

CHAPTER - VIII

TSUNAMI

The killer tidal waves of "Tsunami" triggered by series of earthquakes of unprecedented scale off the Indonesian Coast struck the coastal areas of the Union Territory of Pondicherry on the early hours on 26th December 2004. The Tsunami waves hit the coasts of south India with such ferocity and suddenness that turned out to be the deadliest natural disaster in the recent history, bringing huge devastation of catastrophic proportions. Coastal fishing community and some of the poorest people living in the coastal regions were the most affected, with huge loss of lives as well as fishing crafts and tackles and destruction of habitat and houses. Children and women were affected most adversely as they were the least able to resist and were dragged into watery graves. The estimated 30,000 people became homeless in the Union Territory of Pondicherry. The current death toll is 599, that is, 492 in Karaikal and 107 in Pondicherry.

16 villages in Pondicherry and 17 villages in Karaikal have been affected. 17,432 people in Karaikal and 26,000 in Pondicherry are displaced. The Standing agricultural crops in 792 hectares of land were damaged. Owing to the tsunami 10,061 houses were damaged. Twenty-two relief camps were set up in Karaikal and twenty-six in Pondicherry, to take care of the relief operations of about 30,000 victims of Tsunami during its peak period of functioning.

The bridge connecting Karaikal town and villages located on the southern side of Nagapattinam over river Arasalar was substantially damaged. It has been temporarily restored by construction of Bailey bridge by Indian Army. Government Primary School at Kalikuppam in Karaikal was totally destroyed and many other schools suffered minor damages. There were extensive damages caused to the transformers, HT poles and LT lines which resulted in breakdown of power in the coastal area. Power supply was restored after attending to the urgent repair immediately.

The people evacuated in Pondicherry and Karaikal regions from coastal areas were accommodated in the nearby schools, marriage halls and Community buildings. School kitchens and modernised Midday Meals Central Kitchen were operated. More than 5.00 lakh food packets were distributed with the assistance of the Revenue, Local Administration and Education Departments. Headmasters and teachers of the schools provided assistance in the form of conducting census and other supervisory work and they functioned as link officials in tsunami affected villages.

A catastrophe of such magnitude and ferocity has never been experienced in the living memory. The devastation has stunned the people and left them under psychological and mental distress. Women and children are the most affected. Doctors, Nurses and para medical staff of Health Department counselled them and gave them psychological support. Orphaned children and widows were enumerated for special relief measures.

The fishermen community has borne the brunt of Tsunami. The losses incurred by them are heavy both in terms of lives lost and damage to the fishing crafts.

8.1 Immediate Relief Measures

- Government of Pondicherry announced the following urgent relief measures:
 - a. Ex-gratia payment to the family of each deceased @ Rs.1,00,000/-
 - b. Cremation expenses to the family of each deceased @ Rs. 5,000/-
 - c. Medical expenses to each injured person @ Rs. 5,000/-
 - d. Housing subsidy for each house irreparably damaged / destroyed @ Rs. 10,000/-
 - e. Grant of financial assistance per affected fishermen family to purchase utensils, Clothes etc., @ Rs. 2,000/-
- Supply of 70 kgs. of rice to affected families.
- Supply of two dhotis, two sarees, two towels and a bed-sheet to each affected family.
- Quantum of financial assistance for the loss/damages to fishing boats are as under :
 - a) Fully damaged mechanized Boats (Wooden Hull) Rs.4.50 Lakhs
 - b) Partly damaged mechanized boats (Wooden Hull) Rs.3.50 Lakhs
 - c) Fully damaged mechanized boats (FRP Hull) Rs.2.00 Lakhs
 - d) Partly damaged mechanized Boats (FRP Hull) Rs.1.75 Lakhs
 - e) FRP catamarans with OBMs Rs.1.00 Lakh
 - f) Catamarans with OBM Rs.0.50 Lakh
 - g) Catamarans without OBM Rs.0.20 Lakh
- Rs.3750/- per hectare for loss of standing crops as compensation for 792 hectares of tsunami affected land.
- Compensation to farmers who have suffered loss of cattle and poultry ranging from Rs.100 to Rs.10,000/- depending upon the nature of animal.

8.2 Long Term Rehabilitation Measures

It is proposed to implement Emergency Tsunami Reconstruction Project through PIA with the assistance of World Bank. The total cost of the project is Rs.182.91crore. The project has four components namely (i) Housing Reconstruction (ii) Restoration of Livelihoods (iii) Technical Assistance and Training and (iv) Implementation support. The details are given under Externally Aided Projects.

8.3 Rajiv Gandhi Rehabilitation Package for Tsunami affected areas

Government of India have announced Rajiv Gandhi Rehabilitation Package for Tsunami affected areas under which an amount of Rs.155.62 Crores was sanctioned towards loan and subsidy components. Government of India had so far granted Rs.72.99 Crores.

8.3 Financial Expenditure incurred due to Tsunami

In connection with various rescue, relief and rehabilitation process to the tsunami affected areas Government had incurred the following expenditure:

| | |
|---------------------------------|--------------------------|
| ➤ Central Assistance | Rs.7299.00 lakhs |
| ➤ State Funds | Rs. 585.29 lakhs |
| ➤ Chief Minister's Welfare Fund | Rs.1,014.00 lakhs |
| Total | Rs.8,898.29 lakhs |

8.4 State Plan

8.4.1. Annual Plan 2005-06

Planning Commission allowed Rs.100.00 crore in the Annual Plan 2005-06 for infrastructure development in the Tsunami affected areas. The sectorwise expenditure is given in table.

Table 8.1

| Sl. No. | Sector | Actual Expenditure for 2005-06 (Rs. in lakhs) |
|---------|-------------------------|-----------------------------------------------|
| 1. | Agriculture | 730.14 |
| 2 | Animal Husbandry | 60.00 |
| 3 | Fisheries | 599.28 |
| 4 | Forest | 212.16 |
| 5 | Health | 188.61 |
| 6 | Port | 100.00 |
| 7 | Power | 200.00 |
| 8 | Education | 231.00 |
| 9 | Community Development | 1,273.18 |
| 10 | Urban Development | 1,180.00 |
| 11 | Roads & Bridges | 2,482.00 |
| 12 | Flood Control | 471.18 |
| 13 | Water Supply & Sewerage | 543.00 |
| 14 | Public works | 1,569.00 |
| | Total | 9,839.55 |

Under Plan funds the activities undertaken by various departments are as follows:

Agriculture

The activities/schemes undertaken by the Agriculture Department under tsunami funds are as follows:-

- Assistance to PAJANCOA for three year study and monitoring of soil productivity in Puducherry and Karaikal
- Training Programme in soil reclamation skills for farmers and Departmental staff
- One time financial assistance for land reclamation and compensation for yield loss at the rate of Rs.60,000/- per hectare.

Animal Husbandry

- Payment of compensation for loss of livestock
- Mobile veterinary clinic and purchase of medicines/equipments

Fisheries

- Acquisition of land for housing etc.
- Repairs /improvements of existing fishing harbor in Thengaithittu
- Feasibility study for construction of quay in the existing fishing harbour

Forestry

- Creation of bio-fencing with the cooperation of coastal communities and establishment for nursery for forestry

Health

- Purchase of medicines, drugs, surgical items,
- Purchase of machinery and equipments

Port

- Acquisition of land for the development of existing port
- Dredging at the southern side of break water

Electricity

- Conversion of existing overhead lines into undercable system
- Provision of additional transformers
- Enhancement of existing transformers
- Extension of power supply to new domestic services and streets
- Provision of new distribution system
- Strengthening of existing distribution system

Revenue

- Construction of Emergency Operation Centre,
- Housing and incremental operating cost of PIA.

Local Administration

- Urban development
- Community development
- Repair and reconstruction of roads and bridges

Public Works Department

- Repair and reconstruction of roads and bridges
- Repair and reconstruction of social infrastructure like government buildings, health centres etc.
- Environmental and coastal protection system
- Drinking water system and sewerage
- Flood control
- Strengthening of minor irrigation

Education

- Waiver of tuition fees to students affected by tsunami studying in recognized schools/institutions.

8.5 Emergency Tsunami Reconstruction Project, Pondicherry

Government of India approached the World Bank to get credit assistance to carry out the Emergency Tsunami Rehabilitation Project, in the States / Union Territories affected by the Tsunami that hit the coastal India on December 26th, 2004. A Development Credit Agreement was signed between the Government of India and the World Bank on March 12th, 2005. The Project Agreement was signed between Government of Pondicherry and the World Bank on the same day. As per the terms of Project Agreement, the Emergency Tsunami Rehabilitation Project will be implemented by Government of Pondicherry through the Project Implementation Agency.

The Project Implementation Agency has been constituted as an umbrella organization by an order of Government of India vide G.O. Ms. 29 dated 25.3.2005 of Revenue Department and got registered as a Society (No.484/2005) under the Societies Registration Act, 1960, to undertake restoration, reconstruction and rehabilitation works and programmes necessitated by any natural calamity in the Union Territory of Pondicherry with funds provided to it by the Union Territory Government, or, received by it from the Central Government or any donor or any funding agency. The Memorandum of Understanding is executed between the Government of Pondicherry represented by Relief and Rehabilitation Commissioner,

Chief Secretariat, Pondicherry and the Project Implementation Agency, Pondicherry represented by Project Director, Projection Implementation Agency, Pondicherry on 28.07.2005.

The India Emergency Tsunami Reconstruction Project will support the efforts of the governments of India. Tamil Nadu and Pondicherry to revive livelihoods and promote recovery in the tsunami-affected areas. IDA would provide support to the GOI for assistance in Tamil Nadu and Pondicherry. The total estimated cost of the Project is US\$ 682.8 million, including contingencies, of which Bank financing through IDA would be about US\$ 465 million (about 68%). Out of the total cost of US\$ 682.8 million, the share of the operation in Pondicherry is US\$ 84.4 million.

The project has the following four components in Pondicherry: (a) Housing Reconstruction (b) Restoration of Livelihoods (c) Technical Assistance and Training (d) Implementation Support.

In Pondicherry all implementation responsibilities lie with the Project Implementation Agency, a Society registered under the Societies Registration Act. The PIA will be monitored by a State Level Empowered Committee. Field Level Monitoring will be facilitated by two Regional Project Monitoring Committees.

The IDA Financing will be routed through GOI to the Government of Pondicherry under the Plan Budget. The recommendation of the 12th Finance Commission regarding back to back lending to States by the GOI will be implemented in this Project.

The funds once received by the State Finance Department will be released to PIA and they operate their account.

8.6 Project Description

Housing Reconstruction

The housing component which constitutes about 27% of the project expenditure and it will be implemented by the PIA. The construction / reconstruction of houses will be done either directly by the beneficiaries or through the machinery of PIA through contractors. Construction of infrastructure at relocation sites will be implemented by PIA through contractors.

Restoration of livelihood

Under this component assistance to revitalize the livelihoods of the affected families will be provided through assistance in fisheries (only infrastructure related work) and agriculture.

Technical Assistance and Trainings

This mainly consists of studies for assessment of the coastal vulnerabilities, needs associated with coastal zone protection and hazard risk management, consultancies for technical assistance and training required for the implementation of the other project components. The consultancies will be managed by the relevant

line departments but paid for and accounted by the PIA i.e. the society.

8.7 Project Management

This component will finance incremental operating costs such as staffing, office expenses, furniture, hiring of vehicles etc. incurred by PIA and the participating line departments. It will finance cost of financial and technical audits, costs related to other quality assurance arrangements and Environment & Social Assessment.

WORLD BANK ASSISTANCE FOR TSUNAMI RECONSTRUCTION

(Rs. in crore)

Table – 8.2

| Sl. No. | Category of Assistance | Amount of the credit allocated | % of expenditure to be financed |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------|
| 1. | Repair and Reconstruction of damaged / destroyed by tsunami and providing facilities and amenities relating to housing repair. | 49.07 | 60% of such other percentage as the association may establish from time to time |
| 2. | Restoration of livelihood, repair / reconstruction of public buildings and other public works, technical assistance and training and implementation support. | 122.00 | 100% |
| 3. | Incremental operating costs. | 9.39 | 75% |
| 4. | Technical Support | 2.45 | 100% |
| | Total | 182.91 | |

Funding of the Project

The above Externally Aided Project will be funded as follows:

(Rs. in crore)

Table – 8.3

| Sl. No. | Name of the scheme | Project cost | Approved outlay 2005-06 | Revised outlay 2005-06 | Approved Outlay for Annual Plan 2006-07 |
|---------|----------------------------------------------------------------------------------------------|--------------|-------------------------|------------------------|-----------------------------------------|
| 1. | Emergency Tsunami Reconstruction Project, Pondicherry with the assistance of the World Bank. | 158.28 | - | 75.00 | 83.00 |

Rs.75 crore was released by Government of India in the Annual Plan 2005-06. The entire allocation has been released to Project Implementation Agency to take up works approved under World Bank Assisted Programme (EAP).

Land Acquisition

In order to provide safe alternate accommodation along the coastal areas to the tsunami affected victims in the backdrop of Coastal Regulations Zones, Government of Pondicherry has acquired and taken possession 66.59.74 Ha. of lands in Karaikal district. Land to the extent of 20.29.68 Ha are being acquired in Pondicherry District under Land Acquisition Act. All the above acquired lands are well beyond 500 metres from the high tide line and the proposed construction of houses in these land are of disaster resistant type.

Involvement of NGOs

Policy guidelines have been framed vide G.O. Ms. No.29, dated 15-03-2005 for the participation of NGOs /voluntary agencies / individuals etc. for the construction of houses in the Tsunami affected areas. So far 49 NGOs have voluntarily come forward to undertake the Tsunami rehabilitation works. The financial soundness capability to complete the work, the source of funding blacklisted details etc., are being scrutinized before allotting land to them for construction of houses / dwelling units under Tsunami Development Projects.

Tsunami Monitoring by the High Level Committee

A high level committee with the Chief Minister as the Chairman and all Ministers, Secretaries, coastal area M.L.As, etc as members has been reconstituted to speed up the rehabilitation works and review the rescue, relief and rehabilitation operations in the Tsunami affected areas.

8.8 Annual Plan 2006-07

Planning Commission approved Rs.303 crore for Tsunami Reconstruction Programme which includes Rs.220 crore under State Plan and Rs.83 crore under World Bank Assisted Programme. But in the Revised Estimate state, Ministry of Finance, Government of India allowed only Rs.170 crore under Plan for Tsunami Reconstruction Programme. Sectionwise allocation is as follows:-

(Rs. lakhs)

Table 8.4

| Sl. No. | Sector | Approved Outlay | Revised Outlay |
|---------|-------------------------|-----------------|----------------|
| 1. | Agriculture | 100.00 | 100.00 |
| 2 | Animal Husbandry | 100.00 | 100.00 |
| 3 | Community Development | 900.00 | 950.00 |
| 4 | Education | 300.00 | 146.00 |
| 5 | Fisheries | 200.00 | 1,618.00 |
| 6 | Flood Control | 4,000.00 | 1,500.00 |
| 7 | Industries | 30.00 | 30.00 |
| 8 | Minor Irrigation | 25.00 | 25.00 |
| 9 | Medical & Public Health | 200.00 | 2,296.40 |

| Sl. No. | Sector | Approved Outlay | Revised Outlay |
|----------------|-------------------------|------------------------|-----------------------|
| 10 | OAS | 200.00 | 2,500.00 |
| 11 | Ports | 1,000.00 | 50.00 |
| 12 | Power | 200.00 | 200.00 |
| 13 | Public Works | 1,970.00 | 393.60 |
| 14 | Roads & Bridges | 11,000.00 | 5,305.00 |
| 15 | Tourism | 500.00 | 500.00 |
| 16 | Urban Development | 1,000.00 | 1,000.00 |
| 17 | Water Supply & Sewerage | 275.00 | 275.00 |
| | Total | 22,000.00 | 17,000.00 |

Rs.83 crore approved under World Bank Assisted Programme on back to back basis will be released to PIA for implementation of programmes approved by World Bank.

8.9 Eleventh Plan 2007-12 and Annual Plan 2007-08

Under Tsunami Reconstruction Programme, a sum of Rs.250 crore may be released in the Annual Plan 2007-08 which includes Rs.50 crore, reduced in the allocation for the year 2006-07