



All India Disaster Mitigation Institute

Review of AIDMI's Temporary Shelter Programme in Tsunami-Affected Southern India

Peralivu Nivaranam

Action Research Report Series No. 6

August 2005

Cliff Marks with Dr. AWP David

Review of AIDMI's Temporary Shelter Programme in Tsunami-Affected Southern India

- The All India Disaster Mitigation Institute (AIDMI) supported local groups and panchayats to implement the reconstruction of temporary shelter for 1,395 households in 15 locations in Tamil Nadu and Pondicherry in southern India following the tsunami of December 26, 2004.
- The beneficiaries are satisfied with their temporary shelter mainly because they decided all stages of the process: planning, resources, site selection, design and construction.
- The shelter rates well when compared to established criteria for evaluating temporary shelter including the Sphere Project Minimum Standards in Disaster Response



The All India Disaster Mitigation Institute (AIDMI) responded to the tsunami that struck southern India. After assisting in the provision of immediate relief AIDMI's main effort was to support local groups and panchayats for the construction of temporary shelter. A Total of 1395 housing units were constructed in 15 villages. This report presents a review and evaluation of that effort from the point of view of the beneficiary and the local government officials. The review found that government officers and beneficiaries in the villages are satisfied with the shelter provided. The evaluation showed that the shelter rated well against established criteria (including Sphere Project guidelines) to evaluate such shelter efforts, including the fact that the shelter was constructed in a timely manner, met local cultural needs, and was conducted by the beneficiaries in all stages to the process. This report includes findings and conclusions from this review as well as recommendations for further effort.

Title: Review of AIDMI's Temporary Shelter Programme
in Tsunami-Affected Southern India

ALL INDIA DISASTER MITIGATION INSTITUTE
411, Sakar Five, Near Natraj Cinema,
Ashram Road, Ahmedabad – 380 009, India
Tel: 0091-79-26586234 / 26583607, Fax: 0091-79-26582962,
E-mail: dmi@icenet.co.in, Website: southasiadisasters.net

© Copyright: All India Disaster Mitigation Institute

All India Disaster Mitigation Institute (AIDMI), Gujarat, is a community based action research, action planning and action advocacy organisation now spreading its work across India. It works towards bridging the gap between policy, practice and research related to disaster risk mitigation, in an effort to link the community to the national and international level activities and resources.

AIDMI's activities for disaster risk mitigation include: (a) Awareness Generation, (b) Capacity Building, (c) Policy Advocacy, (d) Direct Implementation, (e) Research and Publications and (f) Networking.

AIDMI was established in response to the repeated 1987-89 droughts in India. AIDMI has evolved from a project in 1989 to an autonomous organisation in 1995. During its decade long evolutionary journey AIDMI has developed four security programmes and eleven activity centres.

Four sector securities include: (a) Food (b) Water (c) Livelihood and (d) Habitat. The four jointly add up to building Human Security.

Eleven Activity Centres include:
(i) Action Review and Research Services,
(ii) Bhuj Reconstruction Project, (iii) Building Peace and Protection, (iv) AIDMI-AMA Joint Centre for Disaster Risk Management, (v) Emergency Food Security Network, (vi) Emergency Health Unit, (vii) Learning Resources, (viii) Livelihood Relief Fund, (ix) Organisation Resources, (x) Sphere Resource Centre and (xi) Water Security Programme.



For more information contact:

Action Review Research Services

All India Disaster Mitigation Institute

411, Sakar Five, Near Natraj Cinema, Ashram Road,
Ahmedabad 380 009, India

Phone: 0091-79-2658 6234/2658 3607, Fax: 0091-79-2658 2962

E-mail: dmi@icenet.co.in, Website: southasiadisasters.net

CONTENTS

1. Background	1
1.1 Indian Ocean Earthquake and Tsunami	1
1.2 AIDMI profile	2
1.3 AIDMI response	2
1.4 New Challenges for AIDMI	3
2. Methodology	4
2.1 Temporary Shelter Review Objectives	4
2.2 Review Team	4
2.3 Review Process	4
2.4 Limitations	4
3. Analysis and Evaluation	5
3.1 AIDMI's Temporary Shelter Process	5
3.2 Temporary Shelter Constructed	6
3.3 Evaluation	10
4. Findings and Conclusions	17
4.1 Findings	17
4.2 Issues	18
4.3 Recommendations	18
Annexures	
1. Villages Visited and Government Officials Interviewed	20
2. Highlights of Meetings with Villages and Government Officials	21
3. Case Studies - interviews	27

1. BACKGROUND

1.1 INDIAN OCEAN EARTHQUAKE AND TSUNAMI

On the morning of December 26, 2004 a large earthquake occurred off the west coast of Sumatra. (See Map 1) This devastating event occurred on the interface of the India and Burma plates and was caused by the release of stresses that develop as the India



Map 1. Indian Ocean Earthquake

plate subducts beneath the overriding Burma plate. (See Map 2 - Plate Tectonics) Scientists think the Burma plate was pushed up about 10 to 20 metres when the earthquake struck, forcing the water above into destructive waves. The latest scientific analysis of the Sumatra



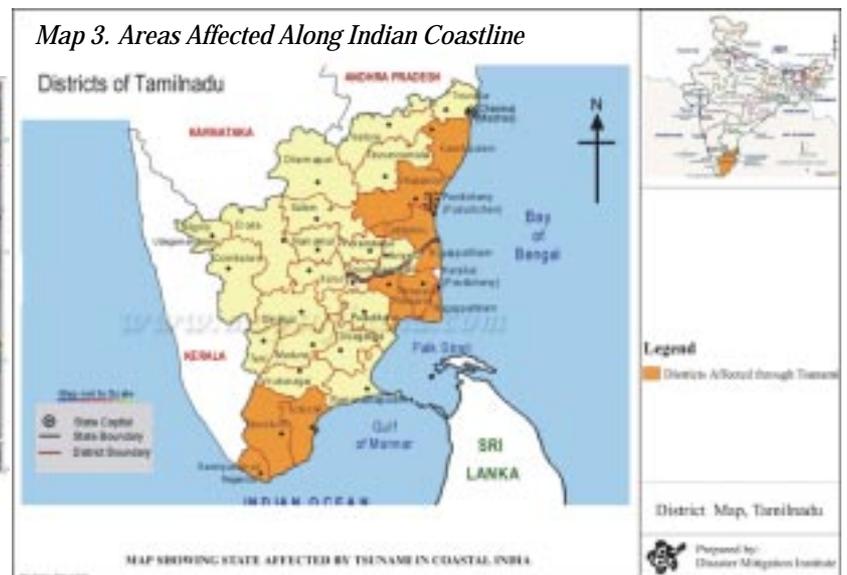
Map 2. Plate Tectonics

earthquake has led to revision of its magnitude to 9.3, three times bigger than previously thought. The revised value makes it second only to the 1960 Chile earthquake and explains in part why the tsunami was so destructive.

The tsunami caused widespread damage around the Indian Ocean affecting the countries of Indonesia, Malaysia, Thailand, India, Sri Lanka, and even in Africa. It caused huge damage and loss of life along the east coast of India affecting the states of Tamil Nadu and Pondicherry, stretching from Chennai District south to Nagapattinam District (See Map 3). The greatest loss of life and damage occurred in Nagapattinam. According to the government of Tamil Nadu, over 8,000 lives were lost (February 3 Data - up date) and approximately 3,500 were injured. Over 125,000

houses or huts were damaged or destroyed. Almost one million people were affected in one way or another.

The most obvious loss of livelihood occurred when fisher folk lost their boats and nets. But others were also affected either through direct damage to their means of livelihood, or through secondary effects due to their dependency on the fishing industry for their livelihood (for example, coolies who haul boats out of the water). Agricultural and plantation land was inundated and rendered temporarily useless by salt water and mud deposits. The impact was most serious on the poor among the victims including artisans, vendors, small craft owners, boat repairers, casual labour, contract labour and migrant labour. Even students in the affected areas lost their textbooks, notebooks and uniforms in the disaster.



Map 3. Areas Affected Along Indian Coastline

■ Background



Impact of tsunami wave on the coastal structures was widespread.

1.2 AIDMI PROFILE

The All India Disaster Mitigation Institute (AIDMI) is a community based action research, action planning, and action advocacy non-governmental organisation. AIDMI implements demonstration projects and runs training and research. AIDMI works towards bridging the gap between policy, practice and research related to disaster risk mitigation, in an effort to link the community to national and international level humanitarian activities from response to mitigation to risk reduction. Born out of repeated 1987-1989 Gujarat droughts, AIDMI developed from a project to a programme into an autonomous organisation in 1995. AIDMI has actively promoted community preparedness now for over a decade from project to policy and grassroots action to advocacy.

1.3 AIDMI RESPONSE

AIDMI sent four senior team members to Chennai on

December 26, 2004. They went through the checklist of their disaster relief preparation kit and had an inter-team meeting. They also gathered the details of the contacts in Tamil Nadu from their database.

The AIDMI team arrived in Chennai in the predawn hours of December 27 and then held one-on-one meetings with Tamil Nadu government officials to learn what the effects of the tsunami were, and where and what type of immediate relief help might be needed. The team then visited sites in Chennai and conducted a preliminary damage assessment. The next day they visited affected areas to the south of Chennai. AIDMI received the first official damage assessment report from the government of Tamil Nadu on the 28th and faxed this to their headquarters in Ahmedabad.

Within three days AIDMI had conducted site visits and began to provide immediate relief to fill the gaps in assistance that government

agencies and other NGOs had started to provide. For example, it was determined that basic food was being supplied but milk and biscuits, needed for children, were not being given so these supplies were purchased locally by the community and delivered to three villages by local leaders. In one village AIDMI supported community provision of breakfast, lunch, and dinner to 163 families for three weeks. It was also apparent that water vessels were lost in the tsunami and 575 vessel kits were delivered to four villages. AIDMI's experience in responding to previous disasters, and their approach of asking the community itself what was needed directed these demand driven activities.

In some cases AIDMI has provided cash for work for collective activities to provide supplementary income; these activities have included the clean-up of debris, enlisting victims, making relief plans, setting up distribution systems, and the provision of cement floors for the temporary shelter (see below). As a means of supplementing incomes while fishing is in abeyance. AIDMI is arranging training activities in the area of sewing, incense rolling, coir rope making, buildings construction supplies, candle making, and other crafts. These optional income activities will be useful even after fishing resumes.

The most significant effort that AIDMI was involved with in the first stages of relief and recovery was the provision of temporary shelter. In total AIDMI supported local groups and panchayats for provision of temporary shelter for 1395 families in 15 villages. One

■ Background

of these villages was the first to receive shelter in all of Tamil Nadu. This process is discussed in more detail in the next chapter.

Temporary Shelter Review

AIDMI decided to evaluate its temporary shelter work in order to determine whether it was effective and to see what lessons could be learned for similar future activities in coastal Tamil Nadu over the next 3 years and in the future, both by AIDMI and others. The review was conducted by: Dr. AWP David, AIDMI board member and head of AIDMI's Food Security Programme (native speaker of Tamil language), and Cliff Marks, a retired town-planner with the US government who worked with AIDMI for five months in 2003-2004. The two evaluators, along with other AIDMI staff, visited several villages and government officials (See Annex 1) from March 16, 2005 to March 19, 2005 in order to document the work that AIDMI has done to date, and to find out what the beneficiary communities and government officials thought of the AIDMI effort. The review was also intended to help determine the next steps that AIDMI should take in the tsunami rehabilitation effort. This report presents the findings from this review.

1.4 NEW CHALLENGES FOR AIDMI

The tsunami presented AIDMI with new challenges and new



Installation of hand pump in Mudaliarkuppam in new relocation site of temporary houses built by community was useful.

opportunities. Although AIDMI has responded to other disasters outside Gujarat, such as the 2004 school fire in Tamil Nadu, 2004 floods in Assam, and 2004 drought in Rajasthan, this is the largest disaster that AIDMI has been involved with in other parts of India. This gave the organisation an opportunity to expand its area of expertise outside Gujarat as well as responding to a disaster of unprecedented scale. This response involved the construction of large numbers of temporary shelter, something which AIDMI has done on a smaller scale in the past. The team that AIDMI sent was not large but it consisted of senior members of AIDMI who have a great deal of experience dealing with disasters and keeping the communities in the

centre of decision making. AIDMI's knowledge of, and experience, with disasters mainly in Gujarat was transferable to southern India. The lack of knowledge of Tamil by the AIDMI team presented challenges but they were still able to continue it's a community-based approach with the help from local Tamil speaking volunteers, and by moving away from operational mode to supporting mode. AIDMI was able to work directly with local fishing Panchayats to see if they wanted to do work, on constructing temporary shelter for example. The need for getting good information from, and the need for working with, both the government and the community was taken into account. ■

2. METHODOLOGY

2.1 TEMPORARY SHELTER REVIEW OBJECTIVES

AIDMI decided to evaluate its temporary shelter work in the tsunami affected areas of southern India in order to determine whether it was effective and to see what lessons could be learned for similar future activities both by AIDMI and others. This was intended to document the work that AIDMI has done to date, and to find out what the beneficiary communities and government officials thought of the AIDMI effort. The review was also intended to help determine the next steps that AIDMI should take in the tsunami rehabilitation effort. This report presents the findings from this effort.

2.2. REVIEW TEAM

The review was conducted by two persons: Dr. AWP David, retired Additional Chief Secretary (Government of Gujarat), AIDMI board member and head of AIDMI's Food Security Programme, and Cliff Marks a retired town-planner from the US government who worked with AIDMI for five months in 2003-2004. Dr. David is from Tamil Nadu and speaks Tamil and was the leader of the focus group meetings in the villages. The meetings with government officials were conducted in English. The two were assisted by Jikesh Thakkar, tsunami shelter construction coordinator, AIDMI, and local volunteers in various locations.



Review team meeting villagers in Panchalpuram, coastal India.

These two paragraphs are a repeat of a paragraph in the section above. Either these need to be taken out of the paragraphs in the preceding section.

2.3. REVIEW PROCESS

The two evaluators, along with other AIDMI team members, visited several villages and government officials (See Annex 1) from March 16, 2005 to March 19, 2005. Five villages were chosen representing a variety of conditions relating to type of housing constructed, layout, location, building material, construction technology, construction processes, land tenure, community groups, income levels, different districts in Tamil Nadu and Pondicherry, and a variety of AIDMI livelihood programmes. The approach was to conduct interviews with the government officials and hold large focus group meetings with members of the villages. Shelters, damaged and new, were visited. In addition, AIDMI

staff provided information on the overall number of shelters it has built, concerning type, location, size, etc. As a framework for the review a set of guidelines developed by AIDMI team based on Sphere Standards and DFID's CHAD unit, was used to evaluate AIDMI's temporary shelter programme (the guidelines are listed in Section 3.3). The Sphere Project Minimum Standards in Disaster Response were also incorporated in this evaluation. Case study interviews were also conducted and are included in Annex 3.

2.4. LIMITATIONS

The review team was only able to spend four days in the field and conduct focus group meetings in only 5 villages. At that time individual interviews with specific beneficiaries could not be conducted given the time limitations. However, as noted, case study interviews conducted later by AIDMI team are included in Annex 3. ■

3. ANALYSIS AND EVALUATION

3.1 AIDMI's Temporary Shelter Process

The process that AIDMI used in supporting local construction of temporary shelter is illustrated in the following figure.

Preliminary Data Gathering	AIDMI Collects Information from Government	AIDMI conducts primary damage assessment based on assessment list and data compiled by local fishing panchayats. (AIDMI methods: Transit walk, individual interviews, observation method, and triangulation to try to ensure that list has predominantly poor households, and hardly any other vulnerable group member – dalits, muslims, widows – is left out.)
	AIDMI gathers shelter data from Panchayat (identify poor homeless people); AIDMI meets beneficiaries to initiate local committee.	
Planning	AIDMI coordinates with district government	AIDMI meets with community and panchayat to review site, materials, size of units, etc. decided by the said committee. Where needed and possible, both, AIDMI invites women to join this committee.
Construction	Panchayat undertakes construction with the committee keeping accounts, maintaining quality, pushing schedule, and negotiating disputes on money and tenure methods.	Panchayat selects contractor; sets time limit; finds land; resolves tenure on land' and shortlists individuals who will move in.
	Panchayat sends formal letter to AIDMI listing beneficiaries, type of construction (size, materials, location, unit costs of shelter, selection process, land availability, and willingness to move. AIDMI is requested for resources.	
	AIDMI improves, where possible, site plan prepared by community and contractors.	
	Construction starts	
	Monitoring by AIDMI of construction focusing on safety and costs.	Monitoring of construction by community focusing on quality, schedule, costs, and design.
	AIDMI regularly informs district government of progress	
	Construction completed	
Follow-up	Panchayat allocates units to affected families; house numbers and names fixed	
	Letter of acknowledgement from Panchayat to AIDMI	
	AIDMI monitors families for further needs of livelihood and food.	

■ Analysis and Evaluation

As can be seen in the above figure, AIDMI worked with both government officials and the affected community to determine which villages should receive temporary shelter, and how and where the shelter should be constructed. AIDMI's past experience was very useful. In addition to the obvious government officials that needed to be contacted, AIDMI also has a list of government officials that it knows on a personal basis, many of whom they had met in national conferences and AIDMI national courses. These contacts proved very useful. AIDMI has learned from previous disaster work that it is necessary to spend time to get to know the community and work with them to determine the type and location of housing that they desire.

In short, AIDMI does not build shelter. The community builds the shelter while AIDMI supports them with resources, safety and cost monitoring, and promoting social inclusion.

Most importantly, it was assumed by AIDMI and the victims that the temporary shelter was for three to five months only, and soon the government and NGOs will start building permanent shelter. However, the policy for the construction of permanent shelters is far from clear and finalised.

During AIDMI's relief work immediately after the tsunami the team assessed the situation to determine losses. Good relationships were established with



AIDMI team talks to community in Anumanthaikuppam.

the Panchayats (note: the contact was with Fishing - Meenavar-Panchayats, not Village - Gram - Panchayats) and people who were poor and excluded. This ensured that in the rehabilitation phase (construction of temporary shelter) the participation of the community was relatively easy, rapid, and reliable. This helped in smoothing the site selection, material selection and beneficiary selection process. In most cases a committee was formed to assist the panchayat in planning and implementing the temporary shelter construction. Situations demanding direct intervention to include excluded groups were handled by AIDMI intervening actively in the construction stage, and once the occupants had moved into new temporary shelter, local committees took over.

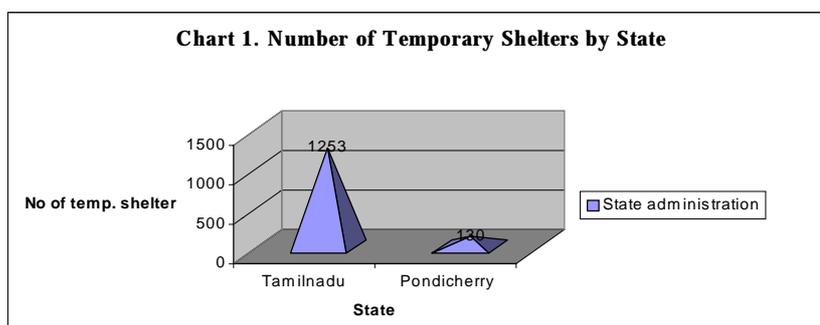
3.2 TEMPORARY SHELTER CONSTRUCTED

As noted in Chapter I, AIDMI has constructed shelters for 1395 families in 15 villages. This number and type of housing is presented in Table 1, below. More detail concerning who constructed the structure (panchayat, contractor), the ownership of the relocation site, the layout (compact rows, individual scattered houses), size of units, and construction materials is presented below. The analysis is for 1,383 units only.

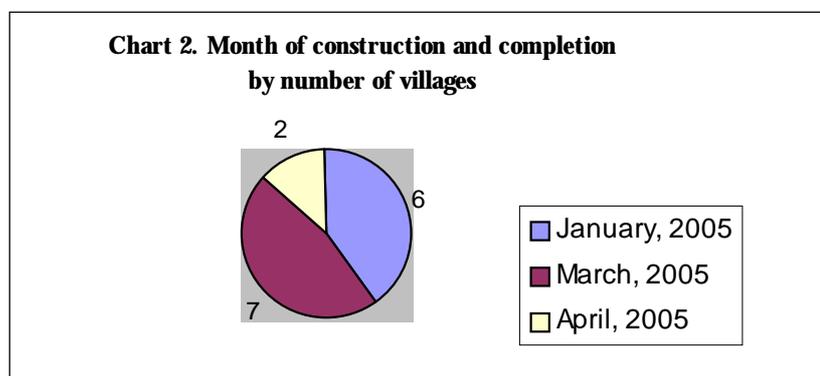
Of the 1,383 housing units constructed 1,265 were located in the state of Tamil Nadu and 130 were located in the state of Pondicherry as indicated in Chart 1.

Table 1: AIDMI Temporary Shelter

State	District	Village	Number of Houses
Tami Nadu	Villupuram	Anichyagokuppam	180
		Mudliyakuppam	100
		Puddukuppam	68
		Chettinagar	112
		Anumanthaikuppam	200
		Ekkiyarkuppam	124
		Pillaichavdi	24
	Cuddalore	Panchalpuram	77
	Nagapattinum	North Kuttiyandur	50
		South Kuttiyandur	68
		Peddupettai	100
		Talampettai	50
		Chenamguddi	100
Pondicherry	Pondicherry	Kanapathichettikulam	100
		Murthikuppam	30
		Puddukuppam	
TOTAL			1383



All of the temporary shelter construction took place within a little over three months of the tsunami. As indicated in Chart 2, the shelter was completed in six villages by the end of January 2005 seven villages by the end of March, and two villages in April. Thus communities started building their first shelter on the fifth day after the disaster and finished before the 100th day.



Village Selection: As noted, AIDMI worked with government officials to locate villages where help was needed and was not being provided by the government or other NGOs. In fact, the villages were chosen mainly through suggestions from government officials who told AIDMI which areas were in need. AIDMI made contact with people in the community, observed the situation, and made their own assessment based on their experience and expertise. In most cases, villages that were the recipients of AIDMI immediate relief were also selected by AIDMI to receive temporary shelter. In some cases, based on their assessment, the AIDMI team informed government officials that certain villages were in need of temporary shelter and asked their approval to construct shelter in these villages.

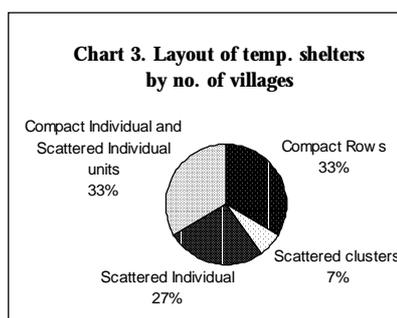
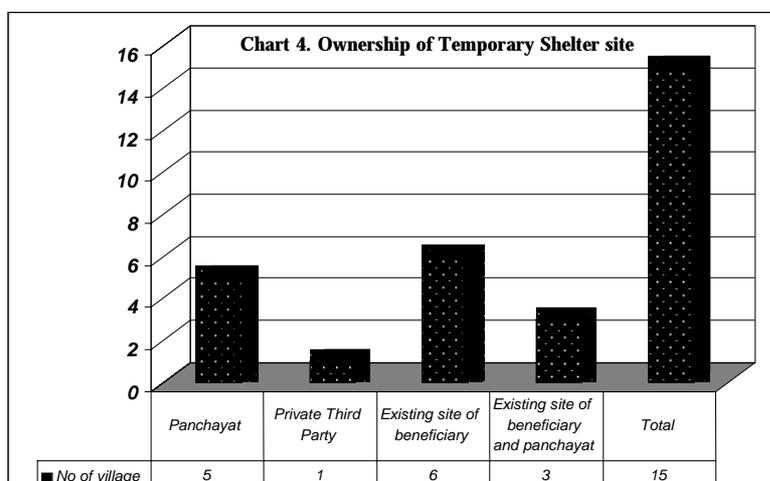
■ Analysis and Evaluation

As a result, there was relatively little overlap of activities and actors in these villages. Even so, each of the villages have three to five other agencies active in one or more sectors. On average upto six agencies were working in an affected village, and in villages closer to Nagapattinam, the number went up to 13 to 16 agencies. The Government of Tamil Nadu has now set up a system to avoid such overlap and this is being implemented with greater emphasis.

Location Selection: Once villages were selected for temporary shelter AIDMI worked with the community (mainly Fishing Panchayats) to determine where the shelter should be constructed. This was based mainly on the amount and location of land available. Some sites are owned by the government, some by Panchayats, and some by private individuals who are letting the villagers use their land for the temporary shelter. Usually the housing units were constructed next to each other (either detached or connected) and were built on open land. However, in some cases the temporary shelter had to be built on individual lots next to old and damaged buildings because new land was not

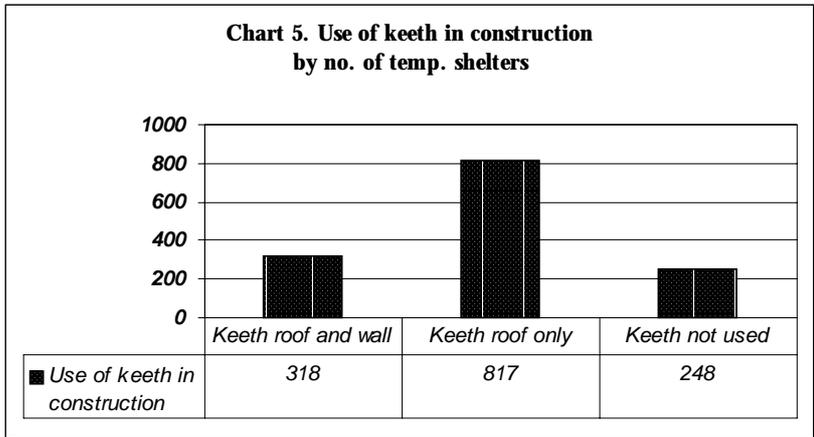
available or the family could not or did not want to relocate on a new site. As can be seen from Chart 3, the temporary shelters in one third of the villages (5 villages) were constructed in compact rows; one third of the villages (5) used a combination of compact individual - located next to each other - and scattered individual houses; four villages constructed scattered individual houses; and one village constructed scattered clusters of units. Local committee and/or panchayat selected sites, processed the technicalities, informed the officials, and negotiated the occupation on their own.

The ownership pattern of the temporary shelter sites was varied as can be seen in Chart 4. In six villages the temporary shelter was constructed on sites owned by the beneficiaries, in five villages the site is owned by the Panchayat, in three villages the site on a combination of land owned by the beneficiaries and the Panchayat (fix chart label), in the case of one village the site is owned by a private third party. Site negotiations were conducted by panchayats.

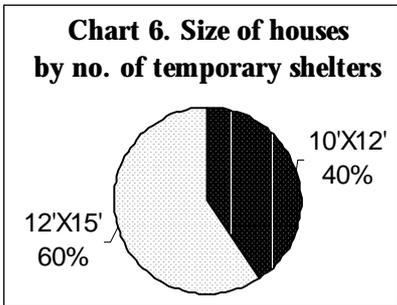


Material Selection: In the first village where AIDMI constructed temporary shelters the community asked for thatch (keeth) construction but the government insisted on asphalt walls and fireproof roofs. Later, recognising, the widespread opposition to this type of construction and the fact that many such units remained unoccupied, the government agreed to allow thatch construction. In most cases thereafter thatch construction was used in AIDMI supported temporary shelter. Usually the shelter constructed by AIDMI, especially if single family detached, was based on the design of the villagers' old housing or traditional shelters. As can be seen in Chart 5, keeth was used in the construction of 1,147 (82%) of all the units and keeth was used for both roofs and walls in 318 (23%) of the units.

■ **Analysis and Evaluation**

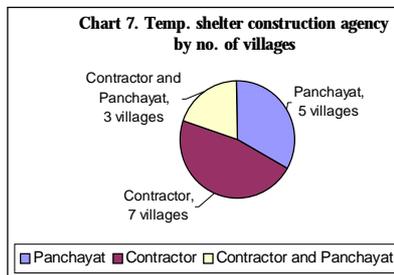


As can be seen from Chart 6, all the housing units are at least 10 feet by 12 feet in size, with 835 units (60%) 12 feet by 15 feet in size.



Choice of Builders: AIDMI worked with the Panchayats to determine who would construct the shelter. The committees played an active role in this. Often women took a keen interest in layout and design, and went beyond this negotiating the construction of gates with the builders. On occasion, the committees became more active. Usually a contractor was selected; with local members of the community also participating in the construction. AIDMI and the Panchayats together usually negotiated with the potential contractors. As can be seen from Chart 7, contractors built the shelter in seven villages and partnered with the Panchayat in three

villages, while the Panchayat alone organized the construction in five villages. Tradeoffs were made on who builds, who decides, who is included, and schedule.



Beneficiary Selection: In all cases the Meenavar Panchayats determined who the beneficiary families would be although AIDMI had to step in to encourage greater inclusion of

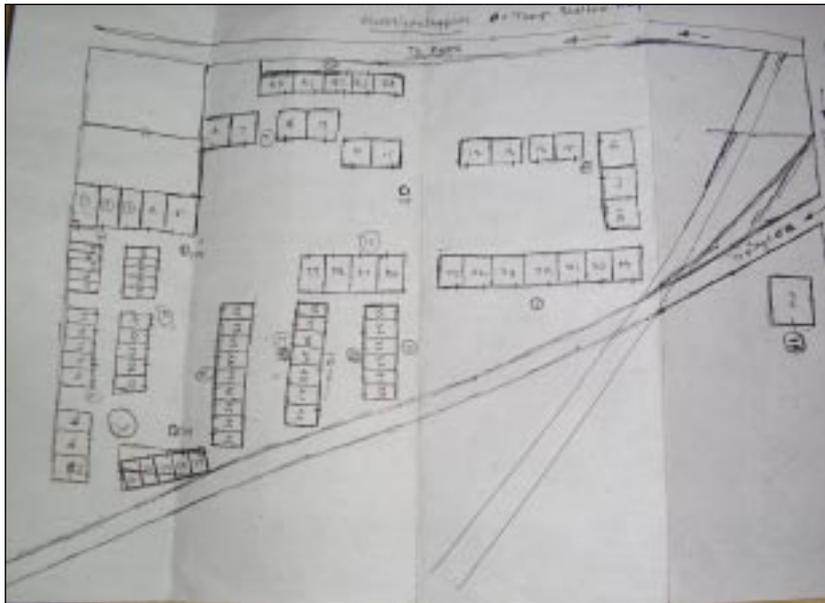
excluded households. In a few cases there was some negotiation involved with respect to the number of units to be constructed, yet to be perfected.

Case Study: Mudliyakuppam: An example of AIDMI's community based approach can be seen in the village of Mudliyakuppam. At first there were some difficulties in working with this village. The panchayat said they needed housing for 200 families. However, the Collector asked AIDMI to construct only 100 units. Based on AIDMI's assessment it was determined that 100 housing units were needed. The team negotiated with the community and determined that only 100 would be constructed, at least at the beginning. At first the community's attitude toward AIDMI was negative but this changed after working with the AIDMI team. Their attitude changed mainly because AIDMI staff spent time to learn what type of temporary housing the



Mudliyakuppam temporary shelter – a real village!!

■ Analysis and Evaluation



Plan for Mudliyakuppam

community wanted and drew up a site plan for the units with the community. The shelter was constructed of wooden poles and thatch; the materials were provided by the committee supported by AIDMI, which also provided water stands. Individual families have made additions and have turned this temporary housing into a real village. AIDMI has also supported community demand to construct a work shed where optional money raising activities can be carried out. This effort in Mudliyakuppam can be contrasted with other housing that has been constructed (both by the government and NGOs) using asphalt sheets for walls and cement sheets for roofs. In many cases these hot and uncomfortable structures, often located in barren and remote areas, remain unoccupied. Though a survey has not been conducted, large number



Temporary Shelter that has remained unoccupied.

of public houses and upto 60% of NGO build houses have yet to be occupied.

3.3 EVALUATION

The AIDMI team, based on DFID and Sphere guidelines, has provided a set of guidelines by which to evaluate these temporary shelters. These guidelines, which are listed in Table 2. were also the focus of this evaluation of AIDMI's temporary shelter programme.

Table 2: Temporary Shelter Guidelines

1. Shelter repair and construction responded to immediate needs of the beneficiaries.
2. Timely completion, within 6 months
3. Maximization of use of local resources and labour, adding value to the local economy (e.g. materials, labour intensive, enhancing skills)
4. Meets existing and evolving government requirements for temporary accommodation and later permanent rehabilitation (e.g. as per Government of Tamil Nadu Revenue Dept. GO 25 of 13/01/05)
5. Technical Standards agree with other agencies providing shelter
6. Located with the agreement of beneficiary community
7. Consistent with livelihood security of households
8. Conformed to both local social norms and public health standards
9. Construction consistent with environmental conditions
10. Property rights reflecting equality between men and women
11. Beneficiaries prioritize the most vulnerable
12. Programme subject to social/equity audit
13. Provision of safety measures like fire extinguishers and clearing of shrubs to avoid visitation of snakes or fire hazardous etc.

■ Analysis and Evaluation

Evaluated against these guidelines, and the relevant Sphere Project Minimum Standards in Disaster Response AIDMI's temporary shelter AIDMI's effort rates very well. This is especially true with respect to the timely completion of the shelter, the consistency with local practices, and the agreement and participation of the beneficiary community. Following are some of the major findings of the analysis followed by the detailed evaluation:



Village women making coir rope with local materials.

- The temporary shelter built by panchayat with AIDMI responded to the immediate needs of displaced families and was constructed in a timely fashion.
- AIDMI encouraged local communities who used local resources and labour and, in all cases but one, the shelter was constructed out of material favoured by the beneficiaries. In the first village the materials used (tin walls and cement sheet roofs) were insisted upon by the government.
- The shelter met the existing government requirements and technical standards. The local government approved the location and materials for all temporary shelter built with AIDMI support. Local norms and health standards were also met.
- Community participation was maximized. In all cases, AIDMI spent a great deal of time working with the community to ensure their

participation in decisions regarding the location and materials of the shelter. While the identification of beneficiaries was primarily at the discretion of the local fishing Panchayats, the inclusion of women and excluded households was actively encouraged and at times insisted on by AIDMI.

- The provision of shelter is consistent with the livelihood security of the households.
- The construction of temporary shelter had little negative environmental impact and sustainable building materials (bamboo and thatch) were generally used.
- The provision of housing took into consideration gender equity as the units are provided in the names of both the man and woman of the household.

As noted above, and included in Table 2, a set of guidelines to evaluate the provision of post-tsunami temporary shelter has

been prepared but most importantly, the shelters have character, air and light, and are affordable. Below is a documentation of how AIDMI's temporary shelter programme met these guidelines. This discussion is augmented by references to the Sphere Project's Minimum Standards in Disaster Response developed by a group of humanitarian NGOs. The Sphere standards contain general statements and key indicators to be used to determine whether or not a standard has been attained. One set of Sphere standards relates to shelter and settlement. Another addresses water supply, sanitation and hygiene promotion.

The discussion is arranged according to various topics. First, the topic is discussed, noting the Guidelines and Sphere standards. Then AIDMI's work is evaluated in this context.

1. Response to Immediate Needs

Did the shelter repair and construction responded to

■ Analysis and Evaluation

immediate needs of the beneficiary? Sphere standards call for return to site of original dwelling where possible.

AIDMI supported provision of temporary shelter for 1378 households whose homes were lost or severely damaged to the extent that they were not habitable. These households had to stay with family or friends in non-affected areas until they could move into the temporary shelter. In the immediate aftermath of the tsunami people had to stay in other buildings, such as temples or schools, because their family or friends' houses were also affected.

Since the shelter is located in the same place the villagers can easily make contact with any agency that comes to village and can take advantage of whatever type of relief is provided.

2. Timely Completion

The Guidelines call for completion of temporary shelter within 6 months.

Approximately 1200 units of temporary shelter were completed within a little over two months. All the housing will be completed within four months.

One village that AIDMI served was the first to receive any temporary shelter in all of Tamil Nadu.

3. Use of Local Resources and Labour

Was the use of local resources

and labour maximized? Did it add value to the local economy (e.g. materials, labour intensive, enhancing skills)? The Sphere standards call for the use of locally sourced material, specialist skills, and manual labour, with no harm resulting to the local economy or environment; reuse of material from damaged shelter is encouraged.

AIDMI encouraged use of local materials such as thatch (keeth), bamboo, locally manufactured tar sheets, etc. At first, the government required asphalt and cement sheets for roofs, and AIDMI was forced to use these materials in the first village. Later, the government relaxed its requirements and AIDMI, in conjunction with the villagers, chose to use thatch material. One village decided that they did want asphalt and cement sheet construction, but all others chose thatch. AIDMI paid for material

and labour (pay-for-work) either by assisting panchayat in hiring a contractor (when special skill was required) or by paying the panchayat who organized the work. In some cases masons from the same village were hired.

Reuse of material from damaged shelters generally was not possible because the new shelters were all constructed as multi-family dwellings. The community did collect damaged material that was then sold to contractors working on the construction, with the proceeds going to the individual or the community. Provision was made for individuals to store building construction material should they wish.

4. Government Requirements

Did the shelter construction meet existing and evolving government requirements for temporary accommodation and later permanent rehabilitation (e.g. as per Government of Tamil Nadu



AIDMI Temporary Shelter under construction.

■ Analysis and Evaluation

Revenue Dept. GO 25 of 13/01/05)? GO 25 provides for the construction of permanent structures as follows:

NGOs may select a particular habitation/habitations of any suitable size accommodating at least 50 families with the plan for providing permanent housing, livelihood rehabilitation, community infrastructure such as roads, water supply, schools, health facilities, noon meal centre etc for the entire habitation chosen. Project has to be above Rs. 75 lakhs (for 50 families) and it should cover the following (Land will be provided by Government):

- Houses: Rs. 25 lakhs at Rs.50000 per house.
- Common infrastructure consisting of roads, water supply etc.: Rs. 25 lakhs
- Livelihood rehabilitation: Rs. 25 lakhs

These guidelines were for permanent, brick and cement, mass housing under village adaptation scheme by NGOs. As AIDMI was supporting temporary, bamboo and rope individual houses, the above GO was not useful.

5. The Sphere standards call for the construction to be in accordance with local safe building practices and standards of workmanship; standards of good practice should be agreed with local authorities to ensure that key safety and performance requirements are met.

As noted, the government at first required that temporary shelter be



Temporary shelter is located close to the sea, the source of livelihood for fisher folk.

constructed of asphalt sheets and cement sheets for roofs. (In fact, all housing provided directly by the government was constructed in such a manner). Then the government said that thatch was acceptable if constructed by NGOs. From then on all of the housing was constructed in this manner, except for the one village mentioned above that desired the more robust construction. In all cases AIDMI only supported construction of shelters in a manner that met the approval of local government.

6. Technical Standards

Did the construction agree with the technical standards of other agencies providing shelter? The Sphere standards call for the provisions of covered shelter area at the rate of 3.5 square metres (37.67 square feet) per person. In warm climates there should be adequate height and ventilation in hot areas. There

should be adequacy privacy between the sexes and for individual families; individual units should provide subdivisions for privacy. There should be adequate space for household activities. The housing should reflect cultural practices.

AIDMI obtained oral approval from local government for the location and construction material for all its temporary shelters. AIDMI built according to Sphere standards, often exceeding government construction standards. For example, government units for each family are 10'x12' in size while most of the units constructed with AIDMI support are 12'x15'. With respect to Sphere Standards, most of AIDMI's household units are 180 square feet in size; this provides space for 4.8 people according to the Sphere standard, which is larger than the average household size. The shelter does not provide

■ Analysis and Evaluation

for internal separation within each unit because of lack of space; however, these units are in conformance with local cultural practices for those people who can only afford small housing units. In almost all cases the layout provided for space for the units to grow into or spread into and almost all locations the units have been transformed from one closed room with one door to several rooms and openings and spaces.

7. Beneficiary Community Participation

Was the shelter located with agreement of the beneficiary community? One of the main over-arching Sphere standards is participation - the disaster-affected community must actively participate in the design and implementation of the assistance programme, including participatory design where each affected household should be involved to the maximum extent possible in determining the final form and materials uses.

AIDMI always spent a great deal of time meeting with the beneficiary community to negotiate the number and location of the units to be provided. The layout of the structures, and the type of material was agreed upon with each village. AIDMI required, that each community formalize their request on the Panchayat letterhead. The letter of request had to contain a list of the beneficiary families. Following construction, a letter of acknowledgement was required from the Panchayat documenting



The design of this temporary shelter is based the beneficiaries' previous shelter and is almost typical of housing found in the area.

that the work was carried out as per agreement.

8. Livelihood

Was the provision of shelter consistent with the livelihood security of households? The Sphere standards state that key livelihood support activities should be accommodated where possible. They also call for an understanding of the pre-disaster economic activities of the affected population. The access to local markets should be taken into consideration as well as access for cultivation and grazing; this can be translated to access to the sea for fisher folk.

All the temporary shelter were located close to the sea, which is appropriate for fisher folk villages. Since the units are a little larger than others, space was provided for alternative livelihood, eg. a provision store, (which has already been established in one

village). AIDMI's future activities (already begun) will deal with optional livelihood programmes such as providing training and assistance in crafts, such as rope (coir) making, candle making, incense rolling, etc. Community work sheds, where such activities can take place, will be constructed in some villages; one such work shed has already been built. However, floods of boat-and-net relief from NGOs and undecided central and state government livelihood relief has slowed down the provision of alternative livelihoods in these communities.

9. Local Norms and Health Standards

Does the shelter conform to both local social norms and public health standards? The Sphere standards call for adequate access to water and sanitation services and social facilities including health care. Water

■ Analysis and Evaluation

should be available at the rate of 15 litres person per day, should be within 500 metres of households, and queuing should not be greater than 15 minutes. There should be a maximum of twenty people per toilet (one per 50 is acceptable at first but the more adequate number should be reached as soon as possible.) Toilets should be arranged by household or be segregated by sex with a ratio women's to men's cubicles of 3:1.

Thatch structures are typical in the area and are the type of temporary structures preferred by most of the communities. The location of the housing was also agreed upon: in all cases the housing has been located in the same area where the villagers lived. In some cases AIDMI has supported provision of individual housing units on the same site as the beneficiaries previous housing if they owned the land and wanted it to be located there.

The shelters provides for ventilation and comfort of living, in contrast to other situations where outbreaks of disease have been reported and blamed on the crowding, heat and lack of ventilation.

AIDMI has supported the provision of water standpipes and sanitation facilities where needed. Provision of water, in some cases, still remains tricky. Multiple agencies and sources complicate service delivery. The water facilities meet the sphere standards, but only one set of toilets

has been provided for each village that is, however, segregated by sex. In most cases, new sanitary facilities have not been provided because the new shelter is located near to existing facilities. In some cases, demand for provision of toilets came much later. In these case, provision was made. However, provision of toilets is not universal.

With respect to social norms, the community work sheds noted above will give space for 20 women to work on specific crafts; group work under the shed gives them something to talk about other than the disaster. Since the temporary shelter is located in the affected villages the reestablishment of village society is accelerated.

10. Environmental Conditions
Is the construction consistent with environmental conditions? The Sphere standards state that adverse environmental impacts should be minimized, and that the construction should promote sustainable management of natural resources; existing trees and vegetation should be retained.

In general, the temporary shelter has been in accordance with environmental responsibility Sustainable building materials, such as bamboo and thatch, were used. Trees were not cut down; in fact, one village incorporated trees into the layout of houses and one building was even built around a tree. In several sites trees have been planted within the layout. Villagers are planting new trees

along the coast to produce cocoanuts and to serve as a barrier against cyclones in coming June. Since the housing is located close to, and within, existing villages a great deal of new land was not needed. The type of construction leaves large areas unpaved, promoting the discharge of ground water. However, asphalt sheets and tar sheets, when removed or discarded, will cause an inorganic dump.

11. Property Rights and Gender Equity

Did the construction take into account property rights reflecting equality between men and women? The Sphere standards call for the identification of property rights especially of vulnerable groups and that land ownership is established for the site on which housing is to be located. One of the Sphere project's basic tenets is that the equal rights of women and men are central to humanitarian relief. Humanitarian aims of proportionality and impartiality mean that attention must be paid to achieving fairness between women and men.

The housing is provided in the names of both the man and women of the household. The housing is located on panchayat or suitable land with the agreement of the panchayat or, as noted, individual housing is sometimes located on sites owned by the beneficiary family. More importantly, women were involved in building construction design, negotiation, and supervision in increasing

■ Analysis and Evaluation

degree. On one location, the construction committee started out with a "nominal" woman and ended up as all-women construction committee.

The existing and proposed work sheds are emerging as women-and-children space. Communities are encouraged to develop these spaces for such use.

12. Identification of the Most Vulnerable

Did the beneficiaries priorities the most vulnerable? The Sphere standards state that the provision of services should be based on the vulnerability and needs of individuals affect by the disaster; and targeting mechanisms are agreed among the affected population.

Panchayats provided a list of beneficiaries based on their evaluation of the degree of damage to housing. AIDMI encouraged communities repeatedly and persistently, to include excluded households. AIDMI also encouraged the community to focus first on the poor among shelterless victims. In one village, the president who had lost a family member set a trend by not accepting a temporary shelter due to him in favour of those in greater need. In other village *dalits* have set up separate shelter cluster with another NGO. While formal targeting criteria may not have been developed, the Sphere standards state that acceptable options include community-based targeting.

The "cash for work" scheme has provided funds for those who participated. Clearly, those who choose to participate need these limited resources and it can serve to tide them over until their regular employment (fishing related) can be again.

13. Programme subject to social/equity audit

This review/evaluation is a first of many upcoming steps in this direction. The next immediate step is monitoring recovery through GIS/MIS systems to initiate "upward accountability". Similarly use of satisfaction study, performance rating, and community feedback studies are planned, awaiting resources. ■



Communities of Mudaliarkuppam decided to have only thatch roof over temporary houses as summer heat heats sheet roof.

4. FINDINGS AND CONCLUSIONS

This section of the report presents a list of findings and conclusions from the review, some issues that remain, and recommendations for further action.

4.1 FINDINGS

- Perceptions of the community about their tragedy. Though initially in shock about the loss of near and dear ones and property, they are bravely facing the future. Trauma or helplessness or hopelessness are not common or widespread in these locations. People are happy with the temporary shelters. However, if permanent shelter provision by the government is delayed, the levels of satisfaction may drop. Heavy monsoon rain or a cyclone may cause disruption calling for another set of reconstruction measures. Those who have some definite idea about the site for permanent settlement are happier. Uncertainty about the quick availability of boats and land for resettlement is a delayed and unresolved issue.
- Government attitude. Government officials are supportive of AIDMI's efforts even after their own shelters was not occupied. AIDMI's close work with government officials paved the way for successful completion of temporary shelter in the villages where AIDMI worked.
- Effectiveness of AIDMI's response. AIDMI's overall disaster response process and approach was effective. AIDMI's decisions to send very experienced staff members to the tsunami affected area was very important in this regard. AIDMI's experience and knowledge was very useful especially to identify gaps in the provision of relief and rehabilitation services. AIDMI's teamwork, dedication, and flexibility were outstanding. This was also a good learning experience for AIDMI, especially working in a distant state where the language was not known. It has prepared AIDMI for future responses in several other states of India.
- Community-based approach. AIDMI's community based approach was very successful; ability to listen to each community, their quiet and unobtrusive methods of obtaining information, showing sincerity, and the value of the team's continued presence in the community cannot be overstated. More importantly, in letting the community take initiatives, moulding and supporting the initiatives, making them work: AIDMI has moved on from building community capacity to supporting communities to develop their own disaster response. This is a difficult and delicate shift. It needs vigilance.
- Dealing with trauma. AIDMI has discovered at least one way of naturally dealing with the trauma affecting the people. Their style of informal approach, ability to listen to the woes of the people and sympathise with them has acted as an effective healing touch for trauma. Provision of alternative employment has given a new meaning to life for the people. Work helps to alleviate the sense of loss, at least for a while. Even those who have lost their very near relatives like husband, wives or children are taking an active part in the future plans being made with AIDMI. In fact, the very mention of AIDMI's volunteers brings smiles to several faces of the people.
- Gender Issues. AIDMI has not lost sight of the gender issues. The temporary shelters have been built in the name of the husband and wife. The livelihood activities firmly focuses on women. Cash for shelter work programmes has attracted poor women among victims and for estimated 230 women 50 days of meaningful work is already provided for. The reason is that after the starting

■ Findings and Conclusions

of the normal life also women can pursue such activities, perhaps forming their own self-help groups.

- Difference in affected communities. The fishing community, though higher than the *Dalits* in caste hierarchy, is still a low caste in terms of levels of education, social mobility, economic enterprise, and occupational versatility. The existence of differentiation between communities have been noticed. The existence of *Dalits* also have been noted for future guidance.

4.2 ISSUES

- Are there still people who need temporary shelter or other services? Since so much focus on relief and rehabilitation to date has focused on the very visible fishing community, there may be other groups that have been left out.
- What happens if people have to stay in their temporary shelter for longer than expected? Will shelter last and will owners of land (where privately owned) be upset?
- Permanent shelter is a big issue, both with respect to the location and type of housing. Government guidelines that call for permanent shelter to be located a long way from the sea may result in a situation that, in a year or two (after the fear of another tsunami recedes) the fishing community will be unhappy

located so far from the sea.

- Should AIDMI remain in southern India for the long run? In what capacity? What are the implications for this expansion with respect to the character of AIDMI as a relatively small and effective organisation? What are the cost and team implications of having an on-going activity so far from Ahmedabad?

4.3 RECOMMENDATIONS

- Establish database of communities in India. A database of communities (within States) that are repeatedly victims of natural or man-made disasters will be useful to AIDMI when it responds to disasters in other areas. This will involve desk research. This can start from tsunami affected communities in Tamil Nadu, and beyond. Effective use of GIS and MIS will be useful.
- Evaluate future needs in fishing villages. AIDMI should determine whether there are people within the villages where they are working, or in other nearby communities, that still need assistance. While AIDMI is still in the field, it will be worthwhile to gather information about the demands of the people. Boats and nets and permanent housing are well known demands. There are also demands like transportation for taking the fish to the market, subsidised or free transportation for children for going to school. AIDMI

should conduct a demand survey for shelter and related recovery.

- Evaluate future needs in other communities. An analysis of the activities and needs of people not directly involved in fishing but that nevertheless are dependent on it, may be useful for AIDMI in planning future activities if it decides to stay on.
- Housing finance and other programmes. AIDMI should investigate the feasibility and need for the establishment of a fund to serve those that will not be receiving government assistance for permanent housing, or where the government assistance will not be adequate to meet the needs. A Social Fund for Housing Finance has already emerged as a need from the community. AIDMI should mold it along the lines of its Livelihood Relief Fund and make it systematic, and sustainable. AIDMI should also investigate the need to establish a programme similar to the Chamber of Commerce for Industry and Small Business implemented in the Bhuj area that provides education, training, small loans, insurance and other services to small business enterprises.
- Monitoring condition of temporary shelter. Since the construction of permanent shelter may take longer than expected the condition of temporary shelters should be monitored to determine

■ Findings and Conclusions

whether maintenance and repair are needed in order to keep the shelter livable. The ability of the temporary shelter to provide security for goods and materials needed for livelihood should be evaluated and any remedial action to increase security should be enacted if needed.

- Permanent Shelter. Although this review addressed AIDMI's temporary shelter effort in southern India, there are several implications that lead to recommendations concerning the development of permanent shelter, as follows: 1) A community-based approach should be used where

the beneficiaries are consulted and are true partners in all phases of decision-making concerning needs assessment, planning, design, and construction. 2) Small incremental additions to existing communities might be more appropriate than large-scale, completely new housing development on open land. 3) The relationship of housing and livelihood should be considered with respect to the location of the permanent shelters near sources of livelihood and the need for secure places to store equipment and material required for livelihood activities. 4) Employment of

local workers in the construction of permanent shelters should be encouraged to enhance livelihoods. 5) The local housing market, including costs of construction and housing prices, should be taken into consideration during planning for permanent shelter.

- National Role. AIDMI should quickly mobilise resources to set up and deploy its response teams at the national level during a future crisis. This is urgent. AIDMI should also use this experience to expand its research and learning activities across India, and beyond. ■



■ Annexure 1

Annexure: 1. Villages Visited and Government Officials Interviewed

Villages Visited

Puddukuppam, Villupuram District, Tamil Nadu
Mudliyakupam, Villupuram District, Tamil Nadu
Kanakchettikullam, Pondicherry State and District
Panchalpuram, Cudalore District, Tamil Nadu
Kuttiyandur, Nagapattinam District, Tamil Nadu

Meetings with Government Officials

C.V.Shanker
Officer on Special Duty, Relief and Rehabilitation, Government of Tamil Nadu

Shri K. Balachandran
Collector, Villupuram District, Tamil Nadu

M. S. Shanmugam
District Revenue Officer, Relief and Rehabilitation, Cuddalore District

Ranvir Prasad
Additional Collector for Tsunami Relief, Nagapattinam District

Annexure: 2. Highlights of Meetings with Villages and Government Officials

On March 16, 2003 through March 19, 2003 the review team met with a series of government officials and village beneficiaries in the states of Tamil Nadu and Pondicherry. Following are some highlights from these discussions.

Meetings with Villages

Puddukuppam

Impact of Tsunami

The tsunami was particularly traumatic for this village as their children were missing for two days. After the tsunami struck they all went to stay in a church for the first week (where food as well as shelter was provided).

Now they say that they want their children to work away from the sea - to get a good education so they can do something other than fish. One man said that things are so difficult now he wishes the tsunami would have taken him away.

Shelter - temporary

This was the first village that AIDMI worked with to provide temporary shelter. The shelter is constructed in rows of housing units in one area. At first some shelter was constructed using thatch roofs but the government made AIDMI and the village change to fireproof materials, such as cement sheets for roofs. They now want fans because the shelter is so hot. One housing unit has a fan and cable TV connection showing CNN.

Shelter - permanent

For permanent shelter they want cement - RCC - structures. They say they need Rs. 1.5 lakhs per house. They have picked out a site that they want which is between 300 and 500 meters from the sea. They want to locate far from the sea because they are afraid of another tsunami and can't sleep at night. But this site, now a coconut grove, is owned by a person from North India living in Chennai. The government would need to help them buy this land. They feel they can design and build their permanent shelter by themselves as they have been upgrading their own houses for years.

Livelihood

They are a part of an organisation of 19 villages and this group will decide when to start fishing again.

They got nets from an NGO but the holes are too big right now for the fish at this season, which are very small. In a month or so they will be OK. They have received 7-10 boats that came from an NGO who gave 50% subsidy and 50% loan. But they have not used these boats yet because they don't have nets. They are also waiting for more boats.

They also want three delivery vans to take fish to market (they carry the fish on their heads now - as buses don't stop at their village).

They liked doing the cash-for-work activity when they cleaned debris following the tsunami and would like to do more.

AIDMI provided this village with coir-making machines. Ropes sell. One woman complained about the rope (coir) work being hard - she would rather do candle making. Group is confident that they can continue their optional livelihood activities once fishing starts - maybe in the morning before the men come back from the sea and they have to prepare and sell fish.

Other Comments

They all had colour cable TVs before, for which they worked very hard - and now they have been lost. So they want AIDMI to give them TVs. (Note: one NGO gave a big communal TV, which was showing the India-Pakistan cricket match as the men worked on their nets.)

The villagers wondered who coordinates NGO activities because they see so many. Who will come tomorrow?

Mudliyakupam

Impact of Tsunami

After their homes were damaged or destroyed by the tsunami they went to a medical college cum hospital for shelter as their relatives, too, were affected. The Government provided the first relief package: food, kerosene, cash, etc.



Mudliyakuppam temporary shelter with fire extinguisher.

Temporary Shelter

The temporary shelter is constructed of asphalt sheets for walls and thatch for roofs in rows of attached houses. The site for their temporary shelter is privately owned by a village member (not a fisherman) who is letting them use it rent-free (as long as no coconut trees are cut down). The villagers have made many extensions to their basic units and the temporary shelter already has the appearance of a real village.

Permanent Shelter

The site they have picked out for permanent shelter is part privately owned and part government land, some designated as "wasteland". It is about 400 metres from the sea. They don't want to be as close as 200 meters because they fear another tsunami. They want to build their permanent houses themselves. An NGO from Mysore

has expressed interest in helping to provide permanent shelter. So have many others.

Livelihood

They expect to get assistance from the government and NGOs for the replacement of the fishing boats they lost. Women chose candle making, coir, etc. as part of AIDMI's alternative livelihood programme. AIDMI has supported a very impressive work shed where alternative income activities and training takes place.

They are also ready to prepare a plantation by the shore.

The president of the fishing panchayat said that he thought that both men and women should work.

Other comments

There is talent and leadership in this village. One woman had experience with self help groups

and she played big role in organising the people in the village. Later her husband became president of the Panchayat.

One reason why the people in this village seem to have a high degree of capacity and the leadership is effective it that the Panchayat deals with economic issues and negotiates in the outside world and has thus gain valuable experience. Secondly, the Panchayat president only serves one year so he must be efficient and effective. Also, their situation is clear about where they will have permanent shelter so they are not worried about this.

With respect to nutrition, we asked what food they purchased with the money they earn from fishing. They do eat vegetables daily; in fact, 2 to 3 days a week that is all they eat: vegetables and more vegetables.

Kanakchettikullam

Impact of the Tsunami

Sixteen people died in this village, including 3 children. Their first relief of food, materials, utensils, etc. was provided by government. The Panchayat developed a list of beneficiaries and gave it to NGOs. Elderly people calmed down fights about distribution of goods. Hope, an NGO in Auroville, put on a trendy puppet show to make people aware that they should not be afraid of another tsunami - but, apparently, this did not work (see below).



Temporary shelter located within Kanakchettikullam village.

The Palmyra trees in this village have been affected by the tsunami because they are not salt tolerant. They tap these trees for juice and also use them for thatch.

Temporary Shelter

The temporary shelter provided in this village is scattered among, and next to, their old houses because they did not have sufficient land area for a new temporary compound. Sometimes thatch roofs have been put on old walls. They are afraid of another tsunami (yesterday there was a rumor of another one and they did not sleep) so they are unhappy with the location of their temporary shelter because they feel exposed to danger. They are also unhappy with the new thatch houses because they let in snakes and harbour mosquitoes and rats; they used to live in pucca houses.

AIDMI provided connections to a public water line that was destroyed. 16-20 taps have been provided.

Permanent Shelter

They want to build their permanent shelter themselves as they don't like contractors: "just give us material and we can build."

They want to move farther away (to new pucca houses) than where they are now because, while they may have learned about tsunami warnings and they might be able to run away next time, they would still lose their possessions, especially TVs. They are also worried about children. They want to relocate to an area by the main road that is now a coconut grove. A woman owns this land and they don't know if she is willing to sell.

They expressed concern about moving next to other castes.

Livelihood

They want fishing boats and nets - this is the most important thing now. They are not aware of the boat replacement programme from the government. One NGO will give them 15 boats and nets.

They had a big boat in a nearby harbour but they sold it before tsunami because they could not afford upkeep; it was very advanced with sonar radar.

This was the first village that AIDMI worked with to set up coir (coconut rope) and candle making as alternative livelihood activities.

Other Comments

This village is more "suburban" than the other villages since it is located so close to Pondicherry. In fact it may not really be an independent village and is actually part of the Pondicherry government structure. Many people (maybe 20) work in Pondicherry as civil servants, and engineers.

Panchalpuram

Impact of Tsunami

In this village eight people died in the tsunami. AIDMI has made at least 10 trips here and has spent a long time with them, which they appreciate. AIDMI provided milk and biscuits right after tsunami. They also were worried about a tsunami occurring again yesterday, given the widespread speculation.

Right after the tsunami the government rapidly gave cash, plus supplies (groceries, kerosene, etc.). An NGO gave some money to a villager to purchase material but he ran away with the money.

They don't own the land on which they lived and, in fact, relocated here from another area 15 years ago. They were displaced from their original location but it is not clear why. They now live on government owned "wasteland".



Review team meeting villagers in Panchalpuram.

Temporary Shelter

This village (actually a "street" rather than a whole village) tends to be "left out". They were one of the last villages to get temporary shelter. They have a hard time requesting aid officially since they are not actively represented in, or participate in, the larger panchayat of which they are technically members.

The temporary shelter implemented by AIDMI consists of single-family detached homes based on the design of their old houses. They look comfortable and relatively roomy: 12' x 15'. Their previous houses were generally built of cement walls with thatch roofs and the temporary shelters are built with asphalt sheets for walls and thatch roofs.

However, when we met them most of the villagers were not ready to move into temporary shelter yet since they still need to build cement

floors, and obtain utensils and furniture. Only 15 or 20 households have moved in. The floors have not been done because the units have not been allocated yet. There was lots of arguing among the villagers - about why the allocation of units has not been done yet. They did paint the walls of the houses themselves so they feel they can do things once the units have been allocated.

They want us to tell PWD Department to connect fresh water line. Some of their water (from bore wells) is now somewhat saline after the tsunami.

Permanent Shelter

The villagers want AIDMI to provide permanent shelter but they don't know where. They say that the location will be determined by the larger panchayat. They have no money themselves to construct permanent houses.

Livelihood

They only had catamarans, not larger boats, so they have not received anything yet from the government.

Other Comments

As noted, they are part of a panchayat for a larger area but they don't have representation. This is one reason that they are not aware of what is going on with respect to rehabilitation programmes. There is clearly a lack of leadership in this village. An "informal" group of 7 has been formed who are supposed to make decisions but they have had no experience doing this. They hesitate.

It is not clear why this group had to move here 15 years. Was there a reason they could not get along with large group? Is it a caste issue? Are they all members of one family - and is this why they have a hard time making difficult decisions such as the allocation of units?

Kuttiyandur

Impact of Tsunami

There are 356 households in this village and 39 people died here. The tsunami was completely new to them - their ancestors never talked about such an event. AIDMI came after one week. For that first week they stayed in a temple and school since their relatives were also affected. Friends and NGOs gave food relief. Government contributed Rs 5000 (4000 at first then another 1000), 90 kg rice, and other groceries.



New temporary shelter in Kuttiyandur village.

Temporary Shelter

They designed their shelters - they like thatch. They are single-family detached units constructed among old housing sites. Some old pucca houses are still there next door - mostly damaged. This was because no other land was available and there was room among the old sites. The Panchayat controlled construction, which was carried out by a contractor.

Permanent Shelter

They are afraid to stay in their existing place. They have chosen a site for permanent housing - far away from the sea. It is privately owned by two different people. They want government to buy this land for this purpose. They say they don't mind shifting far away but they still want a shed to store nets and keep boats in their old location.

Livelihood

They have a 9 member fishing panchayat. They had 96 fiber boats damaged. Only 40 can be repaired so they need 56 new ones. They recovered 50 engines but they are

damaged by salt water and are now junk. They lost approximately 160 catamarans. They have some old catamarans that are OK but they don't have nets.

Meetings with Government Officials

Meeting with Mr. C.V.Shanker
Officer on Special Duty, Relief and Rehabilitation, Government of Tamil Nadu. He has visited sites where AIDMI is working with communities. Appreciates AIDMI's approach, and finds it sincere and effective. Hopes that AIDMI takes up more villages and communities.

Meeting with Shri K. Balachandran

Villupuram District Collector, Tamil Nadu

He said AIDMI is doing a great job. People are generally happy with what has been done so far.

We discussed the issue of what the basic requirement will be with respect to how far permanent shelter must be from the sea: 200

meters vs. 500 meters. This policy has not been decided yet. However, the Collector will have discretion with respect to whatever guideline on distance from the sea is established. If it is too far away people won't move there.

We also discussed the specifics of the government aid package for boat replacement and permanent shelter. Guidelines for permanent shelter have been developed but these are only in the draft stage. All beneficiaries will get minimum amount of land. If want more they can pay more. The layout of houses will be determined by Collector with community and NGO participation.

When obtaining land from private parties to establish a site for permanent shelter, negotiations is best way, otherwise it takes too long. Government can offer up to 200% of valuation for this purpose.

Meeting with M. S. Shanmugam
District Revenue Officer, Relief and Rehabilitation, Cuddalore District

Maybe if people's houses can be repaired they will be able to stay within 200m. If they demand to move a farther distance away that demand will be met. If they live within 200-500 meters and their houses have been damaged it is up to them if they want to shift. But all this discussion still awaits formal policy decisions since so far all this has been oral. Once this is decided they will know how many houses need to be constructed.

■ Annexure 2

Meeting with Ranvir Prasad

Additional Collector for Tsunami Relief, Nagapattinam District

He went over the various relief packages and he asked us if we wanted to construct permanent housing. The list of beneficiaries is almost complete.

Size of fleet may not be increased and number of trawlers reduced. Wants to cultivate more boat ownership but owning a boat is not like owning a car. We discussed the specifics of the government relief package for fishing boat replacement. The biggest unmet

need is likely to be nets and ice packages to keep fish cold.

We discussed the fact that different types of livelihood, other than fishing, must be addressed. In addition to fisherman there are people doing boat repairs, carpenters, ice packagers, etc. Women sell fish - but maybe there could be training for them in other areas: 1) micro tile manufacturing, 2) footwear, 3) hollow block and other construction work, 4) sewing machines. The Collector will tell us which community could use our training module.

Water management is an area that could be improved: don't use drinking water for other purpose. There is lots of desalination of agricultural land going on with other NGOs. Plantations a possibility too.

There are several organisations and private associations in villages that must be worked with: fishermen's panchayat, boat owners association, important persons in village, etc. Some are democratic, some not so democratic. But NGOs must work with them. ■



Victims are busy to complete the structures as soon as possible because community was eager to shift in new house immediately.

Annex 3: Case Studies - Interviews: 1. Temporary but still Progressive...

Tsunami hit Indian southern coast severely on December 26, 2004, damaged and also showed the nature's fury in the Puddukuppam village of Vellupuram district in Tamil Nadu. The boats were thrown on the trees and house roof. Coconut trees hung sarees, fishing nets, and household items. Entire village turned into graveyard in seconds. Dead bodies, injured people and debris were the scene of December 28, 2004 when AIDMI team reached the village. After coordinating emergency needs of people and avoiding duplication, AIDMI coordinated with Panchayat of Puddukuppam for the most urgent need in.

AIDMI believes in partnership with people. Need assessment was done with the community representatives. Victims were identified and the type of response was prioritised. This results in the first temporary shelter in the whole tsunami affected area on January 07, 2005 in this village.

Nagamben is the widow of late Mahalingambhai. She resides in this village. Cruel tidal waves of tsunami hit this village. She is one of them who is still trying to revive on her own three months after. She lost her husband around thirty years ago. At the age of sixty she married her three daughters and one son and had finished her social responsibilities. She knows fishing too. She continued it for

some time after the death of her husband. From the past ten years she started a small provision store within her house due to health problems. She lost her house costing Rupees 35000, household items costing Rupees 25000, and stock in shop costing Rupees 15000 with a total of Rupees 70000 in this disaster.

Shri Nagamben is one of the community members who entered into the temporary shelter upon completion. She immediately thought of starting her shop again within the manageable location. "Size does matter. It was more convenient and timely to start the business. The way the temporary shelter was constructed and the material was used, not only provided a place to stay but also helped me to revive my business. The best part was the location as it was within the village and surrounded by the neighbours and regular customers said Nagamben when asked about the utility and satisfaction with the temporary shelter. She managed some money and started a shop at house. This worked. It helped her to get rid of thinking of disaster and her crying for relief. Today she is earning around one hundred rupees daily and managing her life on her own.

For Nagamben it is not a temporary shelter. It gave her opportunity to show strength of community of fighting back after

any disaster. When others were thinking of relief, waiting for announcement of compensation and struggling for the registration in records she was one of the first to start building shelter. Everything was perfect: the site location, the temporary shelter size, the material used in construction, the structure type and the most important was the time. The choice was given to the community about selection. Village community selected the location, designed the type and prioritized the victims and their needs. AIDMI helped with technical expertise for layout, planning and disaster safer practices. Fire safety training by the experts and cash for work was the bonus and key factor of intervention. Affected community has never seen it before and set the disaster safer practices for the other stakeholders to improve upon.

It is an opportunity for the community to maintain the pace of recovery. This will turn the opportunity of disaster into development. "We need to take care of cleanliness, health and hygiene, sanitation facilities and check of hazardous situations. What do you mean by temporary? I am doing progress. Still government package is in a gloom. There is no clarity on it. Who will do it, how, where and when? I will continue in this shelter till the better option come out. I am just concentrating on my

■ Annexure 3

business expansion and save money for better future." Said Nagamben with a pleased smile.

– **Deepesh Sinha with the field inputs from Mehul Pancholi**

2. "No one to feed My Family"

Krishnamalben is 60 years old. She is staying in Panchalpuram village, in Devanampatti, Cuddalore district, Tamil Nadu. While at the age of 60 years when one takes a complete rest and has no work to do, she has to struggle and earn her living. The reason was December 26, 2004 tsunami that hit the coastal area. Krishnamalben had three daughters and with lot of worship and fast, she was blessed with a son. But luck was not with Krishnamalben and her son - Raji got paralysed. Raji could walk and move around but he did not have the needed strength to go for fishing. Therefore, when Raji grew young he sold off the boat that his father had and whatever minimum interest that they received from the money was used in getting the daily needs of his wife Divya, his daughter and his son. Krishnamalben also stayed with her son. In order to meet the needs of the family Divya used to sell fish and did whatever work was available. In return she used to get a small amount from which she purchased fish or flour.

This way the family was managing to live. However, the tsunami that struck on December 26, 2004, slowed down the ongoing pace of life of Krishnamalben's family. The life



became more difficult as Rajibhai and his 11 year old daughter got carried along the heavy tide that hit due to the tsunami. The only people who got survived were old Krishnamalben, Divya and her five-year-old son. When the house and family members went away with the tsunami waves, what is the value of the household items that also got destroyed? Many organisations and political leaders visited this village and promised to provide relief, but this family did not get any support, not even a temporary shelter. AIDMI, since day one, had been working for the affected communities, and it had visited this village on the very next day of the disaster. However, it was told that there was a local organisation which would be providing shelter facilities in this village. Surprisingly, during its second visit in the same area during the month of February 2005, AIDMI was shocked to see that the situation was not changed. Yes, the only change was that Krishnamalben had sent her daughter-in-law Divya to her daughter's place as they did not have proper shelter facilities. Krishnamalben's eyes still had

tears in her eyes in the same way, as it was when AIDMI team had met her for the first time on December 28, 2005.

But on March 14, 2005, the situation had changed. With lot of discussions with the local government authorities, AIDMI was able to provide support to Krishnamalben to construct her own temporary shelter. AIDMI also provided her household items and the electricity work was ongoing. When recently AIDMI reached to Krishnamalben's place, she was painting the walls of her house.

"Sister, you are the first one who came to us, saw our situation and identified our needs. Not only that you have also fulfilled them. There were many organisations that came forward and promised to help, but it was only your organisation that has helped us. I will still work, but that will require some time and support from all of you. I was mentally depressed after the disaster but it is your organisation who gave me the courage to restart my life again" says Krishnamalben.

– **Tejal Dave-AIDMI team** ■