

# **Towards Post Tsunami Livelihood Security for Fishing Communities in Tamil Nadu**

## **A Preliminary Proposal From Concerned Citizens\***

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### ***INTRODUCTION***

It is now clear that tsunamis are rare happenings. However, they create a lifetime of havoc and devastation. Tsunamis always affect only coastal communities – but here too differentially. The poor suffer more than the rich. Those who live close to the sea suffer more than those who live further away. Fishing communities in Tamil Nadu, while they lived, were rarely the center of attention in civil society. Now that so many of them have been taken away by the sea and thousands are faced with a shattered future, they are the focus of an outpouring of concern. This swell of human kindness – if it is not to take the shape of a tsunami of misplaced concerns and competing priorities – needs to be properly channelized. This requires an understanding of the pre-tsunami realities and the post-tsunami needs. This note is a preliminary attempt of a group of concerned persons with a significant fund of knowledge and work experience among fishing communities in India and abroad. It hopes to provide some modest guidelines for the formulation of a master plan by the state for action in which the vast experience of civil society organizations will be integrated and the participation of the affected communities assured.

(We are aware of the “Disaster Management in India” (Status Report) of the Government of India brought out in August 2004, on which the Government of Tamil Nadu has acted.)

## Some underlying coastal realities

- The people of the coastal communities are by and large outliers in terms of social development and livelihood opportunities despite decades of fisheries development efforts
- They contribute US \$ 600 million in foreign exchange earnings every year and provide essential and inexpensive protein for domestic consumption
- The fish production has been stagnating in Tamil Nadu while pressure on coastal resources has been increasing
- Even the artisanal fishery has become increasingly capitalized and fossil fuel dependent. This makes the fishery unsustainable.
- Fishing communities are socially differentiated where the weak/poor are always at the losing end
- While tsunamis are rare, these communities are exposed to other coastal phenomena like tidal waves, cyclones and regular monsoon fury
- Investors and government have been targeting coastal resources disregarding people's livelihoods and security in gross violation of the CRZ norms, radically changing landforms
- The coastal zone is the country's tail end ecosystem and hence the final recipient of all terrestrial pollution

## ***PHASES OF INTERVENTION***

We consider that there are three phases of intervention:

### **Short term (First month)**

Immediate relief

Commencement of trauma management

Initial measures for getting back to the normal routine

In this phase the relief measures have been overwhelming, have reached all those in need and will probably reach its final stages very shortly. Plans for trauma management were well on their way. Some initial efforts have been made. There is perhaps need for greater coordination and consolidation of the approaches to be taken. As regards getting back to the normal routine varies from center to center. In the case of fishing the lead time will vary depending on the kind of fishing methods which individuals adopt. Fears about people losing the land which they had inhabited calls for measures to institute some degree of community policing to prevent this. Unwarranted media scares about the hazards of fish consumption need to be effectively countered. This is affecting the livelihoods of many women who were not necessarily affected by the tsunami. It is also likely that fishing communities who live in the deltas close to the affected areas have not received adequate attention. Such oversights need to be immediately addressed.

The following two phases (medium and long term) are what require detailed thought and planning. It is essential that the policy of the state be clearly articulated and developed into a master plan with the roles of the actors – state, civil society and the local affected community -- clearly defined.

## **Medium term (second – fourth month)**

### ***Detailed stocktaking of land use, community needs and human and institutional resources for reconstruction.***

Present land use patterns contiguous to the CRZ should be immediately mapped and documented so that a general idea of land availability for rehabilitation and relocation can be demarcated for acquisition. These surveys should include details about contour, soil, drainage, and ground water information. That such lands are currently private property should not be advanced as an excuse for not acquiring them. Community-need-assessment surveys will also have to be undertaken and should include an educational process on what other options are immediately available for livelihood. This will be a more credible manner to assess their interest to change livelihood options. Appropriate human and institutional resources and arrangement both within and outside the community may have to be listed and creatively involved in their possible areas of involvement in the rehabilitation process demarcated.

### ***Immediate restoration of crucial communication and infrastructure***

Creation of temporary but family/community managed shelters for families to move into and restart their lives. These temporary shelters should provide basic family accommodation possibly in clusters of 4 to ten families whilst family housing is rebuilt and the village is reconstructed. These will be of low cost construction but must be adequate to provide shelter during one monsoon.

In the temporary phase toilets that do not contaminate the ground water should be provided. The sanitation options selected should be appropriate to the local hydro-geological conditions. For example in high water table areas where much of the community will be dependent on ground water for much of their water needs, pit latrines and septic tanks will be inappropriate. Ecological toilets such as desiccating and composting toilets should seriously be considered. Designs and expertise exist.

Where connecting bridges, roads, pipelines, power connections were disrupted, they need to be restored using temporary measures on a war footing. This is a priority for people to get back to some degree of normal activity.

### ***Information on options for rehabilitation***

The options for housing, alternate employment and the retraining possibilities for this should be communicated through well worked out audio-visual modules. This will help people to understand the options and provide them the freedom to make informed choices. Local NGOs and people should be provided with educational modules regarding coastal zone policy, rehabilitation and retraining options so that people can choose to move to other livelihoods

## **Long term (Fifth month onwards)**

Permanent reconstruction and rehabilitation

These measures are spelt out in the Master plan incorporated below.

## ***POLICY FRAMEWORK***

The core of a policy framework, which will go to ensure a secure future for the most affected coastal fishing communities, must clearly articulate the structure of rights over the coastal area ecosystem – an interface of land and water – and the resources therein. These rights must relate to both the use and the conservation of the resources focusing on the long-term interests of the fishing communities. The policy should focus on women-specific issues and the need to change some traditional taboos that have discriminated women. For example the taboo for women to enter the sea resulting in their inability to swim. This was perhaps the cause for the disproportionate deaths among women.

This policy should emphasise the need for greater human capacity building and an option for more labour absorptive techniques in all rehabilitation and reconstruction efforts.

While the state has the responsibility of policy formulation, which should be done through a consultative process, there should be a clearly demarcated coordinating platform/structure inclusive of government, NGOs and the local panchayats. A division of labour and responsibility should be worked out. Transparency must be assured. This coordinating body should operate on the ground through local village reconstruction and rehabilitation committees made up of local people and assisting NGOs, on which there should be gender and age-balanced representation.

Policy guidelines should be publicized through good audio visual aids. Volunteers, NGOs should be trained in such awareness raising with effective communication techniques. This process should include realistic and projected comparisons of the development options facing these communities. These must be clearly interwoven with the economic and environmental realities specific to each location.

## ***MASTER PLAN***

A master plan for livelihood security of coastal fishing communities in Tamilnadu needs to be framed after providing the affected communities the options for making informed choices regarding their long-term rehabilitation.

The overarching consideration pertains to the redefining the structure of the rights to livelihoods and utilization of coastal ecosystem space. The existing legal frameworks which facilitate this, need to be judiciously implemented with forceful political commitment. This is a master plan which is indeed restricted to that spatial reality.

### **Pre-Master Plan Rehabilitation options:**

#### **1. For those who wish to remain in fishing**

a) For those who have lost their homes, while in the temporary shelter they get an interim cash subsidy and receive appropriate fishing assets.

b) For those who have not lost homes, they register, also receive a cash subsidy and receive appropriate fishing assets.

## **2. For those who do not wish to remain in fishing**

- a) For those who have lost their homes, while in the temporary shelter they get an interim cash subsidy during which time they get into retraining.
- b) For those who have not lost homes but want to move out, they register, also receive a cash subsidy and then participate in retraining.

## **3. For those who are partially or seriously physically and psychologically affected as a result of the calamity**

- a) specific efforts for person-oriented attention should be implemented. They may be provided with longer-term cash subsidies, medical attention and greater community care.

## **4. For orphaned children, destitute men and women**

- a) specific efforts for person-oriented attention should be implemented giving responsibility to agencies who have the competence in dealing with such individuals.

## **Components of a Master Plan**

A master plan should consist of an agenda for action that covers the following realms:

(i) environmental protection of coastal land and sea, (ii) housing and related facilities of water and sanitation and lighting (iii) social infrastructure (iv) gainful employment in fishing and related activities, (v) education and training, (vi) safety and disaster preparedness and (vii) protective social security (viii) responsible fishery resource management.

The focus of the various measures of the master plan are to the extent possible, to train, enable and support the local communities to manage and implement their own rehabilitation and village reconstruction. This serves three very important purposes 1) creative and meaningful work can act as an important trauma reliever 2) it provides immediate employment while at the same time imparting training and new skills 3) it equips them with new livelihood opportunities, self respect, dignity and confidence to face the future.

## **1. Environmental Protection of Coastal Land and Sea**

Need to view the coastal area ecosystem – an interface of water (littoral zone) and land (coastal zone)– as a valuable natural asset of this nation. The coastal fishing communities, which have drawn their sustenance from this for centuries, need to be more creatively rewarded for their roles as protectors and food providers.

Need to invoke all relevant legal provisions (e.g. Coastal Regulation Zone (CRZ)) and rights to ensure that the coastal area ecosystem is duly protected using a combination of predominately natural protection measures, and where necessary use appropriate 'soft' engineering options. These should not however, infringe on the use and access rights of the fishing communities for utilization of this space, to further their livelihood.

A mapping of the coast line over a two km stretch from the high tide line (HTL) with suggestions for the appropriate green belt cover which can provide natural protection. Local specificities are very important. There is a need to induce community involvement for green belt protection and compensate them for creation of these positive externalities. The community should also be involved in participatory resource mapping and resource use.

The coastal area ecosystem is the 'tail-end' ecosystem of the country and all our terrestrial sins of pollution ultimately reach it. Measures to reduce this pollution load from a variety of sources using a menu to measures is called for.

Retain the 'priority use rights' for fishing communities in the CRZ and the Littoral Regulation Zone (LRZ). In the CRZ these would be rights to dry nets, park beachlanding crafts etc. In the LRZ these would be rights for the small-scale operators to fish, to place artificial reefs and to have the right to unpolluted waters.

There is already a wealth of information generated by various government departments, scientific institutions which should be freely made available to local communities. In this context, experts who express the willingness to creatively involve in helping communities in their efforts should be encouraged to do so, by the departments.

## **2. Housing and related facilities of water and sanitation and lighting**

Priority should be given to provide safe and convivial houses at an adequate distance from the HTL. New concepts to community housing should be promoted and the old approach of "slum clearance" and replacement by match-box flats done away with. Encourage creative architects to provide alternative designs, keeping in mind family structure and social and cultural realities. Engage the community in a dialogue on the issue of alternative sites and housing plans. Conceive a plan where space is provided around a house and only the basic 'shell' is standardized with the possibility to innovate around it. In some of the villages damaged by the tsunami, it is possible that there are many households who would be willing to settle away from the coast. Alternate house sites should be provided to them.

An overall water, sanitation and hygiene education component should be incorporated in the rehabilitation plan. The standard pit latrine is not the most appropriate for coastal belts. We have been 'locked in' to this technology and this is an opportunity to break out of it. However, the new approaches to sanitation, which are more coastal-ecosystem friendly will require a higher level of use-education.

Lighting – public and private – need a careful review. Use of solar lamps in public space and CFL's in the private space could be options to explore.

Arrangements to ensure potable water, using appropriate technological options, should be put in place. Unique features of the water table in coastal areas need to be kept in mind.

### **3. Social Infrastructure**

Greater attention and investment in community-oriented infrastructure should be given a priority. This will enhance the overall quality of life of coastal fishing communities, an issue that has been of major concern so far. Roads to coastal areas, bridges, community halls, schools, fishery-related infrastructure are major investments that can absorb a sizable amount of aid contributions and community labour. They can also become realms for conscious alternative employment training programmes for many of the displaced persons who do not wish to go back to sea for a variety of reasons.

Training in and provision of potable water supply, gray water and waste management and good drainage infrastructure, roads, bridges, culverts etc. right from the start as part of a comprehensive village development plan. Training also to manage these systems and small businesses like bio gas plants, recycling systems and sanitation infrastructure. These are future marketable skills

Training of volunteers from the area in construction of shelters/housing and low cost building material and components

### **4. Gainful Employment in Fishing and Related Activities**

For a variety of reasons – importantly due to the open access nature of coastal fishing – the economic wellbeing of fishing unit operators in several parts of Tamilnadu was not very bright. However, for the large majority, they may not be able to make any major occupational changes at this juncture. Consequently getting back to fishing may be the most sensible option. In order to facilitate this, a quick option will be to provide wood for kattumarams. Only a very minimum lead time is required to shape hundreds of kattumarams and put them out to sea. The appropriate wood for this is available in the plantations of the Govt of Kerala and the South Indian Federation of Fishermen Societies (SIFFS). These can be purchased and transported to the affected areas and if necessary traditional kattumarams makers from Kerala and Tamilnadu can be mobilized to custom make these crafts. Net webbing is readily available with the numerous companies.

Other small-scale crafts – plywood and fibre glass boats – will require slightly longer time. However, here again there are existing boat yards of the SIFFS network currently operating in Tamilnadu and Kerala as well as boat yards under the Kottar Social Service Society, can rise to the occasion. There are also many accredited private boat yards run by members from the fishing community that should be given priority.

The issue of replacement of trawlers with new trawlers is a proposition that needs some careful examination. For one it will take considerable amount of time to do this. Secondly, and perhaps more importantly, the economics of trawl boat fishing in the tsunami-affected areas were already in bad shape in the last couple of years. Several trawler owners may be open to a compensation package that will help them to stay out of the fishery permanently. This may need to be considered carefully. However, there is the situation of the crew on these trawlers. What will they do? As an interim option, the possibility of providing groups of trawler crew with second hand trawlers from the neighbouring areas can be considered, in the context of an overall resource management plan (refer point 8 below). The crew may also be informed and provided other options for rehabilitation. This possibility for reduction of the total trawler fleet

size in the southern parts of Tamil Nadu, through this approach, will bring higher returns for those who remain in the fishery. Contrary to popular perception, the overall employment potential and labour absorption of the sector will also be enhanced.

The realms of fish processing and marketing in which the role of women is very significant also needs some fresh thinking. The opportunity to introduce low-cost, hygienic fish processing techniques for the domestic market must be seized. This will require coastal space, financial and physical investments, demonstrations and training. The fishery institutions of the state that have done considerable amount of research in this realm should be creatively involved in making this transition. Fish drying and curing yards; mobile flake ice vans, ice plants etc will be required. It needs to be stressed that high investments in cold chain technology are inappropriate at this juncture.

As the areas that have been hit are homes of some of the most skilled hook and line fishermen in the country, it maybe interesting to explore the possibility of placement under special bilateral agreements in foreign fisheries for a period of one to three year. Some advanced training in seamanship should be provided to such persons before they take up such assignments. Japan's fishery, for example, is suffering from a shortage of skilled fishermen. There are also many opportunities in the Gulf Countries, which are already familiar to the fishermen of Tamil Nadu.

Coastal aquaculture has been a controversial issue in the pre-tsunami phase. Supreme Court rulings have pointed out to the gross violation of the CRZ by the coastal aquaculture industry. Considerable damage has been reported to aquaculture farms and installations. Given the adverse social, ecological and economic impacts which this industry has had on other coastal communities in the past, measures for its rehabilitation away from the coastal belt should be given serious thought. Adequate compensation should be provided to those workers who have lost their lives and alternate rehabilitation options should be provided to workers who have lost their livelihoods.

## **5. Education and Training**

There should, at the earliest, be an easily assimilated education and awareness programme to educate affected people about the realities of what has happened, how it happened, its likelihood of recurrence, the options that face them, the pros and cons of different reconstruction and rehabilitation options.

This would include raising awareness of the state of the fishery and effects and sustainability of various fishing methods, understanding the CRZ and why it is important – the impacts of neglecting or enforcing it, pros and cons of sea walls and vegetative defenses and coastal protection, how to live in a more comfortable micro-climate, sustainable fishing, alternative value-addition livelihoods in fishing, opportunities for alternative livelihoods, education and retraining outside the fishery.

For those women and others who have below middle school education, various skill training could be organized for e.g. construction, plumbing, papermaking, textile printing ecological sanitation, horticulture, vegetable gardening and health foods. Good professionals should organize these trainings so that a level of excellence is maintained and the trainees have truly marketable skills. Production units based on



these skills should be built up alongside to provide long-term employment and income.

For those who have studied up to high school but have not passed the SSLC or Plus 2, an institution be set up where these young people are given intensive education to get their certificates. This will enable them to go in for further professional training. Importance should be given to professions like nursing, physiotherapy, geriatric care, welding, plumbing, motor mechanics etc. Provision should be made now to assure the participating tsunami victims of entry into professional colleges by creating trust funds that they can draw upon.

A long term educational policy for the current and future generation must focus on the overall improvement of educational levels and infrastructure in fishing communities, including through establishment of residential fishery schools from primary level onwards.

## **6. Safety and disaster-preparedness**

Sea safety is a matter for which constant and consistent measures need to be taken. However, the first link in a sea safety chain must be at the individual community level. The physical facilities and the human resources required for this must be always in a state of alertness. The development of human capacity for disaster management and mitigation at the community level warrants top priority. The idea of a full fledged sea safety and resource management corps with personnel recruited from able-bodied, educated youth – men and women -- in the fishing community is an idea worthy of consideration in this context.

A decentralized land based technically sophisticated monitoring network, disaster response mechanisms and procedures, and local, possibly IT-enhanced communications processes which are linked horizontally across coastal space and vertically to the district disaster management cells will be required. This can be a realm for exchange of a lot of the traditional knowledge of fishing communities on weather and sea.

Encouragement and financial incentives should be given to fishermen to carry safety devices on their fishing crafts. Subsidies for walky-talkies and FM radios, GPS or cell phones are far better than subsidies for fishing nets and engines. The possibility of starting community radio project aiming at fishing communities' needs is worthy of consideration.

## **7. Protective Social Security**

Fishing is by far the riskiest occupation in the world. Loss of life is often covered by insurance schemes of state welfare funds with the contribution of fishermen. The reach of these schemes should be enhanced. The mechanism for disbursement of such welfare measures should be decentralized. There is a need to conceive a fishery disaster insurance scheme that will cover loss of life and property as a result of a collective natural disaster. The premium for this can be paid fully by the government. As the very low coverage of insurance across the coastal communities has been now acknowledged, this should also be the occasion for the state and public sector insurance companies to reach out to the weaker sections in the community with affordable and subsidized insurance policies for health, accident and old age. An

innovative scheme for insurance of assets – fishing, housing, and durables – should be devised. In this context it is worth mentioning that in the current disaster women and children were the main casualties. Insurance coverage, where it exists, is generally limited to the men alone. Though Tamil Nadu has rectified this lacuna, the coverage of women is limited.

## **8. Responsible Fishery Resource Management**

Considerable lip service has been paid for the need to move towards responsible fishery resource management. This is the occasion to take firm decisions and positive action to achieve this. Some of the fishery community groups, which are formed in the process of rehabilitation measures mentioned above, can become the core for the implementation of a strategy for responsible fishery resource management. Details of this are not spelt out here as the literature in this realm is extensive.

## ***CONCLUSION***

The proposals presented above, though they are based on considerable experience of working with fishing communities, must still be considered as preliminary. They should not be taken as models for rehabilitation and reconstruction across the coastal space. All interventions should be nuanced in accordance with the specific realities.