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We do not inherit the land from
our ancestors,
We borrow it from our children
Native American Proverb

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From the Editor's Desk...

Heartiest greetings to all the readers of the quarterly Newsletter Tidings. It is a matter of great pleasure that our small initiative has elicited such enthusiastic response from you. Our mailing list has shown a robust increase in the last few months, with requests from many organizations and individuals for inclusion. We at NIDM are also encouraged by your response and will make all efforts to continuously deliver to the best of our capacity and commitment.

The recent tsunami disaster has shaken the nation in its suddenness, ferocity and impact. While it has brought the nation together to extend solidarity to the survivors, it has also brought to the fore the need for better preparedness at all levels, even individual and community. However, in recent years the nation has made significant advances in response, so much so that we could extend a helping hand to our neighbours, despite having faced the disaster, speaks eloquently of our increased capacities.

However, we need to remember that disaster management is a process and a part of development. There is no place for complacency and more efforts are needed to reduce the resources we have already lost, including precious lives and futures. In order to react better to a disaster tomorrow, it is imperative that we learn our lessons today. To this end, NIDM has been documenting the tsunami disasters. We bring in this issue the experiences of the NIDM team to Andaman & Nicobar Islands as a follow-up of our report on Tamil Nadu in the last issue.

We at NIDM hope that we are together in our journey to build a Disaster Free India!

– Editorial Board.

Tsunami Wreaks Havoc in Andaman

The Andaman and Nicobar islands in India are located in Bay of Bengal lying 193 km away from Cape Negrais in Myanmar, 1255 km from Calcutta and 1190 km from Chennai. The Nicobar Islands are located to the south of Andaman, 121 km from Little Andaman Island. Of the total 572 islands only 36 islands are inhabited. On 26th December, 2004 a severe earthquake, measuring 8.9 on Richter scale was felt in Andaman and Nicobar Islands having its epicenter at 3.7 degrees N and 95 degrees E at a depth of 30km off the island of Sumatra in Indonesia at 6:29 am. The earthquake was one of the largest interplate shallow thrust disaster which took place at the interface of the sub-ducting Indian lithosphere and the overriding Burma plate.



Tsunami in Andaman and Nicobar



Map of Andaman and Nicobar islands

The earthquake was followed by a tsunami, about 3-6 meters in height and it battered the coastline along the Bay of Bengal killing thousands of people and causing huge damage. The waves flattened a number of dwellings, breached the shore protection walls and impaired the bridges and jetties in Andaman and Nicobar islands.

An overview of Damages:

The earthquake and subsequent Tsunami in the islands caused extensive damage in Car Nicobar, Katchal, Chowra, Nancowry and Great Nicobar in the Nicobar district and Netaji Nagar and Hut Bay in Andaman district. Table I shows the damages caused in the islands.

Impact of Tsunami

The picturesque Indian Ocean archipelago of Andaman and Nicobar, where the killer tsunami battered many islands affected the environment, geomorphology and livelihood of the people.

- I. Environmental impact: Severe damage was inflicted on the ecosystems such as mangroves, coral reefs, forested coastal wetlands, vegetation rock formations, animal and plant biodiversity and groundwater. The major effect was caused by the poisoning of the fresh water supplies as the soil by the salt water infiltration and deposit of a sand layer over arable land. Wells that served the community were invaded by sea, sand and mud; and aquifers were invaded through porous rock. Salted soil had become

Table I: Damage caused in Andaman and Nicobar islands due to tsunami

S.No	Infrastructure	Damage in crores
1	Ports	275.07
2	Power system	146
3	Buildings	138.47
4	Roads and bridges	134.95
5	Ships	64.90
6	Water supply	35.02

SOURCE: Memorandum on Earthquake /Tsunami damages by A&N Govt, 2005

- sterile and it would be difficult and costly to restore it for agriculture. It may also cause the death of plants and important soil micro organisms.
- ii. Geomorphologic impact: Flooding of the low lying was found to be widespread. Vast stretches of coastal areas were submerged due to sea ingress. The high tide is now, on an average one meter higher than the pre tsunami situation. Some areas were still getting flooded during high tide. Moreover, the low tide had also come up as result seawater was not nor receding back as earlier.
 - iii. Livelihood Impact: The disaster had seriously impeded the livelihoods of many local people including the poor fishing villages, business community and local urban communities whose livelihood relied very much on tourism.
 - a. Impact on trade: The business suffered great losses in terms of damages to the stock, loss of revenue, losses to property and infrastructure. The trade sector was put out of gear with large number of shops and commercial establishment being devastated in the tsunami affected areas. People employed in agriculture, Tourism and fishery sector have been totally crippled.
 - b. Impact on Tourism: The Andaman chamber of commerce and industry has estimated the revenue loss to this sector to the tune of Rs. 40 crores (Memorandum on Earthquake /Tsunami damages by A&N Govt, 2005). The long term repercussions on the tourist influx to the islands may well be incalculable.
 - c. Impact on Household Industry: People involved in various household industries like, tailoring, coir products, decorative objects, mattresses, basket making, supari, copra, coconut oil, broom making etc have also suffered extensive losses of infrastructure.
 - d. Impact on agriculture: Large areas of agriculture land had become saline and become unfit for cultivation unless suitable reclamation was taken up. The long term production of coconut especially from southern group of islands was likely to suffer as 75 percent of coconut comes from this island. The trade from byproducts of coconut was also likely to suffer to a large extent. Large plantations of Mangroves and Casulina trees were also destroyed.
 - e. Impact on fisheries: The fishermen of Andaman and Nicobar islands have suffered severely due to loss of boats, fishing nets and loss of lives. The revival of fishery sector shall require special efforts in the affected islands.

Methodology:

A field visit of fifteen days undertaken to carry out in-depth analysis of the overall situation of the affected area of Andaman district (Andaman and Little Andaman). The focus of the analysis was to study life in relief camps, perception of the victims towards initiatives taken by various government and nongovernmental organizations facilitating the recovery process and to identify needs of the people in the entire relief and rehabilitation process which was being carried out at the time of the study.

Tsunami in Little Andaman:

On 26.12.04, the tsunami struck Little Andaman, Hut Bay between 6:29 to 6:40 am. Some of the observations narrated by the tsunami victims during the field visit of the team are as follows:

- ✓ There were a series of about four to five waves that rocked the island. The first two waves were not very high. When the first wave struck, the water reached about half a kilometer to the shore. The second wave threw the water on the roads. The time difference between the first and second wave was about 10-15 minutes. This gave time to the people to go to higher places to save their lives. The water had electric current in it as many power lines and electric towers were also swept by it. By the time the third and fourth wave (which were the most destructive) struck, many people had already reached safer places. Hence the loss of lives was also comparatively lesser in Hut Bay. Table 2 shows the damages caused in Little Andaman by the deadly tsunami.

Table 2: Damages in Little Andaman

Damage	Number
Lives Lost	58
Death Identified	41
No Of Injured	25
Evacuated To Port Blair	4537
Evacuated To Main Land	0
Missing	16
No. Of Camps	7
Persons In Camp	6848
Total Population (2001 census)	17528

Source: Andaman and Nicobar Administration

- ✓ Although only 58 lives were lost, the devastation caused to property and infrastructure was huge. Most of the older buildings had completely collapsed. The buildings which survived were mostly newly built. Strangely, most of the temples survived the wrath of Tsunami.



Devastation Caused



Temples have not been destroyed

- ✓ The salinity of the local water resources and soil had devastated the vegetation and plantations to a large extent.

Devastation caused to Vegetation and plantations in Hut Bay

- ✓ There was no epidemic outbreak in the aftermath of tsunami. Government as well as various NGO's were continuously monitoring the cases of fever and stomach related problems regularly.
- ✓ About 5% people have already resumed some kind of livelihood. The rest of the affected population wanted to resume their livelihood as early as possible and preferably wanted to continue their previous occupation.
- ✓ Water was found to be in acute scarcity in many relief camps. This was primarily due to the fact that the local resources of water have been contaminated due to seawater.

Relief camps at Port Blair:

Although many tribal people had been sent back to their respective islands, about five relief camps were still operational in Port Blair. An insight into the life in few of these relief camps is as follows:

Relief camp at exhibition hall: Interactive sessions on the livelihood followed by the tsunami victims were held by the NIDM team. The people revealed that they were earlier engaged in making copra, decorative objects, mattresses, coconut oil, baskets and supari prior to the occurrence of Tsunami. However tsunami had resulted in the devastation of large number of coconut trees. Hence they cannot pursue their old livelihood of making copra, coconut oil, and other products made out of coconut. Since revival of coconut plantations would take five to seven years, they had to explore other options of livelihood when they return to their islands. They made the following recommendations regarding the new livelihood options:

- ✓ The government can give them fishing nets and boats and they can follow the occupation of fisheries
- ✓ Cash crops can be sown after the testing of soil
- ✓ Honey making is another area, which can be explored.
- ✓ Leaves of Kevari tree can be used for making ropes, baskets and mattresses.
- ✓ Small business ventures can be set up for the tribals, as the non-tribals who used to carry out this business will not be sent back to the Nicobar Islands. Hence the tribals will have to take care of their household needs themselves.
- ✓ Other initiatives can be taken up like plantations of coconut, mangroves, casulina, and reclamation of soil etc. In which the tsunami victims can be engaged.

The Ministry of Labour had organized one camp for imparting training to women in operating sewing machines. There were about eight women who were undergoing training the camps and had starting earning money thereafter.

Relief camp at Gol Ghar: This relief camp is based in the premises of girl's hostel at Senior Secondary School Port, Blair. It is government aided relief camp which started on 31st January, 2005. Some of the teachers from the affected islands are also deputed in this relief camp to look after the girl students. The relief camp has nine rooms in which the girl students are currently putting up. Since many of the students were complaining of home sickness Vivekananda Yoga Kendra came to this relief camp and held Yoga sessions for the students. Apart from the government aid, NGO's like Save the Children also distributed free books, sanitary articles,

stationary and uniform to the school students. As soon as they take their board exams, the government is planning to send them back.

Relief camp at Adibasera: A primitive tribe; The Andamense who were earlier living in the Strait Island prior to Tsunami occupies this relief camp. Since the government provided food and other necessary items to them in the island, the tribes stopped working altogether as all their needs were met by the money given by the government. The men and women of this tribe remained idle and soon got into the habit of drinking day and night. However, this tribe was stranded in the island when Tsunami occurred in Andaman and Nicobar islands. They were rescued from the island and brought to Adibasera relief camp at Port Blair.

The Government aids this relief camp. There were 35 members in the camp. The first step taken by the government was to organize a De-addiction camp for alcoholics. Presently many men and boys have de-addicted except few of them. The tribe is also being encouraged to make their traditional handicrafts and ornaments, a skill which they had forgotten as they had stopped working. The process of revival of making of traditional handicrafts and ornaments is going on in the camp.

Relief Camps at Hut Bay

There were five relief camps in operation at the time of the visit. An insight into the life in few of these relief camps at Hut bay is as below:

Relief camp at Panch Tikri: This relief camp was inhabited by about 300 tsunami victims. Women were found to be more actively engaged in livelihood activities. They were working either in relief work or undergoing some kind of training for stitching and sewing. The clothes stitched by these women were distributed to the students of the school. The women were being paid Rs. 100 per day for these clothes. As there was acute scarcity of water in the camp, men stayed back and traveled to far off places to arrange for drinking water as water was scarce.

People in the relief camp also expressed great apprehension about the temporary settlements being built by the government for them. They were more concerned about land allotments and permanent dwellings for themselves instead of occupying temporary arrangement made by the administration. In fact many of them had already built temporary shelters for themselves on their own.

Relief Camp at Pathak Bagicha: This was a huge camp which was inhabited by 1003 people. These people basically belonged to the fishing community while a few of them were agriculture laborers. Most of the people did not want to go to any other place or mainland after the Tsunami. They wanted

to continue with their lives in Little Andaman, Hut Bay. The teachers of government schools were feeling victimized. They had to go to school for 9 to 3:30 pm. After 3:30 pm they had to deliver their duties in the relief camps. They wanted the duties to be rotated. They felt that they were also victims of the Tsunami and should be treated like victims rather than overburdening them with responsibilities from morning till night.

Relief camp at A.L.H.W: This relief camp was inhabited by 60 families. This camp was inhabited by people belonging to lower socioeconomic strata like shopkeepers, labourers, rickshaw pullers, tailors etc. The victims seemed to be satisfied with the relief management in the camp. However few lacunae were observed in this particular camp. Only saris and Dhotis were given to these victims for clothing. The petticoats and blouses were not distributed. Later on request an NGO came and distributed the necessary material. The parents also complained, that the teachers were not teaching properly in the schools. In fact, the teachers constantly asked the students to go to Port Blair and resume their studies. The parents were very worried about the future of their children.

Observations on Government and NGO Collaboration

During the visit of the team to Hut Bay, Little Andaman, the team came across many NGOs working in and outside the relief camps. Some of the NGOs working in Hut bay were, NICEF, SEEDS, VHAI, Khalsa Aid (U.K), SOS Village, ACTIONAID etc. The NGOs tried to assess the needs of the victims in the relief camps and attempted to cater to those needs. They indeed supplemented the relief work carried out by the government and made it a success. However it was also strongly felt and observed that since there was no link among the NGOs, some of materials distributed in the relief camps were repetitive in nature and was based on an unequal / random distribution.

More importantly, it was found that many of these NGOs are also working in the area of livelihood restoration and some of them have already provided sewing machines, carpentry tools, etc. to people to start their livelihood. Hence, the relationship between the government and NGOs should be strengthened to manage the disasters effectively and efficiently in the future.

Identified Needs:

A rigorous interactive session was held between the team visiting the island and the tsunami victims living in the relief camps. The following needs were identified during these discussions and interactive sessions:

- ✓ Majority of the people are not satisfied with the concept of temporary shelter and its design as well. People want to build the shelters themselves with the money and material supplied by the government.
- ✓ The victims of the Tsunami wanted land allotments for making their permanent dwellings. They wanted to build their permanent houses themselves. However, they expressed the need to have financial and logistical support from the government.
- ✓ The non tribals were very insecure about their future and livelihood as the government was planning not to allow them to enter the Nicobar Islands. They had gone illegally and settled in the Tribal protected area long time back.
- ✓ As far as the government relief was concerned, only saris and dhonis were given to these victims for clothing to the victims. Such lacunae need to be filled by the government machinery. The NGO's did a need analysis and distributed petticoats, blouses, sanitary material and toiletries to them.
- ✓ It was observed that in most of relief camps the women folk were more active and engaged in some kind of work and men are just loitering around with contentment. This was especially true in case of tribals. This has a larger social and psychological significance in coming days when they return to islands and start leading life over there.
- ✓ The victims were also dissatisfied with the unfair distribution of relief material meted out to them. There were some families who were able to get hold of a lot of relief material whereas there were some families who were not able to secure the necessary relief material required for their everyday life.
- ✓ Many relief camps at Hut Bay were facing acute scarcity of water. The men and women in these camps had to travel far and wide to arrange for their drinking water.
- ✓ The teachers were feeling overburdened with the duties assigned to them. They had to teach in the schools till 3 pm and come back and perform their duties in the relief camps.
- ✓ An amount of Rs.50,000/- as ex gratia amount for death of kith and kin was distributed. However the memorandum on preliminary damage assessment specifies the amount to be one lakh
- ✓ The destruction of coconut plantations and salinity of the soil would act as a deterrent to the economic livelihood of the people. Efforts should be made to restore plantations and reclaim soil for agriculture purpose. The community can be involved in carrying

out these two processes as the process itself would serve as a means of livelihood for many Tsunami victims.

- ✓ Local sources of water need to be identified and developed as soon as possible to meet the scarcity of water.
- ✓ Many people complained of stealing of their saved goods after Tsunami. They commented that the rich people had become paupers while the paupers had suddenly become rich after the occurrence of the tsunami in the area. Whenever people tried to go back to their houses, the thieves would shout at the top of their voices that tsunami was again fast approaching. The owners would become frightful and run away from their houses. The thieves would then come and take whatever was saved in their houses. Hence, a mechanism needs to be developed and strengthened to check the law and order situation after the occurrence of a disaster.

Successful Attempts

- People in most of the camps were satisfied and happy with the food and sanitation arrangements done by the administration.

Reportedly there was no incidence of disease outbreaks in any of the affected islands. The steps taken by the government as well as the NGOs in this regard should be appreciated.

Educational rehabilitation was successfully put in place in the relief stage itself and students appearing in board examinations did not have to bear the brunt the tsunami curse for a long time. Vocational training for enrolled students and dropouts in some camps should be extended to all camps and all adolescents.

Initiatives taken in the area of de-addiction counseling, family counseling, counseling for women victims, yoga sessions etc. by the Department of Social Welfare, other government departments and NGOs need to be specially mentioned. However, the activities should also include career and livelihood counseling for both adolescents and adults.

It was noticed that women had already taken initiatives to enroll themselves in food for work programmes. These programmes though operative, still have to go a long way to motivate and coerce male members to take a proactive approach in resuming some kind of livelihood activity.

Apart from the absence of specific and sensitive relief materials for women, they were being targeted to be trained in different vocations, were being paid equally in food for work programmes. Many government departments were found to be active in providing counseling and other women specific services.

Recommendations and Suggestions

The following suggestions and recommendations raised from the situational analysis of life in relief camps in Little Andaman.

- Acute scarcity of water in the relief camps of Little Andaman should be looked into and taken care of. Local sources of water need to be explored and made available to people at the earliest. The time spent by the affected people in collecting water can be utilized in a more productive way such as providing them with skills to start some livelihoods
- Women sensitive relief materials should have been distributed in all relief camps. Two/ three women would have been included in the distribution of relief materials so that some sensitive and essential needs of women could have been taken care of.
- A mechanism should be developed so as to institutionalize fair distribution of relief material to the affected families according to their needs.
- The concept of temporary shelter and its design was not acceptable to more than 95% of affected with whom the team interacted (200 approximately). They wanted to build the houses on their own with government's assistance in terms of money and supplied materials. The victims felt that the housing reconstruction planning should include local people and representatives of the villages.
- The discrepancy of ex-gratia money between the actual distribution and specification given in the memorandum on preliminary damage assessment need to be looked into. Other than the ex-gratia people also mentioned receiving Rs. 2000/ from the govt. towards the maintenance expenses. However, the amount dissatisfied most of the victims, as the duration of stay in relief camps was more than three months and it may be difficult to meet the needs with this meager amount.
- Insecurity and uncertainty amongst the affected non-tribal staying earlier in tribal protected islands should be minimized by providing correct and appropriate government's considerations and planning on this issue.
- Security guard arrangements should be immediately

provided in all relief camps as soon as people are shifted to the camps as in many camps thefts are being reported. This step would also facilitate in maintaining the law and order during the response and relief phase.

- The administration should maintain a meticulous list of NGOs, their area of work, materials supplied by them and tentative time period for which they can work with the affected families in their respective Island. The criteria for NGOs willingness to work in the affected islands should be clearly specified on the basis of this list. This will help in avoiding piling of same relief materials again and again in many relief camps. It will expedite the recovery; rehabilitation and livelihood restoration work process and strengthen the GO-NGOs collaboration in a faster mode of operation.
- A feeling of being victimized was reported by the teachers due to the extra relief work burden apart from the regular teaching job. It should be remembered that they are also affected by the tsunami equally and have already borne the brunt. Hence they need time to recover and be mentally stable to shoulder the burden of extra workload.

nutshell the response and relief steps taken by the A & N administration were perceived to be satisfactory by the tsunami victims. The reconstruction and rehabilitation process has already been initiated and the temporary shelters have been put into place. However, the herculean and gigantic

task of sustainable development and livelihood restoration still needs to be catered to with utmost meticulousness. Moreover, it is imperative to ensure that all developmental works should comply with the disaster mitigation plan of the islands.

Institute News

- Workshop on Media in Disaster Management March 26-27, 2005
- Training of Trainers' programme on Disaster Management in collaboration with ATI, Shimla, March 28 - April 1, 2005
- Training Programme on Disaster Management in collaboration with NISA, Hyderabad at NISA Campus April 11-15, 2005
- Seminar on Meeting Nature's Upheavals: A Holistic Look at Disaster Mitigation in collaboration with India Habitat Centre at IHC, April 21-22, 2005.
- Workshop on Risk Financing & Risk Transfer in Disaster Management NIDM, April 26-27 2005
- Workshop on Disaster Management with NSS coordinators May 5-6, 2005
- Workshop on Gender & Disasters at NIDM May 9-10, 2005

We welcome comments/responses/articles from readers of our Newsletter

Visits to NIDM

A Multi-national Mission led by ADRC, Japan visited the country to visit Tsunami affected areas. Two faculty members of NIDM were deputed with this mission by MHA, GoI, to facilitate this mission in achieving its objectives. This mission also visited NIDM to find the possible ways to have collaboration.

NIDM has been requested by some tsunami-affected states to collaborate in preparation of detailed Disaster Management Plans for the districts.

Upcoming Events

- Workshop on Meeting Nature's Upheavals Potentials & Limitations of Civil Society in Disaster Mitigation & Reconstruction in collaboration with India Habitat Centre (IHC) at IMAGE, RA Puram Chennai on June 20-21, 2005
- Training on Disaster Consequence Management at NIDM June 27-July 1, 2005
- Training on General Disaster Management July 11-15, 2005