

THE NEXT WAVE

**OUTCOMES OF THE REGIONAL WORKSHOP ON
INFORMATION MANAGEMENT AND COORDINATION MECHANISMS OF
TSUNAMI EMERGENCY AND REHABILITATION OPERATIONS IN
AGRICULTURE, FISHERIES AND FORESTRY**

**30 OCTOBER – 1 NOVEMBER 2006
BANGKOK, THAILAND**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
REGIONAL OFFICE FOR ASIA AND THE PACIFIC
Bangkok, 2006**

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Foreword

Some say the Indian Ocean tsunami on 26 December 2004 was the most reported and well-funded disaster in history. Hundreds of humanitarian organizations, several thousand military troops from a dozen countries and hundreds of millions of dollars were pledged to aid the stricken countries. Two years on, much of the physical damage has been repaired. Most of the people affected have re-established their livelihoods, some with more success than others it is true. Overall, the physical recovery in most areas has been remarkable. The “emergency response” phase is over and governments are now looking beyond recovery and rehabilitation to long-term development.

As the visible scars of the tsunami disaster heal and fade, one of the major challenges for governments is to apply the lessons learned from this disaster to national development plans, including disaster planning. The costs related to natural disasters are now 15 times higher than they were in the 1950s. According to the IMF, material losses caused by natural disasters in the 1990s amounted to US\$652 billion. The number of disasters has also grown from fewer than 100 in 1975 to more than 400 in 2005. Approximately 2.6 billion people were affected by natural disasters over the past ten years, compared to 1.6 billion in the previous decade.

A growing number of people are beginning to realize that a portion of these costs can be traced back to ineffective information management and coordination mechanisms. For example, in the aftermath of the tsunami, local people and local NGOs came to each others’ assistance first. Even with the benefit of local knowledge they discovered that their baseline data was incomplete. Government information, in most cases, was considered outdated or irrelevant to their needs. In too many instances, government agencies and aid organizations were basing their relief efforts on “informed” or “best” guesses.

The tsunami has highlighted the central role of information and coordination in effective response, recovery and rehabilitation. The many general and specific obstacles to information gathering are now well documented. It remains to be seen if these lessons can be taken to heart. We cannot know when the next disaster will strike or its magnitude. We can be almost sure there will be more disasters. The only rational response is to have our information management and coordination mechanisms in place before the next disaster.

These proceedings document the discussions of some of the central actors in the emergency response, recovery and rehabilitation efforts in Indonesia, Maldives, Sri Lanka and Thailand. Present at the forum were senior representatives from the key government agencies responsible for coordination and delivery of aid, senior project managers from the Food and Agriculture Organization of the United Nations, and representatives from a number of involved international and regional organizations.

The presentations and discussions focused on three main areas:

- the progress, achievements and impact of the FAO information management project (OSRO/RAS/503/CHA);
- the current and future status of coordination mechanisms and information management in each country; and
- opportunities for further development and improvement of coordination mechanisms.

A great deal of information was shared and exchanged during these proceedings and this is recorded in the various presentations and papers. What matters most, however, are the conclusions that

emerge from such discussions and the action that follows from those conclusions. At the end of this workshop, the key messages from the participants can be summarized as follows:

Emergency response, rehabilitation and recovery are distinct phases but they are linked. Aspects of rehabilitation and recovery need to be addressed in the emergency response phase. Recovery includes issues that extend far beyond the disaster zone, i.e. national development planning, poverty alleviation and governance.

The tsunami highlighted, once again, the importance of effective links between central government agencies, local NGOs and communities. “Participation” and “participatory approaches” are critical elements of an effective response.

The state of readiness before a disaster strikes includes the available information, the state of information management systems, and the capacities of people involved to use those systems. The state of readiness of both people and systems is a significant determining factor in how quickly and effectively government, non-government and external agencies can respond.

The value and importance of information, information management and coordination mechanisms are still not adequately appreciated. The consequence is that too few resources are allocated too late in the process. The tsunami disaster raised awareness somewhat, but those in the field must continue to lobby hard for funding and other forms of support and continuously remind government ministries of the importance of information management.

Finally, a better and more secure future for the people and communities affected by the tsunami now depends on well-coordinated, integrated and participatory planning efforts at national, provincial and local levels.



He Changchui
Assistant Director-General and
Regional Representative for Asia and the Pacific

Acknowledgements

This publication marks the culmination of FAO project OSRO/RAS/503/CHA on Information Management and Coordination Mechanisms of the Tsunami Emergency and Rehabilitation Operations in Agriculture, Fisheries and Forestry.

This publication was produced by the participants who attended the regional workshop in Bangkok, 30 October – 1 November 2006. They provided the raw material in the form of presentations, papers and discussions and FAO gratefully acknowledges their contributions.

Funding for the workshop was provided by OCHA. FAO gratefully acknowledges their financial support and the trust they have extended in allowing FAO a “free hand” in organizing the event.

No workshop can succeed without a small team of committed individuals who attend to the many logistical details required to bring together a group of people from many countries and Ministries and organize an agenda that results in a productive meeting and tangible outcomes. In this case, FAO acknowledges the efforts of Dr Gamini Keerthisinghe, Senior Plant Production Officer, FAO RAP; Mr Merkur Beqiri, Tsunami Information Management and Review, Project Lead Consultant, FAO RAP; and Dr Yuji Niino, Land Management Officer, FAO RAP; and the many committed FAO support and administration staff who worked behind the scenes.

FAO would also like to extend a note of appreciation to the Governments of Indonesia, Maldives, Sri Lanka and Thailand for delegating senior officers to attend this workshop.

Finally, FAO thanks the participants who spent many hours preparing their material and actively engaged in a highly productive meeting.

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The workshop in context

This workshop was one in a series of meetings, workshops, conferences and seminars convened by a wide range of actors in response to the unparalleled disaster of the tsunami on 26 December 2004.

One result of these meetings is a large body of documented material available on the economic, social and cultural dimensions of the disaster and the various forms of response. Annex 5 provides a number of excerpts from some of the key regional meetings organized by FAO.

Interested readers will find the full reports as well as additional material and publications on the FAO website of the Regional Office for Asia and the Pacific at

http://www.fao.org/world/regional/rap/publication_catalogue.asp

Some of the regional meetings organized by FAO

Regional strategic framework. Rehabilitation of fisheries and aquaculture in tsunami affected countries in Asia, March 2005

Regional coordination workshop on rehabilitation of tsunami affected forest ecosystems: Strategies and new directions, March 2005

Regional workshop on salt-affected soils from sea water intrusion: Strategies for rehabilitation and management, April 2005

Regional workshop. One year later – the rehabilitation of fisheries and aquaculture in coastal communities of tsunami affected countries in Asia, March 2006

Regional workshop on rehabilitation of agriculture in tsunami affected areas: One and a half years later, June 2006

Regional workshop on coastal area planning and management in Asian tsunami affected countries, September 2006

The workshop concept: Why this workshop was important

Background

Following the tsunami, international and national institutions and organizations helped affected countries resume activities in agriculture, fisheries and forestry with the aim of restoring shattered livelihoods.

Several projects were initiated to assess the damages in all the affected countries covering all sectors. The data collected from these studies served as baseline information for planning, coordination and implementation of tsunami emergency and rehabilitation operations. However, due to the increasing number of emergency and rehabilitation projects in all the affected countries, it was important to coordinate the activities for efficient use of funds and to provide the required assistance in a timely manner.

To facilitate the coordination of rehabilitation and reconstruction activities, the respective governments established emergency committees, followed by more institutionalized units such as Disaster Management Centres, Task Forces and Bureaus. For effective coordination and planning of future rehabilitation activities, information and information management are essential prerequisites. In this context, FAO initiated a regional project entitled “Regional Coordination and Information Management on Strategies for Early Recovery of Agriculture in Coastal Regions” to focus on improving the information systems and institutional capacity of the tsunami affected countries to support their efforts for medium to long-term planning and to coordinate, monitor and implement livelihoods rehabilitation interventions (specifically relating to matters that involve all three sectors, i.e. agriculture, fisheries and forestry).

Through this project, substantial support was provided in consolidating, analysing and reporting the available information as well as providing advice on the key issues related to rehabilitation such as gaps in knowledge or targeting, trends and best practices. The activities initiated by the project fall into two broad categories: i) collection, synthesis and dissemination of relevant information (such as assessments, rehabilitation activities, best practices and guidelines) and ii) strengthening of information, communication and coordination systems at national and regional levels and strengthening of related institutional capacities.

With these issues in focus, the FAO Regional Office for Asia and the Pacific convened a regional workshop to bring together national and international institutions and organizations from Indonesia, Maldives, Sri Lanka and Thailand to assess the present status of coordination activities, and to share experiences and knowledge for development of future plans and strategies for coordination and information management towards the longer-term rehabilitation of the agriculture fisheries and forestry sectors.

Goal and objectives of the workshop

The overall goal of the proposed workshop was to examine and review the current situation with regard to coordination and information management in tsunami rehabilitation activities of the agriculture, fisheries and forestry sectors and to use the lessons learned for planning future interventions for sustainable development of all three sectors.

The specific objectives of the workshop were to:

- review the progress and achievements of the FAO project on information management and its impact on national efforts to manage information and coordinate rehabilitation activities;
- review the information management and coordination efforts in each participating country including those implemented by the governments and other stakeholders in tsunami emergency and rehabilitation activities; and
- discuss the way forward in terms of information management, exchange and coordination mechanisms for future work, especially moving from rehabilitation to longer-term development initiatives in agriculture, fisheries and forestry.

Outputs

The workshop provided an overall summary of the status of coordination and information management of tsunami rehabilitation actions in the agriculture, fisheries and forestry sectors as a basis for discussion and formulation of a strategy to address outstanding issues. On this basis, the outputs included:

- Progress, achievements and impact of the FAO information management project assessed.
- Overall status of the coordination mechanisms and information management in each country reviewed and their future directions identified.
- Opportunities for further development and improvement of coordination mechanisms best suited for each country in line with the “build back better” strategy identified.
- Various options and mechanisms for coordination and exchange of information amongst affected countries and collaborating institutions and organizations identified.

Partners and participants

The workshop and follow-up activities were conducted in collaboration with experienced and qualified staff of government agencies and international organizations in Indonesia, Maldives, Sri Lanka and Thailand. This workshop gave priority to participation and presentations of those stakeholders who have dealt with coordination of rehabilitation activities at the field level.

The proceedings

How the proceedings are organized

These proceedings follow the chronological order of the presentations and discussions as outlined in the Agenda (Annex 1). The workshop followed the agenda as outlined with only minor changes.

Day 1: Sharing and exchanging information

Day 1 comprised presentations by representatives from government ministries, FAO and other stakeholder institutions. The purpose of the presentations on Day 1 was to facilitate an exchange of information among the participants and provide the “raw material” for the group discussions on Day 2.

Each presenter was allocated 15 minutes for presentation plus an additional 5 minutes for questions and clarifications. Presenters and session chairs did an admirable job of keeping to the time limitations.

The presentations were meant to summarize and highlight the main issues discussed in the written papers requested from the participating ministries, organizations and individuals (Annex 4). Authors were given detailed guidelines in advance of the workshop and asked to structure their papers according to the following points:

- What coordinating body or bodies were responsible for handling the tsunami *emergency* aid? Review of institutional structure, achievements and weaknesses.
- What were the lessons learned from the tsunami *emergency* and *rehabilitation* period with regard to aid coordination and its accompanying instruments including information management?
- What has been done or needs to be done to ensure that the lessons learned become institutional memory in the government ministries and line agencies and that policy-makers and managers in disaster and relief operations will take heed of these lessons in the future?
- What is the vision and strategy of the government ministries with regard to coordination mechanisms and accompanying information management mechanisms in the transition from rehabilitation to development activities in the tsunami affected areas in light of the “building back better” strategy.

Day 2: Discussions and conclusions

The first session of Day 2 was given to specialists in spatial information to share their experiences and knowledge of approaches to information management. There were three presentations in all and these are summarized in the sections below.

Following these presentations, the participants broke into groups. Each group received a specific task and a set of general instructions (Box 1).

Group Tasks

Group 1

As a result of the tsunami, everyone has something in place now. Use the checklist provided (Annex 3) as a tool to evaluate where your information management and coordination system is at present and what you need to do to ensure your system remains in place and is effective for the next disaster.

Group 2

The overall goal of the FAO project was to enhance the capacity of governments to coordinate tsunami assistance and manage information. What were the achievements of the FAO OSRO/RAS/503/CHA project and how was its impact perceived by the Ministries? Of these achievements, which ones are sustainable? Which ones will governments maintain and further develop? Review the coordination role of FAO in the tsunami emergency and rehabilitation activities.

Group 3

Discuss the way forward in terms of information management, exchange and coordination mechanisms in the transition phase from rehabilitation to development and longer-term projects in the sectors of agriculture, fisheries and forestry. How will the existing coordination mechanisms evolve in the post rehabilitation environment? How will they serve the long-term vision of development? Is there a vision?

Group 4

What are the values and benefits in a regional (southeast Asian-wide) approach? Are there potential drawbacks to regional approaches? Who are the regional actors? Are countries building back better or just building back (i.e. replacing losses)?

Reporting back and final plenary

Following the discussions, group rapporteurs reported back in plenary using their MS Word or PowerPoint notes prepared by the note taker. Conclusions were formulated in a final plenary discussion.

Day 3: Site visits and closing

Site visits are an important element in a workshop. They offer an invaluable opportunity for participants to see first-hand what their counterparts are doing in other countries and other Ministries and help strengthen professional connections. On the third and final day of the workshop, participants made site visits to:

- Land Development Department (LDD), Thailand
- Department of Fisheries (DOF), Information Management Unit, extended to Agriculture and Forestry, Thailand
- Geo-Informatics and Space Technology Development Agency (GISTDA)

Following the site visits, participants attended a closing luncheon at Pola Pola Restaurant where the workshop was officially closed.

Annexes

The following additional information is provided in Annexes to this report.

Annex 1: Welcome address

Annex 2: Workshop agenda

Annex 3: List of participants

Annex 4: Checklist of steps and mechanisms needed for a viable and sustainable information system

Annex 5: Papers

Annex 6: Excerpts from key regional meetings convened by FAO in 2005 and 2006

The presentations in brief

This section gives an abstract of each presentation in the order in which they were presented. With one or two minor exceptions, Ministry representatives from each country presented first, then FAO representatives. The papers are discussed in a separate section of these proceedings. The full papers are in Annex 4. The PowerPoint presentations are available on CD ROM or on request from FAO or from the authors (see Annex 2: List of participants).

Session 1	Past and ongoing activities. Major constraints and future plans (Country presentations)
	Chairperson for the sessions from 09.35 to 13.30 – Mr Udhoro Kasih Anggoro

Some common threads

Whilst each country and region has unique social, economic, cultural and geographical features and experiences varied, there were a number of common threads running through the presentations.

- The value and importance of information and information management is not widely appreciated by planners and decision-makers. Too few resources are allocated to information management and coordination in the early phases of operations both by international donors as well as the concerned governments and implementing agencies. The tsunami disaster has had some effect on this perception, but those in the field must continue to lobby for funding and other forms of support and continue their awareness raising activities.
- Workshop participants felt that a considerable achievement of the project has been to get people talking about improving data collection. The same data useful in emergencies is also useful for other, non-emergency projects. Agencies involved agree that more resources should be made available for this kind of work.
- The state of readiness before a disaster strikes includes the available information, the state of information management systems, and the capacities of people involved to use those systems and is a significant determining factor in how quickly and effectively agencies can respond.
- The tsunami highlighted, once again, the importance of effective links between central government agencies, local NGOs and communities. “Participation” and “participatory approaches” were mentioned repeatedly throughout the workshop.
- Emergency response, rehabilitation and recovery are distinct phases but they are linked. Aspects of rehabilitation and recovery need to be addressed as early as the emergency response phase. Recovery includes issues that extend far beyond the disaster zone.
- Continued international donor assistance is needed to follow up on the many initiatives undertaken in the rehabilitation phase to ensure the “better” in the “building back” slogan.

Maldives	Ministry of Fisheries, Agriculture and Marine Resources
Fisheries and Agriculture	Zaha Waheed – Deputy Director, Planning and Coordination Services and Aminath Rishaadh – Assistant Data Processing Officer

“In a disaster, we need rapid disbursement arrangements, but few donors have the capacity to respond like this.”



The Maldives is a Pacific archipelago of around 1 200 islands. The population of just under 300 000 people inhabit about 200 of these. Before the tsunami, Maldives was experiencing an average annual growth rate of about 7 percent. Tourism and fisheries were and remain the main industries.

Only nine islands escaped flooding when the tsunami struck. One third of the entire population were affected and it is estimated that 62 percent of the GDP was wiped out by the disaster. The Government immediately established a National Disaster Management Centre to coordinate relief and to gather information. The presentation describes these efforts in detail.

The lack of pre-tsunami data was identified as one of the major constraints in delivering relief, along with the communication and transportation difficulties. A short-term strategy for relief (to June 2005) was formulated and focused on replacing critical infrastructure, micro-financing, replacement of fishing vessels, community development and damage assessment to marine resources. The medium-term plan took recovery planning to December 2006 and focused on rebuilding the fisheries sector.

The presentation offers an informative list of lessons learned, chief among them the value of information management and readiness in terms of capacity to respond to disasters. The Maldives is now formulating a “Safe Islands” programme. The programme will facilitate population movement to larger islands to accelerate social and economic recovery and sustain development. The National Disaster Management Centre is now a permanent institution tasked with preparing a comprehensive National Disaster Preparedness Plan.

Thailand	Department of Agriculture Extension (DOAE), Ministry of Agriculture and Cooperatives
Fisheries	Anan Lila – Director, Planning Division and Apinan Kamnalrut – National Consultant, FAO

“The programme was carefully planned with consideration for transition from an early input delivery phase to medium and long-term rehabilitation phases.”



In Southern Thailand, six provinces were affected by the tsunami. Over 5 000 people died, many of them visitors to Thailand. Over 100 000 people were directly affected. This presentation outlines the Royal Thai Government – FAO institutional response and details of the Department of Agriculture and Extension response. Factors contributing to the success of programme responses include:

- early position in damage and needs assessment
- strong relationship and joint coordination of FAO and MOAC
- decentralization of authority for implementation
- frequent field visits from FAO national and international consultants contributing to strong partnerships

In the reconstruction phase there is an emphasis on self-reliance and income generating activities as illustrated by the hydroponics gardening project. Ongoing development is being supported by a five-year regional project funded by the Japanese Government. The project will emphasize the long-term continuity of post-tsunami rehabilitation projects and an integrated development approach in agriculture, fisheries and forestry.

Sri Lanka	Ministry of Agriculture
Agriculture	Shantha Emitiyagoda – Deputy Director Extension, Department of Agriculture

“There was difficulty in collecting information soon after the tsunami as some farmers were displaced and were in a temporary camp at the time of data collection.”



This presentation describes some of the difficulties involved in gathering much needed data under post-disaster conditions. Based on this experience, the author offers a number of useful policy implications regarding:

- coordination among GOs, NGOs, IOs, INGO, PS (national and sector level),
- soft loan schemes for replacing equipment, seed and livestock, and
- priorities for restoring damaged infrastructure.

Indonesia	Ministry of Agriculture
Agriculture	Udthoro Kasih Anggoro – Executive Secretary, DG of Food Crops

“Information tends to come from formal institutions but is needed from the field.”



In this presentation, the author describes how in February 2005, the Ministry of Agriculture developed a five year plan for agricultural rehabilitation and reconstruction for the people of NAD and Nias (R3MAS) and its three components:

- land capacity rehabilitation for rural economic activities,
- rehabilitation and support for agricultural services (physical and human resources), and
- people empowerment, technical, and organizational support.

Information management and coordination activities are described in detail. The main obstacles are noted and recommendations offered.

Obstacles	Recommendations
Information tends to come from formal institutions but is needed from the field.	Empower communities to build sustainable rural networks.
Institutional reorganization, language barriers and inadequate infrastructure are obstacles to coordination.	Have information on the socio-cultural dimensions of coastal areas.
Uncoordinated “cash for work” programmes can cause problems.	Translation facilities should be expanded, so that both local and international parties can contribute to the key deliberation processes.
Ethnic minorities have special needs that require specific strategy and policy approaches.	

Thailand	Past and ongoing joint activities of DOF-FAO in post-tsunami rehabilitation programmes and achievements in fisheries sector in Thailand
Fisheries	Department of Fisheries, Ministry of Agriculture and Cooperatives Waraporn Prompoj – Chief of International Cooperation Group and Suchint Deetae – National Fisheries Consultant, FAO

“All 28 beneficiary groups set up separate revolving fund accounts for loan repayments. As of July 2006, more than half of the groups had made repayments in accordance with the targets.”



The tsunami caused severe damage to coastal communities in six provinces on the Andaman Sea of southern Thailand. In the fisheries sector, 900 large vessels and 6 500 small fishing boats were lost.

Over 1 800 fisher families received emergency supplies of fishing inputs and restarted fishing activities. The majority of beneficiaries (89 percent) reported monthly average incomes of 4 000-8 000 Baht (US\$100-200) more in earnings than before the tsunami.

Post-tsunami problems were mainly related to increased fuel and living costs, lower income from fishing, uneven distribution of aid, lack of coordination between aid agencies, conflicting land use right, physical alteration of coastal areas, and increasing number of fishers. Difficulties encountered in the implementation phase of the projects included:

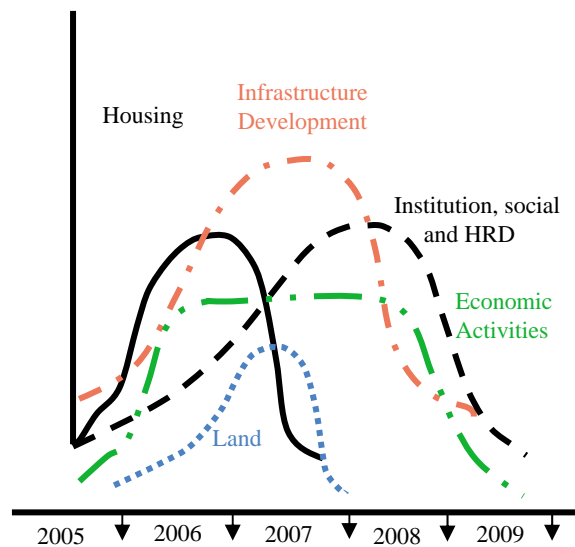
- high mortality rate of sea bass fingerling due to long distance transportation and other factors,
- stormy weather during southwest monsoon (April-October) hampered fishing, and
- difficulties at the beginning in accepting the cost recovery programme by some new fishing groups because many other tsunami emergency projects provided inputs free of charge.

Based on these experiences, it was suggested that government policies should promote:

- diversification of livelihoods of fishers and communities,
- community based fisheries management approaches,
- adoption of zoning and development of a management plan for the Andaman fishery,
- strengthened fisheries data information system for communication and dissemination, and
- improved marketing of fishery products.

Indonesia	Strengthening government’s role in information management and coordination mechanisms in the fisheries sector rehabilitation programme in NAD and Nias post-tsunami
Fisheries	Ministry of Marine Affairs and Fisheries Hadimulyo Mulyono – Assistant Minister on Cooperation and Inter-agency Relations

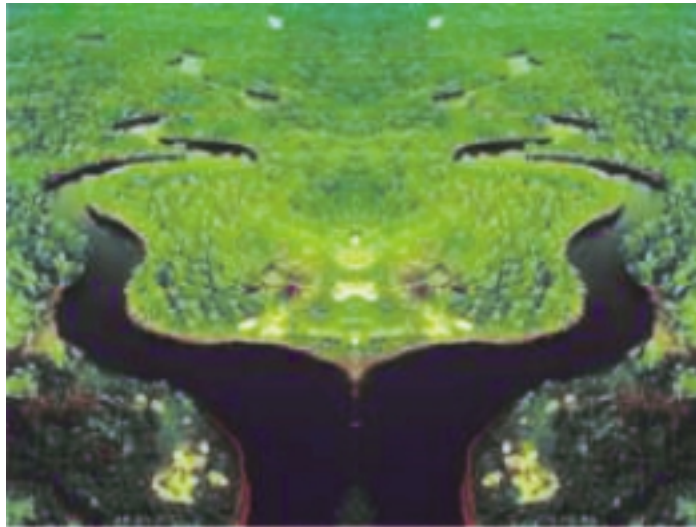
“We need to look beyond replacement to sustainable solutions, not just “building back better” but building a better Aceh.”



The background section outlines the institutional context of the Programme Management Unit and Task Force set up to coordinate assistance, its role and the main agencies involved. The principles and strategies for rehabilitation and reconstruction are outlined, followed by a brief description of the phasing. Budget and project details, key issues, and best practices are listed. The final two slides offer practical suggestions for development in the years ahead. One of major recommendations is to look beyond replacement to sustainable solutions; i.e. not just “building back better”, but building a better Aceh.

Indonesia	Rehabilitation of degraded forest and land in tsunami affected areas in Indonesia
Forestry	Ministry of Forestry Saeful Rachman – Directorate General of Land Rehabilitation and Social Forestry

“Mangrove and coastal forests protect people and assets from costal hazards. Therefore, their rehabilitation is an important activity in tsunami affected areas in Indonesia.”



There are 9 million hectares of mangrove forest in Indonesia. The Board of Rehabilitation and Reconstruction (BRR) of Aceh-Nias (2006) estimates the tsunami caused an additional 105 000 ha of damage to mangrove forest and 67 000 ha of coastal forest. Since the disaster, the Ministry has taken a number of actions, including: improvement of data and information gathering, training for local staff of government and non-government organizations, local communities; rehabilitation of degraded state forest and community lands; improved coordination among institutions involved in forest rehabilitation and forestry sector development; and a National Strategy for Mangrove Management. Some of the elements of this strategy include: raising awareness and capacity building of stakeholders; developing information networking among stakeholders; establishing provincial, district and city spatial plans including protection zones and green belt along coastal areas; developing an integrated coastal development master plan, management plan and site technical designs involving local people; and developing clear rules of the game among stakeholders in implementing coastal forest management.

Sri Lanka	Information management and coordination for better livelihoods in relation to forestry in tsunami affected areas
Forestry	Ministry of Forestry P.A.G.S. Nandakumara – Assistant Conservator of Forest, Forest Department

“To improve the livelihoods of the tsunami affected population, information gathering and management and effective coordination mechanisms with all stakeholders are essential requirements.”

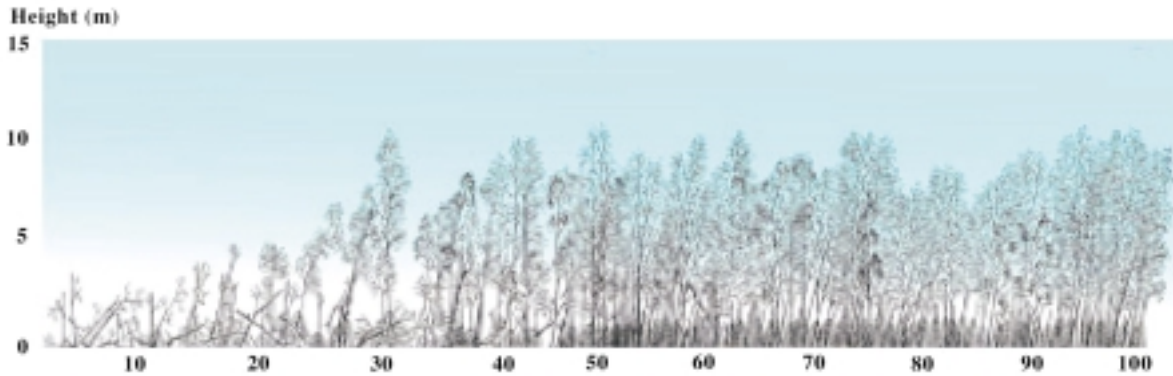


This presentation offers an informative and detailed overview of the extent of mangrove forests in Sri Lanka, the benefits mangroves provide to a wide range of stakeholders and the extent of the damage caused by the tsunami.

The vision of the forestry department is sustainably managed forest and tree resources for providing environmental services and meeting needs of forest products for the country while contributing to the national economy and well being of the people. For each of its objectives (protection, production, benefits to the economy and benefits to communities), the department has identified specific information needs.

Thailand	Post-tsunami rehabilitation in the forestry sector in Thailand
Forestry	Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment Sonjai Havanond – Coastal and Mangrove Resources Management Expert

“A 100 meter belt of dense mangroves would absorb enough wave energy to mitigate further inland damage.”



In Thailand’s coastal provinces, a rapid assessment of the damage caused to coral reefs, sea grass beds and mangroves forests indicated direct economic losses of over 30 million US dollars. In collaboration with FAO, UNDP and a number of Thai government agencies, the Department of Marine and Coastal Resources responded with programmes for immediate impact assessment of ecosystems and biodiversity and coastal habitats; action plans to rehabilitate and improve coastal resources and evaluation of innovative rehabilitation techniques including demonstration sites for reef rehabilitation and reforesting mangroves and beach forests, and marine park management focusing on land use control and sustainable tourism development. Activities were undertaken in the areas of ecological studies, economic studies, Remote Sensing and GIS training programmes, public awareness campaigns, a national workshop and formulation of a long-term rehabilitation framework and action plan. The main needs and requirements for future management of coastal natural resources were identified as: strategic management (top down vs. bottom up, people’s participation); information (research and development, baseline surveys, databases, GIS); a community-based management plan; and ecosystems based co-management.

Sri Lanka	Livelihoods recovery: The role of RADA and the income recovery programme
Coordination	Reconstruction and Development Agency (RADA) M. Mazahim Hanifa – Livelihood Economic Recovery Officer



An estimated 35 000 people died in the tsunami in Sri Lanka. Another million were displaced and over 200 000 livelihoods affected. In response to the disaster, the Government created the Reconstruction and Development Agency (RADA) by merging the Task Force to Rebuild the Nation (TAFREN) and THRU, “...to carry out reconstruction and development work of the district affected by human made or natural disasters cost effectively and expeditiously”. RADA has a broad mandate to develop and execute action plans for reconstruction and development work, to implement appropriate relief measures for livelihoods improvement, promote investment and liaise with line agencies, Government authorities, private sector organizations, non-governmental organization and other relevant agencies.

Toward this end, Divisional Livelihoods Development Plans are designed to be needs-based, participatory and inclusive. Some of the key characteristics and outcomes of these plans are provided in the presentation.

Indonesia	Information management and coordination mechanism of the tsunami emergency and rehabilitation operations in agriculture, Fisheries and Forestry
Coordination	Rehabilitation and Reconstruction Agency (BRR) for NAD-Nias Said Faisal – Deputy for Economic and Business Development

“At the time a common metaphor used to describe BRR’s position was: We are building the ship while sailing on the seas.”



In Aceh, the tsunami affected 1 500 villages in 15 districts along 800 km of coastline. Over 60 000 ha of agricultural land were damaged and over 220 000 people had to rebuild their lives and livelihoods. As part of the ongoing recovery process, the Rehabilitation and Recovery Agency (BRR) was established in April of 2006. Its mission: to restore livelihoods and strengthen communities in Aceh and Nias and to coordinate and implement rehabilitation and reconstruction projects in the region.

This presentation outlines the implementation and coordination process and provides details on spending and progress towards programme targets in the three sectors. The section on Information Management outlines the RAND database, how it is used for collecting, tracking, analysing and displaying project and funding information, the reporting requirements and reporting process, and the benefits of using the system.

The coordination section of the presentation describes four significant developments: Concept Note Process, Portfolio Management, Regional Management, and Lead-donor Roles in the recovery phase.