

ASSESSMENT OF THE TSUNAMI RECOVERY IMPLEMENTATION IN AMPARA DISTRICT*

A. OVERVIEW OF DISTRICT

1. Ampara has a population of about 600,000 and an area of 4,431 sq. km in the dry zone of Sri Lanka. Coastal areas in the north of the district are very densely populated (23,000 persons per sq. km in Kalmunai). The coast is characterised by its sandy beaches and lagoons. The district has an ethnically mixed population of 41% Muslims, 39% Sinhalese and 19% Tamils, with the coastal population consisting mainly of Muslims and Tamils. Ampara has suffered severely from more than 20 years of civil war. Internal displacement, damage of houses, loss of livelihoods, high proportions of single-headed households and damaged infrastructure were already acute problems before the tsunami, with 65% of the population below poverty line. The LTTE is present in parts of the district.

2. Ampara was the district most severely affected by the tsunami in Sri Lanka, with 11 out of 20 divisions struck. More than 10,000 persons died¹, and 38,000 families were displaced. Most of them are staying with relatives and friends, while others stay in 67 welfare centres. Life is especially difficult for displaced women due to the lack of privacy in the temporary accommodation facilities.

3. Priorities for reconstruction emphasised by the affected population are (i) provision of permanent housing, including basic infrastructure such as water supply and power and (ii) livelihood support. Most acutely, adequate transitional shelters need to be provided – many of the displaced are in tents or tin-roofed shelters that are extremely uncomfortable in the hot season and that lack separate rooms for men and women. The building of permanent houses is critical to accommodate about 15,000 displaced families who resided within the 200-metre buffer zone along the seashore. Restoration of livelihoods will include provision and repair of fishing boats and fishing gear, desalination and clearing of agricultural land, and provision of capital for restarting small businesses and tourism enterprises.

B. FINDINGS OF POST-TSUNAMI DAMAGE & NEEDS ASSESSMENTS FOR AMPARA

4. The tsunami resulted in damage to 40 schools, of which 25 were completely damaged. Children from these schools attend evening classes in undamaged schools, reportedly with a 90 percent attendance, although transportation is a problem in some areas. Eight health buildings including equipment and vehicles were lost and 82 places of worship damaged. Speedy action was taken to prevent the spread of diseases. However diarrhoea is now on the increase, since many NGOs have stopped providing safe water. Malnutrition is increasing, due to a rise in local food prices.

* This report was prepared by a multi-stakeholder and multisectoral team comprised of Mr. Ramraj Narasimhan (Team Leader, UNDP); I.M. Ibrahim (FCE); Ms. Camilla Orjuela (Swed. Emb.); Mr. Kanazawa (JBIC); Mr. G.W. Kaveendararaja (JICA); Mr. Ayam Muhadeen (Muslim representative); Mr. N.I. Wickremasinghe (NWSDB); Mr. Bawa (Dir. Planning); Mr. Najeeb (District Land Use Planner), Mr. M.S.M. Najeeb (Asst. Dir./CEA). Consultations also took place with the TRO and the LTTE district political wing leader.

¹ This is the most common figure used, although discussions with district officials during the mission suggested that the number of deaths may have been significantly less, i.e. slightly in excess of 6,000.

5. Of a total of 16,180 fisher families residing in the district, about 6,000 families were affected by the tsunami, and 2,100 boats were destroyed while 500 were partly damaged. Repair of damaged boats and engines and provision of fishing gear have been initiated by Ceynor Foundation and some NGOs, but to a limited extent. Besides fisher folk, a large number of people in the formal and informal sectors lost their sources of income. Many irrigation channels were damaged by the tsunami and later by heavy rain, while paddy lands were covered by sea sand. Damage included 390 ha of agricultural land (of which 290 is paddy land) and loss of 29,500 poultry, 3,400 cattle and 1,100 goats. In the tourism sector, 34 hotels and guesthouses located in Arugam Bay were damaged.

6. All damaged major roads were temporarily repaired and are now passable. Some local roads have been repaired, while other repairs continue with the participation of villagers. The Arugam Bay Bridge was restored with a temporary truss bridge; however, access roads are of a very temporary nature. The Road Development Authority (RDA) has developed a detour road that bypasses Arugam Bay and runs through the national conservation forest.

7. The Ceylon Electricity Board (CEB) made immediate repairs to restore power supply to the affected areas. Power is now available in almost all areas including some temporary resettlements where the displaced reside in huts or tents. No rehabilitation of damaged power supply is being carried out within the buffer zone.

8. Water is currently being supplied to all the affected people either through pipes, water tanks or dug wells. Thanks to NWSDB's immediate actions and the assistance of NGOs, the main portions of damaged distribution pipelines have been repaired and polluted dug wells cleaned, although some dug wells remain salty. Basic toilet facilities are provided in the camps. Poor sanitation facilities in the district that existed even before the tsunami pose a risk of further environmental degradation in the region.

9. Table 1 below summarizes losses and damages assessed by TAFREN, LTTE and the donor community through the Joint Needs Assessment (JNA), while Table 2 shows financing requirements for the tsunami recovery programmes in Ampara District.

Table 1: Estimates of Losses and Damages

	Unit	JNA	TAFREN/GOSL	LTTE	Ampara Mission ²
Displaced Families	No.	-	38,624	37,988	38,002
Deaths	No.	-	10,436	6,897	6,096
Injured	No.	-	6,711 ³	6,771	6,711
Missing	No.	-	340 ²	2,207	161
Damaged houses (fully)	No.	29,097	17,117 ²	18,977	17,117
Damaged houses (partially)	No.	-	10,455 ²	8,628	10,455
Damaged schools	No.	38	40	40	40
Damage to health institutions	No.	13	14	14	14
Damage to road network	Km	N. A.	N.A.	RDD:44.4 Local: 330.6	RDD: 41.3 Local: -N.A-
Damage to fishing craft	No.	-	1,673	1,532	2,100 (fully) 500 (partially)

Table 2: Ampara District Tsunami Recovery Financing Requirements (USD Mn.)

Education	13.38
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² Based on information received from District officials during this field mission.

³ Source: National Disaster Management Centre, Ministry of Women's Empowerment and Social Welfare

Health	16.63
Housing	101.2
Power	15.14
Water and Sanitation	32.67
Fisheries	6.85
Tourism**	1.6
Roads	22.27
Railways	0
Total	209.74
% of total island-wide	15.8

Source: ADB, JBIC, and World Bank. Sri Lanka 2005 Preliminary Joint Tsunami Damage Assessment.

C. KEY CONTEXTUAL ISSUES

10. **Socio-Political Tensions.** There is a widespread impression in the district that reconstruction in the East is being neglected in comparison with the South, reinforced by media coverage. The fact that the buffer zone will be 200 m in the East but 100 m in the South and West is interpreted as a sign of favouritism, particularly as most parts of the Ampara coastline lie sandwiched between the sea and the lagoons. This difference will need to be fully explained by the government at the same time as they provide more information about reconstruction plans for the East. A lack of clear information about these subjects is aggravating the frustration of people in the district. In Kalmunai, hundreds of people staged a two-day hartal, blocking the Batticaloa road. These protests may grow and even turn violent unless the government can respond quickly.

11. All ethnic groups expressed a feeling of being disadvantaged. Muslims (making up 56% of the displaced persons in Ampara) stressed their lack of representation when the government and LTTE negotiate a joint mechanism for channelling tsunami aid. People from groups whose representatives had not been elected to Parliament complained that they had no voice and thus less development in their areas. Sinhalese not affected by the tsunami felt neglected compared to the Muslims and Tamils in the coastal areas. For instance, water is distributed through pipes from the inland to the coast without supplying water to the inland Sinhalese areas. Such grievances may continue to grow, as the reconstruction efforts will concentrate on Muslim and Tamil areas.

12. Support needs to be continued for those affected by the war, in order to decrease the sense of unequal treatment and neglect of the needs of conflict-affected people. Land disputes related to illegal encroachment constitute a major problem, especially where the LTTE has taken land from Muslims, e.g. in Pottuvil. Several civil society initiatives to mediate between the concerned parties have emerged since the cease-fire and should be encouraged. The split in the LTTE has led to violence and distrust between Tamils, while security concerns limit possibilities for involving LTTE representatives in reconstruction planning and coordination.

13. **Local Capacity of Government Structures.** The Government Agent (GA) has created eight committees to tackle the tsunami recovery, of which five are functioning with government, UN and NGO representatives meeting regularly to coordinate with regards to livelihood restoration, temporary shelters, resettlement, health/sanitation and data collection. The information flow from the central government to the district secretariat (DS) level through the GA's office seems to function well, while that from the DS to the community faces a bottleneck. The GA's efforts to interact with the community appear insufficient, and opportunities for people to submit grievances are limited. Many

communities proactively assessed needs, collected information and formulated plans for reconstruction (e.g.: detailed resettlement plans in Maruthamunai), but there is no mechanism for these initiatives to be communicated to and made use of by the authorities. Coordination is also lacking between the central and local governments (GA and DS vis-à-vis Municipal Council/Pradeshiya Sabas). The Urban Development Authority (UDA) and the National Housing Development Authority (NHDA) at the local level are staffed with a limited number of personnel in Ampara, and are not mandated to plan and design resettlement houses as the plans are prepared by the UDA in Colombo.

14. A lack of resources is a critical issue for the Provincial and Municipal Councils to fulfil their mandates, especially in the fields of health and education. Kalmunai Municipal Council has lost 50% of its revenue from assessment tax. There are severe shortages of staff (35 employees for a population of 135,000) and of funds to provide adequate urban infrastructure including an improved drainage system. The 20% reduction in government budget allocations for Pradeshiya Sabhas in recent years have weakened their capacity. NECORD, working with the Provincial Council Secretariat, is an example of a well functioning mechanism with good capacity in Ampara. NECORD is however awaiting clear signals as to how it should be involved in reconstruction.

15. It appears that government structures cannot adequately manage reconstruction efforts alone, and that therefore INGOs and NGOs must play important roles. Altogether, 65 INGOs are active in Ampara, with some working through local partners. The number of NGOs involved (e.g. 40 in the psychosocial field, 28 in water and sanitation) requires good coordination. It is reported that some INGOs do not attend coordination meetings and that local NGOs and CBOs have problems attending meetings far away. While the work of NGOs is generally appreciated, there is also a feeling among the community that they do not always fulfil their promises and that they lack accountability and transparency.

16. **Gender.** Women in Ampara district have already borne a large burden due to the war. Female heads of household have been forced to take on new roles and more responsibilities. Widows (whether due to war or tsunami) are especially vulnerable, since they have to deal with damaged properties, income generation and childcare on their own. More women than men died in the tsunami, and the care of children in households headed by widowed men will need special support.

17. Lack of privacy for bathing, changing of clothes and toilet needs is a source of stress for women in welfare centres. Separate rooms for men and women should be included in the design of transitional and permanent housing. Sexual abuse and violence against women have been reported in camps, with increased alcohol and drug abuse by men exacerbating this problem. Muslim widows who, according to custom, should remain in seclusion during a period of mourning face difficulties in camps, and also risk being excluded from assistance programmes.

18. Beyond the focus on fishing and farming, women involved in poultry farming, drying and marketing of fish, tailoring, weaving and in other small businesses (shops, making string hoppers, etc.) need support as well, in the form of training and capital.

19. Resettlement needs to be planned in such a way that women can continue their income generating activities (e.g. related to fishing and tourism) in the new location. Women's presence in decision-making and implementation activities is generally low, especially within government structures. A limited capacity and absence of mechanisms for the central and local government representatives to consult with the communities, limits opportunities for women to voice their concerns. Women's interests are taken up by INGOs and local organisations, especially local women's organisations, but in general civil society

organisations are also male-dominated. Consultation with women regarding house design is important as women bear the main responsibility for maintaining the house. Compensation and relief assistance is paid to a joint account for all adults in the household and new houses will be registered under joint ownership.

20. **Environment.** The environment in the district continues to deteriorate after the tsunami. Mixed solid waste and discharged wastewater are huge problems worsening the urban environment, in particular, in Kalmunai where the population density is extremely high. Overall, only 20% of solid waste, including debris, is collected, with the remaining amounts dumped in the coastal area and lagoons or used for landfill. The capacity of the local authorities responsible for solid waste management is extremely limited. For example, there is only one tractor, one trailer and 4 labourers in Pottuvil Pradeshiya Sabha, and 35 labourers in Kalmunai MC. The solid waste disposal site is not well designed and exhibits a high risk of contamination to the groundwater and nearby water streams. The Central Environmental Authority (CEA) has prepared guidelines for solid waste management, which however are not followed. Existence of the temporary camps and construction of emergency roads near natural conservation areas pose a risk of deforestation and environmental deterioration. The loss of biodiversity due to the tsunami is also a major concern.

21. **Land Issues.** Scarcity of land in the coastal areas is a key problem, especially in densely populated Kalmunai. Lagoons and marshlands restrict options for resettlement of thousands of families who earlier lived within the 200-metre buffer zone. Vacant government-owned land is scarce in the coastal areas. Where paddy land and marshlands have been identified for resettlement, they need land filling, which will result in increased costs and time, and poses a problem of where to get fill material. Acquisition of private land by the government is not an alternative due to the urgency. Negotiated purchases, while more costly, will also take some time, since government valuation is not likely to reflect market value. Hence sufficient funds need to be allocated.

22. **Risk Reduction** There is now greater awareness among the community regarding disaster risk reduction after the tsunami. This can be capitalized on to conduct disaster preparedness and response programmes to minimize vulnerability. There is also an interest in learning about appropriate, disaster-resistant housing construction techniques for common hazards like floods and cyclones (in addition to tsunamis) - this will need to be translated into reality. Since a lot of land filling is envisaged, especially in the northern part of coastal Ampara, it will be imperative to take care of associated risks – drainage, flooding, etc, which can be frequent during the monsoon seasons.

23. **Basic Human Rights.** Almost 1,200 children have lost one or both parents due to the tsunami. The Department of Probation and Child Care cooperates with UNICEF to ensure their future. Under-aged military recruitment has increased in the district, and needs to be addressed. The presence of military/weapons in and around camps is another concern, since the Special Task Force (STF) manages and provides security to 42 camps. Legal advice and rights awareness activities have been conducted by the Centre for Legal Aid, which also assists in the issue of death certificates. Legal clinics have been planned by the government, supported by UNDP and other agencies, where people can apply for lost documentation. The Human Rights Commission has received 27 tsunami related complaints (and resolved 5 of them), most of them related to relief; its capacity needs to be significantly strengthened. The lack of information and consultation with communities, especially IDPs, is a problem. A typical example is a plan prepared by the central government (UDA) to build two-story apartments in the 200 m - 400 m zone, without considering people's preferences. Lack of consultation with communities regarding resettlement might lead to violations of people's rights to decide where and how to live. In the absence of locally elected bodies and

efficient structures in the district, people in Ampara are unable to hold the authorities accountable or channel the grievances to the central government.

24. **HIV/AIDS Risks.** There are only four registered cases of HIV in the district, but a lack of facilities to screen people suggests that the number of actual cases may be substantially larger. Frequent movement of people (tourism, work in other countries, displacement) and reported sexual abuse may increase the risk of sexually transmitted diseases.

D. IMPLEMENTATION OVERVIEW

25. **Housing.** Affected families in the district expressed the desire that housing reconstruction be carried out with the participation of the community from the design stage until completion, in partnership with the NGOs, using government guidelines on size and materials. UDA would be involved in approval of the site and site planning, while NHDA would monitor the construction process. The capacity of the two agencies needs to be reinforced to deal with such increased responsibilities. Also the approach must be one that incorporates construction techniques that are disaster resistant.

26. The priority is to move households still in refugee camps to transitional shelters. The number of needy families is not yet clear, as there are a large number of families still with friends and relatives that may not be willing to move. Repair of partly damaged houses, based on government consent to permit their rehabilitation within the 200m-400m band, is also a priority. This can be achieved through community participation and with NHDA technical guidance and NGO support. Scarcity of land is a major concern in northern parts of coastal Ampara, while coastal divisions in the south – Akkaraipattu, Ninthavur, Thirukovil, Pothuvil and others, have fewer land problems.

27. The provision of permanent housing, especially in the south, will require careful coordination with service providers such as NWSDB, CEB and others to ensure that the services can be provided by extension of current layouts, rather than large-scale, new schemes, which might take a long time to materialize. In other densely populated areas, local solutions have to be explored and accepted for resolving the shortage of land, such as filling of land currently used for one season of cultivation. Construction of permanent housing in these areas can be expedited through NGOs once suitable land is identified with community participation. The relocation of damaged houses in Arugam Bay to areas immediately outside the buffer zone may not be accepted by households that own guesthouses, small hotels, or shops within the zone. This issue should be amicably resolved through consultation with these households, based on the government policy.

28. A massive demand for building materials is foreseen, especially sand, cement, steel, bricks, timber and tiles. How such materials will be sourced should be identified in advance to minimize inflationary spirals, environmental damage, bottlenecks, etc. The housing for fishermen has to be as close to the coast as possible. Also, in light of the custom that Muslims provide a piece of land, a house and a well when they marry off their daughters, provision of individual houses instead of apartments seems appropriate in these cases.

29. **Education.** Adequate means of transportation for children going to temporary schools should be urgently provided. Bicycles have been provided by some NGOs, but more need to be distributed in a systematic and transparent manner. Rerouting of buses from camps to schools needs to be discussed with private bus companies. Displaced people still residing in school buildings should be prioritised for provision of transitional and permanent shelters, as these schools need to be cleaned, repaired and re-equipped. Schools that do not need to be relocated should be rebuilt or repaired and upgraded as soon as possible. MoUs

between the Ministry of Education, NGOs and donor agencies for the reconstruction of the remaining damaged schools should be expedited. At the same time, land has to be identified through local consultations for schools that need to be relocated, to ensure they are easily accessible. UDA's capacity for consultations should be strengthened so that sites are selected with minimal delays. In this time of social disruption, it is especially important that girls' access to schooling be maintained. In addition, the psychosocial needs of affected children require a long-term commitment, cultural sensitivity and capacity building of local resource persons such as teachers and local volunteers.

30. In the medium term, all schools in newly identified locations should be completed with assistance of donor agencies and NGOs, according to the design standards laid down by the central ministry that should incorporate measures for risk mitigation. Psychosocial support should continue to be available over this period and disaster preparedness should be made part of the curriculum. Joint activities between schools catering to children of different ethnic groups to increase interethnic contacts would make a positive contribution to long-term reconciliation. Finally, it will be important to bring all schools up to the same standards as those of the reconstructed schools.

31. **Health.** In the short term, funds allocated by the Provincial Council for rent of buildings and vehicles must be adjusted upward to meet increased price levels⁴. New medical personnel need to be recruited to fill at least the positions that are vacant due to the death of medical personnel in the tsunami. Government approval processes should be accelerated so that the repair and rebuilding of health facilities that don't need to be relocated can start as soon as possible. Land must be identified and made available in preparation for relocating buildings. Sufficient daily food should be ensured to combat malnutrition among fishers and farmers while they re-establish their livelihoods. Department of Health, NWSDB, INGOs and UN should coordinate to ensure that sufficient clean water is provided to camps and resettlements to prevent the spread of diarrhoea and disease. Septic tanks need to be emptied regularly. Nutrition and personal hygiene information should be provided to those in camps and temporary settlements.

32. In the medium term, health buildings will need to be rebuilt and re-equipped. Appropriate sanitation, water distribution and garbage disposal services will be required by the people who have resettled in new areas. The District Health Education Bureau should also be strengthened to take care of the needs for health education in the new settlements.

33. **Livelihood Needs.** The priority should be placed on assistance to repair damaged boats and to provide fishing gear, cold storage houses, and carts for fish selling, as well as on the construction of wadis/huts for the fishers' activities. The repair of damaged channels and removal of sea sand from paddy land, with technical assistance for desalination is also urgent. The provision of grants, micro credit and/or concessionary loans to SMEs, in addition to the provision of vocational training and business-development services to the self-employed (including home-based work) and small businesses, with emphasis on the construction industry and women, is vital to restarting businesses, with the provision of equipment and tools to masons, carpenters, etc. a useful complement to this. Short-term assistance can be provided by NGOs, with 15 to date having expressed interest in doing so. The Department of Fisheries needs to coordinate benefits so that they are provided to all affected people (fishermen, labourers, fish mongers, fish transporters) in a fair and transparent manner.

34. In the medium term, water tanks should be constructed to enhance agricultural outputs, while the continued provision of micro-credit facilities to SMEs will strengthen

⁴ For instance, the rent of a minivan has increased from 1,000 to 3,000 Rs/day.

enterprise development. Given the likely duration of the recovery and ongoing development needs, the continued provision of vocational training, especially in the construction sector will continue to be necessary.

35. **Tourism.** Pottuvil is a well-known coastal resort that had a number of hotels and rest houses before the tsunami. Almost all these facilities were destroyed. Some hoteliers have already started repair and reconstruction of damaged buildings located within the buffer zone. A major issue for hoteliers, in particular for small local entrepreneurs, is the shortage of funds. While the government has announced a credit facility for micro and SME businesses, no local hotelier appears to be eligible. Unregistered hotels, guesthouses and rental houses are facing enormous difficulties in finding funds to restore operations. In addition, both the fisheries and hospitality industries compete for coastal areas, creating tensions regarding land/sea use.

36. Priority should be given to making the government-guaranteed micro-credit facility available to hotel businesses. A land use plan for the coastal zone needs to be updated to take into consideration the competing needs of both the tourism and fishing industries. Furthermore, polluted dug wells need to be cleaned and infrastructure, including a reliable power supply, piped water and adequate access roads, needs to be restored. Beyond the immediate term, priority should be given to the protection of coastal areas from degradation through strict regulation of land-use. Hotel businesses should be regularized so that unregistered family-type guesthouses are given an opportunity to reopen.

37. **Social Protection.** Authorities should continue close cooperation with NGOs, the UN and other donor agencies to identify single parent households, children who have lost one or both parents, disabled persons and other vulnerable individuals, in order to see that they receive the assistance they are entitled to. Awareness campaigns using local volunteers should target the excessive consumption of alcohol and drugs. In addition, the sale of alcohol close to camps should be controlled. Psychosocial programmes, so far mainly focusing on women and children, should be extended to men. Finally, dependency on relief assistance should be addressed by providing incentives for participation in reconstruction and community work, as well as access to credit for those wishing to start their own businesses. Efforts should be made to encourage contractors to employ local people (especially from vulnerable groups) for the reconstruction of infrastructure.

38. In the medium term, all vulnerable groups – whether affected by tsunami, war or poverty in general – should be eligible for social protection programmes (Samurdhi, Social Welfare Payments, Self-Employment Insurance Scheme). When creating livelihoods, the possibility of making programmes adaptable should be considered, e.g. providing seasonal labourers with opportunities to increase their income through self-employment during the off-season. As for children, child-friendly environments in schools and new settlements should be created as a priority.

39. **Transport Needs.** For A and B class roads, one will need to take into account the monsoon season in planning the extensive work that is needed to bring them up to national standards. Embankments and sections approaching the Arugam Bay Bridge are especially subject to erosion during the monsoon. A detour road to bypass Arugam Bay would help alleviate traffic congestion on the Arugam Bay road. Improvements to local roads should be prioritised in consultation with the affected communities. An immediate priority is the improvement of access roads to the temporary resettlement camps.

40. **Power Needs.** Power is now available in almost all areas except the 200 m buffer zone, although frequent power cuts happen, particularly in Pottuvil, where the transmission line runs through the jungle. Priority should be given to improving service to the temporary

shelter sites and to making service in certain strategic zones, such as Pottuvil, more reliable. As permanent resettlement sites are identified and developed, they will of course require power connections as well. The human resource and financial capacity of the CEB is perceived as weak, given its huge deficit. Therefore, assistance in improving their overall institutional capability is seen as essential to the longer-term success of the recovery effort.

41. Water and Sanitation Needs. Following the departure of several emergency NGOs, only a limited amount of clean drinking water is available in most of the affected areas, particularly in the camps. The NWSDB should coordinate with the municipal councils to ensure that the required minimum amount (40 litre/person/day) is supplied to the entire population, but especially to those in the camps. Further cleaning of polluted dug wells may not be practicable, as most of the remaining wells are not immediately recoverable given that groundwater is heavily polluted or brackish. No water is supplied to areas within the 200 m buffer zone. NWSDB has prepared a proposal⁵ for rehabilitating and rebuilding damaged water supply and sanitation facilities in Ampara, which covers not only restoration but increased capacity where the demand is high such as Pottuvil, Ullai and Panama, Lahugala, and Thirukkivil. However, in the next 12 months, priority should be on the repair and rehabilitation of damaged facilities, as well as on the extension of distribution lines to households living near the buffer zone that previously depended on dug wells.

42. Provision of water not only to the affected population but also to those awaiting water for a long time will help minimize social/ethnic tensions. The proposed water supply scheme will require modifications depending on the selected locations of the resettlements. The scheme also includes sewage disposal systems connected to a sewage treatment plant to accommodate sewage from the resettlement areas. A sewage treatment plant is also recommended in Pottuvil to preserve the area's beauty (conventional lagoon type is recommended if land is available). NWSDB's capacity to implement the proposed programmes appears adequate. They have sufficient numbers of qualified staff in planning, designing and construction supervision. Local consultants can be engaged for survey and study work. The implementation arrangements employed for the ongoing Rural Water Supply Project will be appropriate except for the proposed urban area projects, given its approach that maximizes stakeholder participation. Local contractors can undertake most of the construction, although much of the water treatment equipment including pipe materials will need to be imported.

43. Coastal Protection Needs (Environment). Given the key contextual issues discussed earlier, the following measures are proposed:

- (i) provision of solid waste collection equipment, including trucks and loaders;
- (ii) improved management of final disposal sites;
- (iii) removal of debris, solid waste, sand and sludge from rivers, streams and lagoons;
- (iv) demarcation of coastal zone into 3 categories (dangerous, moderately dangerous, and no longer dangerous) to ensure adequate environmental surveillance;
- (v) ensuring that selected resettlement lands are as far from forests as possible;
- (vi) carry out well planned land reclamation for resettlement through coordination with relevant authorities.

The implementation of these measures should be undertaken in close consultation with the concerned communities and the relevant government authorities, including the Coastal Conservation Department, Geological Survey & Mine Bureau, Central Environmental

⁵ Proposed Rehabilitation and Rebuilding Work to Affected Water and Sanitation Infrastructure due to Tsunami Disaster, prepared by National Water Supply & Drainage Board, January 2005, updated in March 2005.

Authority, Urban Development Authority, Forest Department, Irrigation Department, Department of Wildlife Conservation, Divisional Secretary, etc.

44. In order to improve the environment in the longer term in the affected areas, the following actions are proposed:

- (i) improvement of existing storm water drainage systems;
- (ii) desalination and rehabilitation of affected arable lands;
- (iii) adoption of adequate solid waste management systems in the resettlement areas,
- (iv) construction of sanitary landfills with septic disposal systems;
- (v) provision of sewerage systems where cost effective;
- (vi) regulation of sand extraction from rivers, streams and beaches to avoid over-extraction;
- (vii) implementation of environmental awareness campaigns;
- (viii) regulation of fisheries activities in designated beach areas.

45. **Loss Compensation.** The impact of lost documents in the affected areas could be alleviated if insurance companies could issue insurance details to their clients. Also the government should consider increasing the maximum concessionary housing loan to affected families, as some had larger houses. The assessment tax records could serve as a basis for identifying such families. All new construction must be insured, as a means of risk transfer in the event of a future calamity. On the other hand, with regards to uninsured business losses, a clear policy needs to be formulated as to how or if they will be addressed. For the future, fishers or entrepreneurs must also be encouraged to insure their assets, possibly offering concessionary premium rates as an incentive. People should be encouraged to join the Fisheries Insurance Scheme, the Agrarian Insurance Scheme, and pension schemes, to protect themselves against future vulnerability.

46. **Governance Capacity Needs.** In view of the tsunami recovery needs, the capacity of UDA and NHDA local staff needs to be strengthened. UDA should be given clear guidelines to consult with communities on planning. Consultations can be done through GNs, community meetings and meetings with civil society representatives. Contacts between the GNs and the communities (including both men and women, and vulnerable groups such as the very poor, widows and disabled) should be regularised and reinforced. The GN's role in channelling grievances and suggestions from the communities to the DS and relevant authorities should be emphasised, while coordination between authorities and NGOs should be strengthened through regular meetings and exchanges of information. NGOs should be compelled to inform relevant government authorities about accomplished and planned activities, and to participate in coordination mechanisms.

47. INGOs are already working to strengthen the capacity of local NGOs and CBOs. However, there are some zones where few local organisations operate, thus making it difficult to attract INGOs also. The development of local organisations with a good community base should be encouraged and INGOs should be encouraged to make long-term commitments to build their capacity. Special efforts should be made to encourage the participation of vulnerable groups (women, widows, poor, disabled, local minorities) in local NGO activities. Cross-ethnic cooperation and organisation should be encouraged through joint projects, training or meetings.

E. OBSERVATIONS / RECOMMENDATIONS

48. An effective information exchange mechanism should be established between the government, local councils and the communities so that government recovery policies,

strategies and programmes are fully understood, and feedback from the population can be channelled to the relevant government body without undue delay. In particular, a detailed, realistic timeframe for recovery programme implementation should be disseminated. This should include the schedule for the provision of transitional shelters and permanent houses. Continued restrictions on the disclosure of information and delayed construction of shelters and houses may result in a chaotic situation in the district.

49. Sufficient consultation with the affected people and their subsequent participation in project implementation should be ensured to ensure the recovery plan meets their real needs and is sensitive to inherent social tensions. This will help ensure fair and transparent implementation and the ultimate sustainability of the recovery. Although training people to participate in post-tsunami construction may require some extra time, it will benefit those who have lost their livelihoods.

50. An adequate monitoring mechanism needs to be established to reduce the risk of discrimination and mismanagement. It is recommended that a district committee composed of representatives of all stakeholders including the central and local governments, civil society (including all ethnic groups), women, etc. be established to monitor project implementation. This will also encourage greater transparency and accountability and, even more importantly, the empowerment of local people. Similar committees could be also be constituted at the Divisional level.

51. Existing methods and management arrangements should be used for implementation of physical works, including procurement, in the coming 12 months, as these works are of a fairly simple nature consisting of the repair and restoration of damaged facilities, which do not require sophisticated technologies and techniques. Most government sector departments have a reasonable level of capacity to implement the programmes. This will minimize the cost and delays for the initial stage of project implementation.

52. Although land has already been identified, the purchase of the required land must be negotiated by the government as a matter of urgency. The central government needs to allocate sufficient funds for this purpose. Paddy and marshlands identified for resettlement purposes will need land filling, which will result in increased costs and time.

53. A quick start to implementation is critical, given the intolerable living conditions under which the displaced people have been residing for months. Provision of temporary or transitional housing and livelihood support to the displaced population is urgent.

54. For the programmes to be implemented in the next two years, a mechanism that will allow the local government and the community to assume greater project implementation responsibilities should be devised, given the complexities in the district. This will require comprehensive capacity building and training for local government personnel and public awareness campaigning before the programme is implemented. This will admittedly result in increased cost and time for implementation.

55. The capacity of local construction contractors and consultants appears limited. The number of local contractors registered with the government is about 2,500 and their annual turnover in recent years is around \$300 million in Sri Lanka. Only 11 engineering consulting firms and about 50 individuals are registered and their total turnover is about \$10 million. The national recovery programmes far exceed the existing capacity of local contractors and consultants. A detailed assessment of the overall capacity of the country should be conducted to prepare for the huge amount of construction works to come shortly, followed by an urgent plan to expand capacity.