



TRINET NEWSLETTER
January 2007

Ensuring Ecological Security



Moving on

The second anniversary of the tsunami disaster was observed last week. Driving through areas that even a year and a half ago were full of

ruins – of houses and fishing craft - it was good to see the new solid-looking houses, schools and vocational training centres dotting the landscape and the rows of brilliantly coloured fishing craft moored against the bridge or drawn up along the shore in the Cuddalore-Puducherry-Nagapattinam stretch. Agricultural areas too appeared beautiful in varying shades of green and yellow with the crop being harvested or ready for harvest.

Most reports from these areas are also quite upbeat, talking of solar fish dryers, fish pickle industries and dairy cooperatives that have come up to add value to the primary produce of the area, of people trained in new vocations and of knowledge-centres where young men talk casually of using photoshop and satellite imagery to locate fish and children use MS-paint to draw their dream house.

The two years have been a learning period for all of us. From relief and rehabilitation, we have now moved on to the long term development phase. Every one of us has a list of 'lessons learnt'; (see the useful reads section for the list from the UN's special envoy and others). The words may change, the emphasis may change, but overall the lessons are the same.

Sustainable development

In the long term 'development' phase, the emphasis has to be on sustainable development practices that will build resilience amongst those most vulnerable to natural disasters. Sustainable development is "development that meets the needs of the present

without compromising the ability of future generations to meet their own needs" as defined by the WCED in 1987. Roughly, it can be construed as proper access to 'roti, kapda aur makaan', where makaan is now

access to disaster resistant houses with sanitation facilities, and roti-kapda is access to proper livelihoods. For this is one way we reduce vulnerability of people – by ensuring secure livelihoods. Beginning from access to good and appropriate education to making available basic necessities of life such as safe water and sanitation to safe credit and meaningful employment, the livelihood aspect has to be looked at from a holistic as well as long term view for that is what will ensure sustainable development.



Of the many dimensions of sustainable development, three: environmental, economic and social, are possibly the most important because of their extensive interlinkage and interdependence. We are now realizing the increasing importance of maintaining the quality of *environmental resources* –including not just the conventional natural resources such as minerals and forests but also those that support life and livelihoods on earth by providing 'free services' ranging from oxygen replenishment to water and mineral cycling to climate control.

- The real disaster preparedness is to reduce environmental vulnerability and increase ecological resilience instead of increasing environmental vulnerability and risks by externalizing environmental costs from the calculus of economic growth.
- Ecological resilience, not economic growth, will be the real measure of human survival in these uncertain times.

Vandana Shiva

(<http://www.zmag.org/Sustainers/Content/2005-01/23shiva.cfm>)

Ecosystem resilience

The general feeling is that impact of natural disasters has increased in the last few years. Analysis has shown that it is not really the intensity of the natural disasters that has increased *per se*, but that the natural buffers that protect human beings from natural disasters have degraded to such an extent that they are protective no more. This is especially obvious in the coastal areas, home to a huge proportion of the populace and where natural ecosystems have been most altered to suit human needs.

- While we cannot do away with natural hazards, we can eliminate those that we cause, minimize those we exacerbate, and reduce our vulnerability to most. Doing this requires healthy and resilient communities and ecosystems. Viewed in this light, disaster mitigation is clearly part of a broader strategy of sustainable development—making communities and nations socially, economically, and ecologically sustainable.
- Instead of relying on structural engineering, the time has come to tap nature's engineering techniques— using the services provided by healthy and resilient ecosystems. Dunes, barrier islands, mangrove forests, and coastal wetlands are natural shock absorbers that protect against coastal storms. Wetlands, floodplains, and forests are sponges that absorb floodwaters. Nature provides these valuable services for free, and we should take advantage of them rather than undermining them.

Janet Abramovitz, "Unnatural Disasters", Worldwatch Institute, 2001

The conversion of mangroves into shrimp farms, habitations and tourist spots has brought wealth to a few but made thousands vulnerable to natural disasters such as tidal waves and cyclones apart from resulting in reduced habitat availability for important food-fish and thus impacting fisheries and allied livelihoods. Scientists have clearly shown that dynamiting for fish, dumping of sewage, and physical breakup of coral reefs have resulted in increased impact of waves on the shore and that areas with intact coral reefs suffered less during the tsunami. Shrinking of wetlands and catchment areas, as well as poor maintenance of natural and artificial drainage has led to increased flooding during the monsoon rains – making agriculture precarious.

It is not as if ecosystems are not impacted by natural disasters such as cyclones, hurricanes or even tsunamis. But it is a fact that the resilience of intact or healthy ecosystems to natural disasters is higher than when the ecosystems are damaged or degraded by humans. To put it briefly, it is time we understood and accepted the fact that every activity

of ours impacts the environment and is impacted by it. Maintaining healthy ecosystems around us is crucial for maintaining healthy human societies, we are dependent on natural ecosystems for our very survival – from production of food to degradation of wastes. If we are serious about improving human resilience and reducing vulnerabilities to natural disasters, we need to ensure maximum protection to natural ecosystems for their resilience will be our margin of safety in the recovery process from disasters.

Social Memory

It is now well known that many tribal groups escaped the tsunami by reading the signs on the shore: the withdrawal of the sea before rebounding in terrifying impact – an excellent example of social memory at work. At a workshop discussing the status of rehab in the Andaman and Nicobar Islands, a delegate narrated a story about women and turtles. Apparently, shortly after the tsunami hit the islands, turtles which were part of the diet of a group of people in an island were brought in by the men in a rather emaciated condition. The women of the community insisted that they be let free and also declared a ban on turtle hunting for a few months. Why? Their reasoning was that the sea grass beds in which the turtles lived had been destroyed in the earthquake and tsunami and hence the turtles were starving. It would be wiser to avoid turtle hunting for the next few months allowing a natural recovery of the ecosystem.

At another meeting, there was a description of an area that was not much affected by the tsunami because of well protected sand dunes. In fact, the local villagers had a practice of planting palmyra leaves along certain areas of the coast to encourage sand piling up and dune growth to form a natural barrier between their homes and the sea in turmoil. At a meeting on agriculture, delegates from Assam showed pictures of paddy varieties that grew in flooded areas prompting some traditional farmers from Tamil Nadu to say that those who grew paddy in lake bunds here once used to grow tall varieties that held their heads above water during floods.

Social memory comes from the diversity of individuals and institutions that draw on reservoirs of practices, knowledge, values, and worldviews and is crucial for preparing the system for change, building resilience, and for coping with surprises.

Social-Ecological Resilience to Coastal Disasters by Neil Adger et al.,
<http://www.sciencemag.org/cgi/content/full/309/5737/1036>

Why have all such practices been reduced to stories? Even a skimming at the surface of the kind of education children receive today at schools and their changing attitudes towards elders clearly shows the reason – the mistaken belief that traditional practices are meant only for old folks and that informal knowledge has no value; that science and technology will help us overcome everything. We need to realize that traditional practices have been developed by centuries of practice, observation and learning by those close to nature, as it were. Perhaps research and analysis into these practices that gives the scientific rationale behind them will help in improving their acceptance, and inculcating respect for elders who have learnt from sheer experience will allow the continuance of social memory that will serve in addition to 'scientific' warning systems.

Building ecological security

"Good recovery must leave communities safer by reducing risks and building resilience" is the tenth of the recommendations of the UN Special Envoy for tsunami recovery. Perhaps it should be the first.

As part of the recovery process, disaster preparedness is being given a lot of importance and enormous funds and efforts are being channeled for this. Here, disaster preparedness has been equated with developing early warning systems such as deploying deep sea buoys to provide alerts on wave changes on the sea floor to predict tsunamis, drills on evacuation procedures and so on. However important these are in the short-run, it is practices that ensure that natural ecosystems are intact and resilient enough to withstand natural disasters and exert buffering effect on human settlements and the natural livelihood sources that we depend on, that

are crucial in the long run. This, in essence, is what is meant by **ensuring ecological security**.

It is good to know that some effort is being channeled into this as well. For example, a series of meetings along the coast with fishermen has clearly indicated that they are concerned about the depletion of resources. They have the knowledge and also have a long term stake in ensuring that their livelihoods are protected and hence, they should be part of resource management strategies. Similarly, the organic farmers' movement has shown how holistic agricultural practices are what build resilience amongst the small and medium farmers who make up the bulk of those dependent on agriculture especially in India. It was also heartening to hear about the forest department's plans for coastal restoration which are not confined to planting casuarinas but appropriate forestry with community participation and other initiatives which, if properly planned and implemented, will surely help in mitigating future disasters.

Disaster resilient coastal zones are those where:

- There are areas of natural vegetation deliberately maintained under effective management plans. Mangrove forests and forests on dunes may play an especially important protective role.
- Areas of high risk have been identified and incorporated into land use plans. E.g. these may be coastal areas without fringing coral reefs and with shallow water off-shore and gentle on-shore topography.
- Buffer zones have been re-established in areas of high risk where natural vegetation has been cleared.
- There are effective management structures for sustainable resource use (eg. Local community, government agencies).

IUCN Information Paper, Feb 2005.

Reconstruction in the A&N Islands

The Andaman and Nicobar Islands, an archipelago located in the South-eastern part of the Bay of Bengal, were devastated by the earthquake and subsequent tsunami on 26 December 2004. Official reports mention more than 3500 persons as dead or missing, unofficial estimates put the figure far higher.

The government reconstruction programme to replace nearly 10,000 homes that were destroyed has thrown up many important issues. Major concerns voiced by communities include the design, location and cost of proposed housing and the lack of scope for them to be involved in the process.

This report presents findings from consultations with communities on three islands. From the southernmost and hardest hit island of Campbell Bay, home to people from the Nicobarese tribe, to Little and South Andaman where number of deaths was fewer but damage to homes and livelihoods extensive. Interviews were also conducted with officials and contractors.

Housing design

Despite the diverse backgrounds and wide range of lifestyles of communities in A & N Islands, government plans propose a single type of house for all 9714 families. The only variation is that the

same houses will be on stilts in Car Nicobar. The reconstruction programme guided by the Indian Planning Commission and Empowered Group of Ministers has been entrusted to central and local government agencies (CPWD and APWD) and NGOs. All the houses are to be built as per the design, specifications and technology finalised by CPWD whether being constructed by CPWD (7889 units), by APWD (1066) or NGOs (759).

Information and participation

Information is the first pre-requisite for any effective participation but communities have little information about their inclusion in the programme, location of the settlements, their own plots, house designs, materials that are being used or the roles and responsibilities of contractors and implementing agencies.

Location

Affected communities have no information about the propose site location or specific plots for their new homes. Though a few people have seen the prototype houses built by the Government, they have rejected it. The final design, materials and specifications is not known to them. Non-tribal communities have rejected the house because it does not suit the location for their agriculture or fishing activities. Tribal communities in locations like Harminder Bay have also made it clear that any location other than where they presently stay is not acceptable.

Land rights

Use of land around the home is crucial to securing the housing rights of tsunami survivors but it is not clear whether the affected families will be provided any ownership to the homestead plot.

People's perspective

People prefer the traditional house design and materials and would have preferred if cash or material support was provided. They would have built a larger-sized house of their own choice in a lesser amount. But the present construction plan does not allow that.

Based on the above, a set of ten recommendations have been made under the following heads:

- (1) Policy framework;
- (2) Transparency on entitlements;
- (3) Suitable location;
- (4) Information;
- (5) Women's property rights;
- (6) Housing modifications;
- (7) Monitoring construction;
- (8) Promoting local building practices;
- (9) Environmental protection and
- (10) Decentralized basic services.

(extracted from the Executive Summary)

The complete report can be read at

<http://an.trinet.in/xoops-2.0.16/htdocs/modules/mydownloads/visit.php?cid=1&lid=3>

TRINet has created a website for information on the recovery process in the A&N Islands which can be accessed at <http://an.trinet.in>. A simple registration process allows you to access documents that have been uploaded on this site.

Workshops...

TRINet in collaboration with the Project Management Unit (ETRP & TEAP), Government of Tamil Nadu organized a day long workshop and consultation on "**Water and Sanitation in post-tsunami reconstruction: Understanding plans and identifying solutions**" at the TWAD Board Training Hall on 14th December 2006.

The objectives were to bring together the implementing agencies, consultants, academics and researchers, NGOs and CSOs involved in designing and implementing water supply and sanitation projects so as to understand the plans for the various sites where houses are being constructed for tsunami affected people, the



TN government guidelines for sanitation and to share experiences of those who have worked in these areas.

The workshop was inaugurated by Thiru C.V. Sankar, IAS, OSD (R&R) and Project Director (ETRP & TEAP). He began by saying that sanitation is one of the key areas with over 64% of houses having no toilets. The percentage was higher in coastal areas and this was a clear case of neglect on the part of everyone concerned – the government, the community and the people themselves. Sanitation was of crucial importance in

the tsunami rehab sites and the situation was compounded with the low lying nature of the land, high groundwater table, soil permeability issues etc. There was a need to put up systems that were

simple and easy to maintain. Thiru Sankaran who spoke on behalf of the Managing Director, TWAD Board gave a summary of the activities of the TWAD Board with respect to the relief activities in the aftermath of the tsunami disaster which included immediate provision of drinking water to the affected communities by means of tankers and also going ahead with the repair of the various water supply schemes that had been damaged by repairing pumps and pipelines. Mr Prashant Hedao, Steering Committee member of TRINet outlined the objectives of the workshop. He said that three components could be visualized: technical solutions, implementation and social component. A good technical solution that was badly implemented would be useless.

The first session was chaired by Dr K. Thanasekharan, Director, Centre for Environmental Studies, Anna University. He said that Water and Sanitation are two important components and there is a need to plan what is suitable for the community. It had to be technically feasible, environmentally compatible and socially acceptable having to fit into the regular habits of the community. The first presentation in this session was by Thiru Rajkumar of the TWAD board giving an idea of the role played by TWAD board in the relief operations in the aftermath of the tsunami in ensuring protected water supply to the affected people. His presentation was divided into two parts – the first one gave information on the schemes planned for water supply with ADB assistance and the second was about the sanitation systems to be built in 200 locations in the reconstructed settlement sites.

Thiru R. Pannirselvam, a well known consultant who has prepared the sanitation guidelines on behalf of the PMU for the ETRP divided his presentation into six parts, beginning with what is sanitation and why is it needed and finally ending with an algorithm that he has developed to help choose the right system of sanitation for a particular area. He has suggested the use of Dewams or decentralized waste water management system, which could be executed even in areas with almost no gradient as it involved only the collection of wastewater.

The last presentation in this session was by Dr R. Sivacoumar, Scientist from NEERI's Chennai Zonal Laboratory who made a presentation on the sanitation guidelines for

settlements with more than 200 houses. The main objective is to ensure that there should be no contamination of groundwater or surface water or surface soil; and the system should be easy to maintain. The guidelines could be broadly classified into engineering, environment, process and cost considerations. As for STP, the current preference was to go in for modular units that could be scaled up when needed. The FABR system proposed by NEERI was a well known technology and was compact in size and hence preferred because of the shortage of land in the tsunami affected areas.

The discussion that followed lasted more than an hour and was highly participatory. At the end, Dr Thanasekharan summed up the discussions and said that contact had been established between beneficiaries and the experts and this had to be continued. Technically too a lot had been learnt from the presentations and this learning should also be continued.

The afternoon session focused on waste treatment systems. Prof A.R. Santha Kumar, Professor Emeritus, IIT-Madras and Consultant, UNDP, was Chairperson. He initiated the session by outlining some good practices in coastal areas for construction of sanitation facilities. Mr Paul Calvert of Ecosolutions and Mr Subburaman of SCOPE explained in detail the concept of Ecosan, the functioning of the system and their own experience in convincing people and communities in the use of ecosan. This system was sparing in the use of water and also recovered safely valuable nutrients that would otherwise go wasted.

Dr Lucas of Auroville explained the concept of Dewats, or decentralized wastewater treatment systems, based on experience of CSR, Auroville. Dewats does not compromise with standards. What is aimed from this system is lower power supply needs to maintain the system. Systems fail because of requirement of highly skilled operators, chemical inputs etc. Requirements in O&M should be as low as possible and there should be reuse of water as close as possible. Dewats is not defined by any particular elements. Thus a biogas digester becomes part of a dewats system. Auroville had constructed portable systems for the tsunami affected which could initially be used in the temporary shelters and later moved to the permanent settlements. Mr



Ganapathi of Exnora shared his personal experience of the dewats system functioning in Trichy.

The last presentation was by Dr Sivacoumar of NEERI who spoke on fluidised aerobic biological reactor (FAB Reactor), a modular design suggested for 49 sites. The choice is based on space constraint. The system was based on proven technology, was low on maintenance, and generated less sludge and would meet the stringent standards of the TNPCB in terms of BOD and suspended solids.

In the panel discussion, Dr A. Navaneetha Gopalakrishnan raised some issues regarding each type of sanitation system and Mr Vivekanandan raised issues about governance and the ability of local bodies to maintain such systems in future. The

open discussion that followed was participatory and many participants expressed the importance of raising awareness for the sanitation programme to be successful. Dr Santha Kumar summed up saying that there had been a good discussion on various issues and the various treatment systems. Decisions would have to be taken based on ground realities and the process taken forward. Closing remarks were made by Mr C.V. Sankar who called on the TWAD board to share information on the systems planned for the different areas so that awareness could be created amongst the communities and proper access to sanitation would be ensured.

A detailed report of the workshop is available on the TRINet website at <http://www.trinet.in/modules/mydownloads/visit.php?cid=52&lid=287>

Updates from the TN Government

The update on the tsunami related activities in Tamil Nadu as on 30.11.2006 (<http://www.tn.gov.in/tsunami/tsunami-relief.htm>) says that the Government of Tamil Nadu has so far sanctioned funds to the tune of Rs.1132.20 crore for relief and rehabilitation activities in the areas affected by tsunami with the assistance of Government of India. Details of workshops and training conducted especially with reference to disaster resistant construction etc are also provided.

589.285 ha of land in 192 locations have been acquired and a balance of 66.664 ha in 14 locations are to be acquired (<http://www.tn.gov.in/tsunami/land.pdf>).

The amount sanctioned so far for this is Rs 45.87 crores of which Rs 39.68 crores have been spent. Of the 54,087 tsunami-houses proposed, 12,027 have been handed over as on 20.11.2006 (<http://www.tn.gov.in/tsunami/housing.pdf>).

Government Orders issued in November 2006 and made available at www.tn.gov.in/tsunami/ :

- [G.O.Ms.No. 744 Dated 16.11.2006](#) (Revenue Dept.): Natural Calamities - Tsunami - Tiruvallur District - Payment of monthly rent to 87 shelters for one year - Rs.5,22,000/- sanctioned from Calamity Relief Fund - Orders - Issued.
- [G.O.Ms.No.742 Dated 16.11.2006](#) (Revenue Dept.): Natural Calamities - Tsunami - Tmt. Kunjammal Thomas, Charthala, Kerala State - Relief assistance to her damaged Mini Bus - Rs.84,461/- - Sanctioned from Calamity Relief Fund - Orders Issued.
- [G.O.Ms.No. 741 Dated 16.11.2006](#) (Revenue Dept.): Natural Calamities - Tsunami - Chennai District - Tsunami affected families resettled at Tamil Nadu Housing Board Celcrete Factory, Ernavur - Maintenance of Electrical Works - Appointment of 1 wireman and 1 helper privately - for Electrical maintenance work - Rs.1,47,180/- Sanctioned from Calamity Relief Fund - Orders - Issued.
- [G.O.Ms.No. 740 Dated 16.11.2006](#) (Revenue Dept.) Natural Calamities - Tsunami - Nagapattinam District - Acquisition of land for construction of houses - additional fund Rs.3,56,00,000/- Sanctioned from Calamity Relief Fund - Orders - Issued.
- [G.O.Ms.No. 738 Dated 16.11.2006](#) (Revenue Dept.) Natural Calamities - Tsunami - Vilupuram District - Settlement of claims of Educational Institutions towards Tuition fees and Special fees Rs.17 lakhs - sanctioned from Calamity Relief Fund- Orders - Issued.
- [G.O.Ms.No. 735 Dated 16.11.2006](#) (Revenue Dept.): Natural Calamities - Tsunami - Nagapattinam District - Sterilized Tsunami

victims under gone Recanalisation Operation Relief assistance Rs.35,378/- sanction from CRF/NCCF - Orders Issued.

- [G.O.Ms.No. 728 Dated 9.11.2006](#) (Revenue Dept.): Natural Calamities - Tsunami – Chennai District – Family Welfare Programme sterilized

Tsunami victim undergone primary operation specified as reproductive procedure – Reimbursement of hospital expenses Rs.10,102/- sanctioned from Calamity Relief Fund / National Contingency Fund – Orders – Issued.

Rehab News Snippets

Tamil Nadu

Housing and Infrastructure

Former U.S. President Clinton says southern Indian state leads in tsunami reconstruction: Thazanguda, India: Hundreds of villagers Friday lined the streets of a tiny coastal hamlet in the southern Indian state of Tamil Nadu as former U.S. President Bill Clinton toured new homes built to replace those washed away by the 2004 Indian Ocean tsunami. Around 119 two-roomed houses with sloping tiled roofs, a library and a gymnasium have been built in Thazanguda through the combined efforts of the United Nations, non-governmental organizations and private contractors. Clinton later visited a nearby cyclone shelter with a newly installed early warning system and saw a mock disaster drill.

http://www.iht.com/articles/ap/2006/12/01/asia/AS_GEN_India_Tsunami_Clinton.php

World Vision India's gesture to tsunami survivors: Nagapattinam: As part of its Nagapattinam Tsunami Rehabilitation Program, World Vision India, an NGO, handed over houses to 111 tsunami affected families at Nambiyar Nagar here recently. These families have been relocated to the houses constructed in Kadambadi at a cost of Rs 2 lakh each.

http://www.newindpress.com/NewsItems.asp?ID=IE_T20061126000731&Page=T&Title=Southern+News+++Tamil+Nadu&Topic=0

11 new school buildings at tsunami-hit villages: Nagapattinam: The Madurai-based NGO, People's Development Association, has started constructing buildings for 11 new schools in 10 tsunami-hit villages in Nagapattinam district. Joe Velu, director, who inspected the construction, said on Saturday that these schools were being constructed after getting well-designed plans from experts. Out of the 11 schools, two schools each were being constructed at Vellapallam, Vettaikaraniruppu, Manalmedu and Serudur and one each at Vanavanmahadevi, Velankanni and Keechankuppam.

http://www.hindu.com/2006/12/04/stories/20061204_08710300.htm

Development of Nagapattinam port under way: Nagapattinam: The tsunami-hit Nagapattinam port is being developed at a cost of Rs.43.52 crore with assistance from the Asian Development Bank, Collector Tenkasi S. Jawahar said on Monday. Works under the first phase, costing Rs.16.57 crore, are in full swing. The north and south breakwater would be strengthened, the affected areas reconstructed and a cargo handling area set up. Mr. Jawahar said the Kaduvaiyar would be dredged up to its estuary to ensure free flow of mechanised and fibreglass fishing boats to the sea from Keechankuppam and Akkaraipettai. Mr 'Jawahar said the Kaduvaiyar would be dredged up to its estuary to ensure free flow of mechanised and fibreglass fishing boats to the sea from Keechankuppam and Akkaraipettai.

http://www.hindu.com/2006/12/05/stories/20061205_03450500.htm

"Sanitation key factor in tsunami rehabilitation": Chennai: Sanitation was the most important, but also the most difficult component of the tsunami rehabilitation programme, C.V.Sankar, Officer on Special Duty, Tsunami Rehabilitation, said. The need was to build systems that would not be too complicated, keeping in mind the costs involved not only in setting up, but also in maintaining the infrastructure, Mr.Sankar said while addressing the inaugural function of a workshop on Water and Sanitation in Post-Tsunami Reconstruction, organised in the city on Thursday by the Tsunami Rehab Information Network (TRINet) in collaboration with Project Management Unit, Tamil Nadu Government. Issues to be considered while providing for sanitation, especially in the tsunami-hit coastal areas, include groundwater level, permeability and soil texture. Since there were variants in different areas, there was no single solution to the problem. Each area must have a custom made sanitation programme.

http://www.hindu.com/2006/12/15/stories/20061215_01680600.htm

4,000 houses to be given to the tsunami-hit during Pongal: Nagapattinam: More than 4,000 permanent houses that are now ready will be handed over to the tsunami-hit families in the district during the ensuing Pongal festival, said the Collector, Tenkasi S.Jawahar, here on Monday. After inspecting the construction of permanent houses for the tsunami-hit families in Arcottuthurai, Velankanni and other places in the district, the Collector said that a total of 18,634 permanent houses were being constructed in 76 locations in the coastal villages in Vedaranyam, Thalainayar, Keezhaiyur, Sembanarkoil, Kollidam and Sirkazhi blocks. The Collector pointed out that the construction of 6,186 permanent houses had so far been completed, of which nearly 2,000 houses had already been handed over to the beneficiaries and the remaining 1,186 would be distributed during the ensuing Pongal season. About Rs.100 crore is being spent for providing amenities including water supply, drainage, roads and streetlights. While the TWAD undertakes water supply at a cost of Rs.2.45 crore, drainage (Rs.25 crore) and road works (Rs.36

crore) would be carried out with World Bank assistance.

<http://www.hindu.com/2006/12/12/stories/2006121209530300.htm>

Permanent houses still elude affected families in Tuticorin: Tuticorin: Even two years after the tsunami struck the Tuticorin coast, 352 permanent shelters promised for the affected families are yet to be completed. And land identification is yet to be completed for another set of 225 houses, as a result of a standoff between two government bodies. "The delay in the construction of the remaining 352 dwelling units is due to certain technical problems, and we expect them to be completed by January 31, 2007," said District Collector R. Palaniyandi. This apart, the district administration is yet to finalise a site for construction of permanent houses for another 225 families accommodated in temporary shelters at Mullakadu on a piece of land owned by the Tuticorin Port Trust.

<http://www.hindu.com/2006/12/26/stories/2006122607410500.htm>

Livelihoods

ADB aid for Nagapattinam: Nagapattinam: A number of development works in the tsunami-affected areas of Nagapattinam district, including the development of the port, are being carried out with financial assistance from the Asian Development Bank (ADB), Collector Tenkasi S. Jawahar said here on Thursday. The banks and the NGOs had been instructed to identify women self-help groups in the seven affected blocks of Nagapattinam, Vedaranyam, Keezhayur, Thalainayar, Sembanarkoil, Sirkazhi and Kollidam for providing more financial assistance.

<http://www.hindu.com/2006/12/08/stories/2006120801540200.htm>

Solar fish dryer unit generates income to SHGs: Nagapattinam: Nearly 30 members belonging to two women self-help groups in Keechankuppam coastal village here now are getting good income, thanks to the modern solar fish drying unit put up by the District Rural Development Agency (DRDA) at a cost of Rs.6 lakh, as part of the tsunami rehabilitation to fishermen community. There was a good demand for the fish dried and processed in the unit in a hygienic way than the conventional method of drying the fish along the coast.

<http://www.hindu.com/2006/12/26/stories/2006122604740200.htm>

Andaman and Nicobar Islands **Housing and Infrastructure**

India's islands face tsunami housing crisis – report: Permanent shelters for tsunami survivors in India's Andaman islands do not reflect local needs and threaten to undermine the traditional way of life of indigenous people, a report said on Friday. Two years on, more than 9,700 families are without permanent shelter and live in temporary homes of corrugated iron which often become unbearable in the summer heat. "Prefabricated steel structure houses ... have been conceived more on the basis on capacities of delivery agencies rather than community needs and priorities," the report by the

Society for Andaman and Nicobar Ecology (SANE) and agency ActionAid said. Homes for fishermen were being built on hilltops while farmers will get houses far from their fields, the report said. Activists say most families will be relocated from the sites of their original homes and even to different islands. "People don't know on which island they will be relocated ... two years on, not one permanent house has been built," Vivek Rawal, co-author of the report, told a launch news conference. "This is the result of centralisation of decision-making and lack of autonomy and freedom of the local

community to discuss," said Vivekanandan of the Chennai-based Tsunami Rehabilitation Information Network, which also worked on the report.

<http://www.alertnet.org/thenews/newsdesk/DEL259728.htm>

Livelihoods

Mushroom Production training Inaugurated: Port Blair, Dec 04. The Department of Agriculture, in association with UNNATI, Port Blair is organizing Mushroom Production Training for the Rural women, members of SHG and unemployed youths.

Speaking on the occasion, the chief guest stated that the limited land available for agricultural purpose has further reduced after tsunami and hence the Agriculture sector needs to be supplemented with other viable ventures and

mushroom production is among one of them. It has immense potential for employment generation and needs to be exploited with appropriate technology. The department may establish few more such units for regular supply of spawn and arrange for village level training while 2-3 extension staff need to be deputed to mainland Institution for up gradation of their knowledge and skill in this field, he said.

<http://www.and.nic.in/telegame.htm>

Puducherry Housing and Infrastructure

Keys for houses handed over to 225 tsunami-hit families: Puducherry, Dec. 13 : As much as Rs.378 crore was available from the Centre, World Bank and also under plan allocations for the Union Territory of Puducherry to take up relief, rehabilitation and infrastructural facilities for tsunami hit families in Puducherry and Karaikal districts, a top official said today. World Bank's assistance alone was Rs.158 crore while the Rajiv Gandhi Rehabilitation Package involved availability of Rs.73 crore, District Collector and Project Implementation Agency Director here G Theva Needhi Dhas said. Of the total 7657 houses needed for rehabilitation of tsunami hit families, 5245 houses were being constructed by 19 non-governmental organisations and the government would take up either construction of remaining houses or sanction Rs.2.3 lakh as assistance to fishermen families to reconstruct houses at the same sites where they had the units prior to the tsunami.

<http://www.hindu.com/thehindu/holnus/405200612131540.htm>

Houses given to the tsunami-hit: Karaikal: The Lt. Governor of Puducherry, Mukut Miti, said here on Tuesday that construction of about 2,000 houses for the tsunami-hit families were nearing completion out of the 3,500 houses being constructed by the NGOs in Karaikal district. Addressing a function after handing over more than 200 houses to the tsunami-hit families at Keezhakasakudimedu in Karaikal district built by the Pondicherry Multipurpose Social Service Society (PMSSS), he said that the remaining houses would be built at the earliest possible time.

<http://www.hindu.com/2006/12/27/stories/2006122719360600.htm>

Tsunami-hit villagers refuse to occupy houses: Puducherry: Residents of Pannithittu, a coastal village near here, have refused to move into the permanent houses, though they were handed over to the tsunami victims on December 13 last year. The fishermen have avoided moving into the 98 houses, saying that the Government had failed to build houses for all victims. "We need about 460 houses. We told the officials that it was not possible for some to move into the new houses and others to stay in the old ones. If only a few of us are given the houses, it could create trouble among us," K. Devanathan alias Manjini, leader of fishermen in the village told The Hindu.

<http://www.hindu.com/2006/12/26/stories/2006122618010800.htm>

Long wait for houses continues in Puducherry: Puducherry: The tsunami victims' long wait for permanent houses continues even two years after the tragedy. A majority of the victims still live in their old houses and some of them in temporary shelters built where their homes once stood. As of now, the Government has completed only 1,101 houses. These too have been built by several non-governmental organisations and Project Implementation Agency, which the administration floated for rehabilitation. "Steps are being taken to speed up the process," said G. Theva Neethi Dhas, Collector and Additional Secretary, Relief and Rehabilitation. As for permanent rehabilitation, he said another 3,787 houses were nearing completion.

<http://www.hindu.com/2006/12/26/stories/2006122607460500.htm>

Kerala

Welfare schemes for tsunami victims:
Thiruvananthapuram: The CPI(M)-Led LDF Government in Kerala has worked out a series of welfare measures for tsunami-hit families in the state, Revenue Minister K P Rajendran said on Monday. Relief to the tune of Rs 16 crore would be provided to tsunami victims, particularly children, of nine coastal districts on the occasion of the second anniversary of the tragedy, Rajendran told reporters here. A comprehensive health security insurance

scheme for 1,58,364 families in the nine coastal districts would be implemented, he said. Chief Minister V S Achuthanandan would inaugurate the welfare schemes at a function to be held at allapad panchayat, the worst affected area, on December 26.

<http://www.newindpress.com/NewsItems.asp?ID=IE020061218114546&Page=O&Title=Thiruvananthapuram&Topic=0>

Useful Reads

Key Propositions for Building Back Better: A Report by the United Nations Secretary-General's Special Envoy for Tsunami Recovery, William J. Clinton. www.tsunamispecialenvoy.org

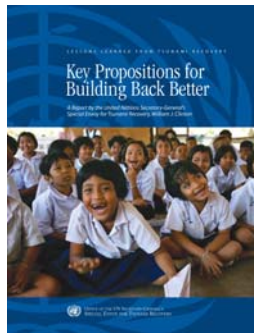
This report attempts to capture some of the key lessons from the tsunami recovery effort as I end my mandate as the UN Secretary-General's Special Envoy for Tsunami Recovery. Its subject is recovery in the aftermath of a natural disaster, rather than a man-made one. My goal is to help move the humanitarian community forward in the hope that others will learn from our experience as they face the inevitable disasters that tomorrow will bring.

(From the Introduction by Bill Clinton).

The ten propositions are:

- Governments, donor and aid agencies must recognize that families and communities drive their own recovery.
- Recovery must promote fairness and equity.
- Governments must enhance preparedness for future disasters.
- Local governments must be empowered to manage recovery efforts, and donors must devote greater resources to strengthening

government recovery institutions, especially at a local level.



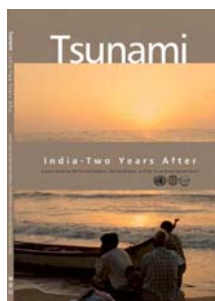
- Good recovery planning and effective coordination depend on good information.
- The UN, World Bank and other multilateral agencies must clarify their roles and relationships, especially in the early stages of a recovery process.
- The expanding role of non-governmental organizations (NGOs) and the Red Cross/Red Crescent Movement carries greater

responsibilities for quality in recovery efforts.

- From the start of recovery operations, governments and aid agencies must create conditions for entrepreneurs to flourish.
- Beneficiaries deserve the kind of agency partnerships that move beyond rivalry and unhealthy competition.
- Good recovery must leave communities safer by reducing risks and building resilience.

Tsunami: India – Two Years After. A joint report of the United Nations, the World Bank and the Asian Development Bank. www.undp.org.in

For millions of people living along the coastline surrounding the Indian Ocean, the morning of 26th December 2004 will long be remembered as the day the sea showed its ugly side. A tsunami, triggered by an earthquake measuring 9.0 on the Richter scale off the coast of Sumatra, caused death and destruction on an unprecedented scale. India, with almost 3 million people affected, over 12,000 dead and hundreds of thousands of



people left homeless, was among the countries that bore the brunt.

Two years later, much has been achieved. In 2005, people affected by the Tsunami were housed in temporary shelters with basic sanitation, childcare and nutrition services. Some of these people still live in those shelters; however, the Government has taken up the challenge to rebuild almost

100,000 new homes in all the affected States. As of November 2006, close to 30% of these have been completed. Infrastructure such as water supply, latrines and electricity is being provided in the new sites and destroyed infrastructure like roads and fishing harbours are being rebuilt. At the same time, the livelihoods of fishing communities are being restored and strengthened through a variety of initiatives. Destroyed and damaged schools were rebuilt - some of them received furniture for the first time ever.

During the past year, the recovery work has shifted gradually from immediate needs to long-term recovery. Particular attention was given to the equitable distribution of aid and benefits and to sharing best practices. This report reflects on progress in the past two years and the contributions made to support the Government's efforts by the World Bank, the Asian Development Bank and the United Nations Team for Tsunami Recovery Support. (*excerpted from the preface*)

Oxfam International Tsunami Fund: Second year report. December 2006 www.oxfam.org.uk

Oxfam's second year report begins with a financial overview. While the full amount from the joint appeal is not yet known, it is anticipated that the donations received will top US\$287m. The majority of the funds (89.7%) came from public appeals by Oxfam affiliates, including those organized in partnership with other NGOs. Corporate supporters donated \$16.9m (7.3% of the total). The remaining 3% comes from government donors. Interest earned on donations (\$4.6m to date) is added to the Fund. To date, Oxfam has spent 3.9% of funds raised on administration and fundraising. Of total program expenditure, 39.8% has been spent in Indonesia, 32% in Sri Lanka, 22% in India and 3.3% in Somalia. The remaining funds have been spent in Thailand, Burma, the Maldives and on general costs, which include research, central monitoring and evaluations, and some programs working with partners at a global level. Country wise reports of important activities taken up in the last year are provided. The report concludes with a chapter on evaluation and learning.



The key findings of the major external evaluations are:

- There needs to be an increased focus on working with others: with governments and other humanitarian organizations, and particularly with local organizations and communities, who are usually the first to deliver assistance.
- More effort and resources must be invested between emergencies to build the disaster preparedness of vulnerable communities. This includes ensuring that people are aware of their rights and in a position to protect them, especially during emergencies, when they are at their most vulnerable.
- Agencies need to work harder at improving the quality of what they do in a way that is accountable to those with whom they work. Achieving these goals will only be possible if agencies build strong relationships with local organizations and enable the development of strong civil societies.

World Vision – Second Anniversary Report. <http://www.wvtsunami.org/>

Two years after the South Asia tsunami hit efforts have gathered pace, and new livelihood opportunities, permanent vulnerability to future disasters.



Key Programme Achievements in 2006 include

- Construction on close to 13,000 planned homes while providing transitional accommodation and support services to thousands of households.
- Construction of more than 90 schools and 40 preschools, as well as health clinics, community halls, child-care centers, livelihood centers, teacher accommodation, community offices and

the coastlines of 12 countries, rehabilitation communities are steering their futures with homes, improved infrastructure and reduced

- warehouses, bridges, canals, roads and large-scale water and sanitation projects.
- Restoration of a fishing harbour, boat-building centers, goat farms, factories, marketplaces and a rural development-training center.
- Employment opportunities and vocational training for tens of thousands of people, and distribute assets such as fishing boats and equipment, boat global positioning systems, canoes, water pumps, welding plants,

computers, gem cutters, vegetable carts, diving kits, sewing machines, food processors and carpentry equipment.

- 201 Child Friendly Spaces, benefiting around 13,000 children, and offer child rights awareness sessions to more than 27,000 parents, community leaders, teachers and government officials.
- Food assistance in 2006 to around 60,000 people in Aceh and around 38,000 children in

Sri Lanka. More than 1,500 pregnant and lactating women have also benefited from supplementary food provisions.

- Health promotion interventions for 440,000 people.
- Educational support to more than 2,000 teachers and 40,000 children.
- Secured 3,500 land certificates for families and new birth certificates for hundreds of children

Tsunami Accountability Report 2006

[http://www.reliefweb.int/rw/lib.nsf/db900SID/LTIO-6WQNC/\\$FILE/interaction-disaster-dec06.pdf?OpenElement](http://www.reliefweb.int/rw/lib.nsf/db900SID/LTIO-6WQNC/$FILE/interaction-disaster-dec06.pdf?OpenElement)

InterAction is the largest alliance of U.S.- based international development and humanitarian nongovernmental organizations. Its 165 members operate in every developing country to overcome poverty, exclusion and suffering by advancing social justice and basic dignity for all. While some InterAction members specialized in humanitarian assistance completed their activities within the first year following the catastrophe, agencies with recovery mandates usually are working within three to five year timeframes, and sometimes longer.

Thus expenditures reported for the 21 months following the tsunami totaled \$ 1.028 billion or 58 %

of the \$ 1.78 billion they received from private sources in the United States, leaving them \$ 752 million to finance their continuing programs.



Expenditure rates varied among agencies as they used different mixes of public and private funds, implemented diverse program timeframes, and worked in separate relationships with their partners in multinational coalitions. At forty-six the number of agencies with detailed reports in this publication is lower than the sixty-two in its December 2005 predecessor as they have not repeated narrative reports for agencies which completed their activities in 2005.

About Us

TRINet, the Tsunami Rehabilitation Information NETWORK was set up in March 2005 as a response to the broad information requirements in the state of Tamil Nadu for tsunami rehabilitation and reconstruction phases to help in sharing information between different groups working on various aspects in the different districts of the state.

Initiated by SIFFS: South Indian Federation of Fishermen Societies, ICSF: International Collective in Support of Fishworkers and the Bhoomika Trust, the members of TRINet include the NGO Coordination and Resource Centre (NCRC) in Nagapattinam, Auroville Tsunami

Rehabilitation Knowledge Centre and the Kanyakumari Rehabilitation Resource Centre (KRRC), Nagercoil, and the information Centres in Chennai, Tuticorin, Tirunelveli and Kerala set up by SIFFS.

*This is the nineteenth issue of the **TRINet Newsletter** since it was launched in July 2005. TRINet brings out a weekly e-digest of news on tsunami rehab in all the affected countries as well as a Tamil newsletter called "**Alayathi**", aimed at the communities in Tamil Nadu. If you would like to be on our mailing list, please write to us at info.trinet@gmail.com. Please visit www.trinet.in for updates.*

TRINet: Tsunami Rehab Information Network
*c/o Bhoomika Trust, #3A, New No. 40, Murrays Gate Road,
Alwarpet, Chennai 600 018*
www.trinet.in