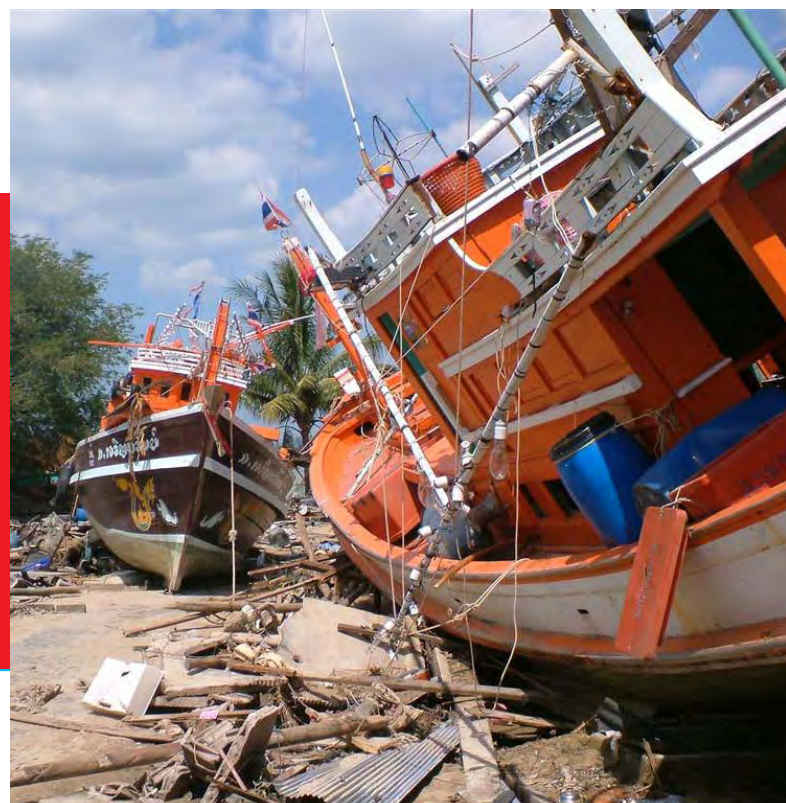
### Development of a Fisheries Rehabilitation Plan Needs

In the weeks after the tsunami, the DOF consulted widely, conducted surveys and made a preliminary need assessment, in order to understand the needs of fishing villages in affected areas. These included requirements, both immediate/short term and medium/long term, for direct support with equipment and infrastructure, and indirect support such as training, counselling and capacity building to assist recovery and the gradual rebuilding of livelihoods.

In addition, coastal habitats and the environment were significantly altered after the tsunami. In many coastal areas, coral reefs, which are critical fish habitats, were either severely damaged or destroyed. This created a direct long-term impact to fisheries resources which, in turn, will most likely seriously affect fishing communities' livelihoods. The DOF preliminary assessment in early January 2005 concluded that, in some areas, fisheries resources have declined by half since the tsunami.

As a result of the DOF's preliminary needs assessment, it is important that DOF develops a fisheries rehabilitation plan to deal with the damage caused by the tsunami, both to coastal resources and to the victims among fishing communities. To this end, DOF in February, 2005 organized a workshop on 'Fishing Communities and their Livelihoods in the Tsunami Aftermath' in Phuket, in collaboration with the EU/RTG CHARM Project and with the support of FAO, NACA and SEAFDEC. The purpose of the workshop was not only to collate damages assessment but also to assess needs and facilitate dialogue between the communities, NGOs, local authorities and international

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and national donors. A number of activities for rehabilitating fishing communities' livelihoods were identified, mostly with a focus on immediate/short term occupations, while mid-to-long term activities were also addressed, such as unemployment or occupation development. The main concern for fishing activities was nonetheless on the immediate requirements for boat repair and replacement, provision of fishing gears, revolving funds or micro finance. This will enable both small- and large-scale fishers and aquaculturists to restart their occupation and earn income for their family as soon as possible.

The Fisheries Rehabilitation Plan contains two schemes: *Livelihood Rehabilitation* and *Coastal and Fisheries Resource Rehabilitation*. The two schemes have been broken into phases covering immediate needs (3 months), short-term rehabilitation (4-6 months), medium-term rehabilitation (6-12 months) and long-term rehabilitation (1-2 years onwards). The needs for support were also split between the household/village level and the institutional level.

## LIVELIHOOD REHABILITATION

### Household/Village Level

Direct immediate/short-term support needs identified so far include items such as:

- Replacing and repairing fishing equipment and gear (such as boats, engines, engine parts, nets and traps)
- Replacing and repairing fishing boat and shipyard buildings
- Providing communication equipment and systems for fishing operations, both for small- and large-scale fishermen
- Rebuilding and repairing fish landing areas and piers
- Providing minor equipment and facilities for fish handling such as buckets, insulated boxes, cold storage at fishing piers
- Rebuilding major non-fishing items, such as houses
- Re-establishing access to aquaculture inputs, such as fish seed, cage reconstruction materials
- Setting up access to flexible forms of low interest credit/micro finance, particularly for large scale fishermen, shrimp hatchery operators, fish landing operators, and fish handling operators.

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Medium-term and long-term counselling and capacity building needs among fishers and their organisations identified so far include:

- Training in natural disaster and sea safety for fishing communities' members, including the development of demonstrations for early warning systems for natural disasters, such as radio warning, evacuation/escape procedures, etc.
- Training fishers in boat building and repairing
- Capacity building for village-based fishermen organisations in micro-credit and revolving fund management
- Training in alternative marine-based livelihoods, such as sea farming or offshore fish cage culture
- Planning for recovery among village fishermen organisations, particularly targeting an improvement of the quality of life

### Institutional Level

Medium-term and long-term capacity building is also required among supporting institutions, including government and NGOs, including:

- Training of DOF personnel on food safety, particularly on toxicology analysis techniques to address concerns of the public about the safety of seafood that have depressed local markets, and for longer term monitoring
- Training of trainers (DOF and TAO officers) on natural disaster and sea safety
- Participatory planning and co-management of coastal zone and fisheries resources management
- Responsible fisheries and aquaculture management.

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## COASTAL AND FISHERIES RESOURCES REHABILITATION

### Institutional Level

Medium-term and long-term capacity-building actions would include:

- Assessment and rehabilitation of coastal and fisheries resources
- Mapping of fisheries resources and development of mitigation plans for the restoration of fish habitats, mangrove rehabilitation, and so on.
- Enhancement of the capacity of the Marine Research and Development Centre of the Andaman Sea in Phuket, and the units in Phang-nga and Satun to strengthen their capacity in assessment, monitoring and rehabilitation programs for the fisheries resources in the six affected provinces.

## COLLECTION AND DIVULGATION OF INFORMATION ON NEEDS AND ASSISTANCE

### Database

While substantial support has been mobilised in a short period of time, through the government, NGOs and the private sector, this remains inadequate and poorly coordinated for the longer term. Various international organizations and donors have also shown interest to contribute and assist. Coordination among agencies and

sharing of information on needs are important for ensuring that work is accomplished efficiently. To support effective sharing and to help coordination, DOF has been gathering existing information on needs in the form of a database organized at the household level, with a focus mainly on fishing communities.

The database identifies each household’s name, address and the extent of fishery related losses and needs (including both fishing and fish farming). Information on inputs or assistance planned and received for a particular household will be included, such as DOF assistance through the relief fund, international donors help with boat replacement or a particular type of fishing gear provision. The DOF database will serve as the backbone of information on livelihoods rehabilitation and will be used to integrate the Thai government work with the NGO-Coordination Network’s (NGO-COD) data.

This ‘core’ information provision by DOF together with NGO-COD is intended to ensure that work is carried out efficiently, avoiding duplication and waste. The compiled information will also enable DOF to develop a dynamic picture of the support requirements, including:

- a. Geographical areas (with a village and community focus)
- b. Village and household level assessments
- c. Most vulnerable households
- d. Specific vulnerable groups that are not covered by household registration
- e. Needs’ aspects of particular villages
- f. Activities required
- g. Actors for particular aspects
- h. Which activities have already been taken care of, by government, NGOs, or donors, and which have not



This information can be used to quickly develop a focused picture of the support required in a precise place.

The development of the database has recently been completed, and the information has been shared with the government agencies and NGOs' networks, as well as with international and national donors. The information must be screened to localize gaps, such as geographical information and vulnerabilities. The material included will be updated regularly as information from ongoing work is provided, thus ensuring the ongoing validity and relevance of the database. The important task of updating the database is being coordinated by the Andaman Forum, a coordinating body for tsunami rehabilitation focused on livelihoods aspects, as detailed below.

### Responsibilities of the Andaman Forum

- Coordination of a joint government-NGO-donor programme to support the rebuilding of livelihoods of the tsunami victims
- Facilitation of the matching of needs and available support
- Management of a database and communication system, including updated needs assessments, tracking of interventions and exchange of experiences in tsunami relief and recovery
- Assistance to the management of projects that may be implemented through the joint programme
- Management of funds (only if required – normally funds should go directly to the beneficiaries in the villages)
- Monitoring and evaluation
- Assistance with procurement (as required, according to donor policies and procedures)
- Report to the Sub-Committee on International Cooperation and Task Force 3 on outcomes, particularly on fisheries and related aspects for fishing communities
- Generally facilitate more effective communications and exchange of experiences in tsunami relief and recovery, notably through the organisation of meetings.

### Website

The information contained in the database will also be made available through a web-based database, which can be easily accessed by all and used to facilitate matching of support between the donors and beneficiaries. The website would incorporate a forum to offer a place for discussion and promotion of exchanges of experiences. In that context, the site will be in both Thai and English, in order to ensure that NGOs, donors, local groups and governmental organizations can all interact effectively.

The website is aimed at facilitating the 'tracking' of interventions on a village basis and allowing the identification and targeting of where support and activities must be next directed. It will principally provide updated information on affected villages' households with their identified needs, and past and ongoing support. The outcomes of monitoring and evaluation will be included in order to facilitate a rapid sharing of experiences.

### MECHANISMS FOR SUPPORT AND COORDINATION

To support an effective matching of needs with available support, a coordinating body needs to be established. The coordinating body has to have the confidence of all actors, and has to be accountable to the government, communities and donors. As an outcome of the February Workshop in Phuket, all parties (DOF, NGO-Network, Communities, and the Tambon Administration Organizations, as well as FAO, NACA, SEAFDEC, and the EU-RTG CHARM Consortium) agreed to set up an Andaman Forum as a coordinating network. This will be physically located in the Andaman Marine Research and Development Centre in Phuket.

DOF offered support through office space and some officers. The EU/RTG-CHARM project also supported the establishment of the office, and provided permanent staff for coordination and information updating. Another small office was set up in the DOF's Fisheries Foreign Affairs Division in Bangkok to ensure good coordination between the Andaman Forum and DOF headquarters.



#### ABOUT THE AUTHOR

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