



# The Tsunami: Impact, Responses, and Issues<sup>14</sup>

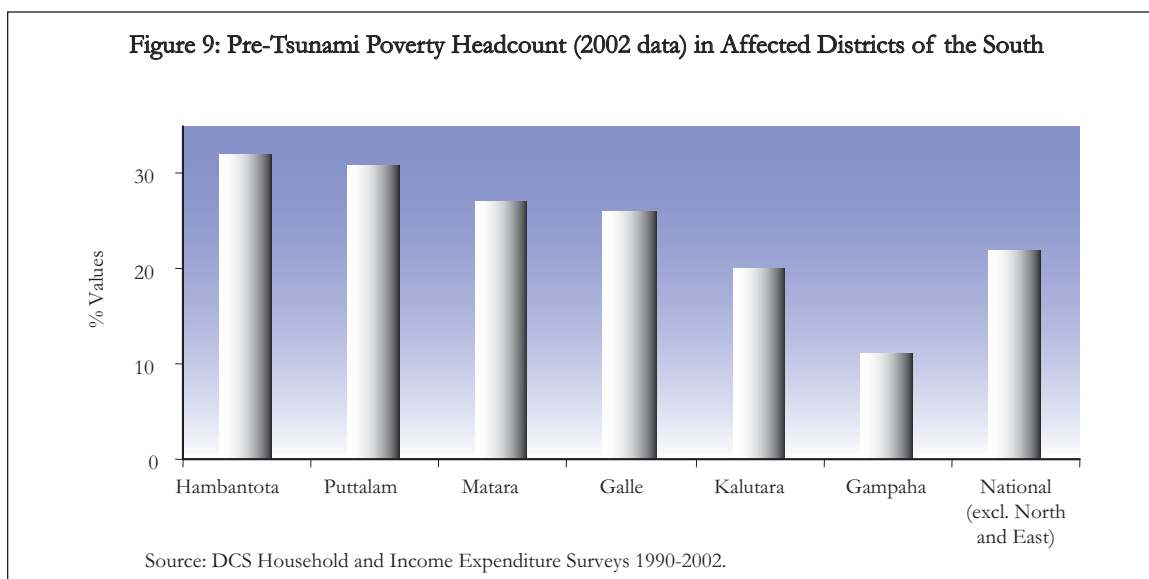
## Introduction

25. The tsunami that hit Sri Lanka on December 26, 2004 caused the worst devastation from a natural disaster in the country's history. While the human and asset losses from the tsunami were extensive, the impact on output and GDP will be limited because the sectors affected only represent a small part of national production. The international community has come to Sri Lanka's aid with unprecedented levels of financial assistance, particularly from private donors. While substantial financial resources have been committed, implementation will be a major challenge. Capacity constraints will limit the speed in which assistance can be delivered. Better and more durable coordinating mechanisms will need to be developed to ensure that aid is effectively channeled to the affected areas. Furthermore, aid flows need to be managed in a way that is consistent with overall macroeconomic stability.

## A. Social Impact

26. The tsunami struck a relatively thin but long (1,000 km) stretch of Sri Lanka's coastline from Jaffna in the north, the entirety of the eastern and southern coasts, and part of the west coast. The worst affected districts were Ampara, Batticaloa and Trincomalee in the East, Galle, Hambantota and Matara in the South, Jaffna, Mullaitivu and Kilinochchi in the North, and the Western district of Kalutara.

27. Sri Lanka has been hard-hit in terms of loss of life, infrastructure, and economic assets. Official estimates are that more than 31,000 people in Sri Lanka were killed and approximately 6,300 are missing. Displaced person estimates stand at 443,000, while the affected population is estimated at 1 million, out of a total population of approximately



14. This section draws on the preliminary findings of the first and second phase of the Joint Needs Assessment conducted by the ADB, JBIC and World Bank, given that the GOSL's Needs Assessment has not yet been released.

19 million people (5 percent).<sup>15</sup> Around 100,000 people are still living in relief camps while the rest of the displaced have moved in with friends or relatives. The number of damaged houses is estimated at more than 110,000, of which more than 70,000 have been completely destroyed.

28. The tsunami affected a broad range of income and ethnic groups. More women and children died as many men were away from their homes at the time of impact. Before the tsunami, poverty in the worst affected districts was above the national average, and the catastrophe has likely increased their vulnerability. Among the affected districts in the South for which poverty estimates are available, poverty headcounts for the Galle, Hambantota and Matara districts are much higher than the national average (excluding the North and East for which estimates are not available). These three districts are also among the worst affected in the South in terms of job losses, accounting for about 60 percent of job losses in this region. For the affected districts in the North and East, other economic and social indicators suggest that the poverty rates would have likely been higher than the national average as well, due to the social and economic deprivations brought about by a long history of conflict. This situation would be exacerbated by the fact that two of these districts (Ampara and Batticaloa) are among the worst affected in the country.

**Table 3: Preliminary Estimates of Losses and Financing Needs (\$ Millions)**

Sector	Losses		Financing Needs		
	Asset Loss	Output Loss***	Short Term	Medium Term	Total Needs
Housing	306-341	-	50	387-437	437-487
Roads	60	-	25	175	200
Water and Sanitation	42	-	64	53	117
Railways	15	-	40	90	130
Education	26	-	13	32	45
Health	60	-	17	67	84
Agriculture*	3	-	2	2	4
Fisheries*	97	200	69	49	118
Tourism*	250	130	130	-	130
Power	10	-	27	40-50	67-77
Environment	10	-	6	12	18
Social Welfare**	-	-	30	-	30
Excluded Items	90		30	120	150
<b>Total (\$ Millions, rounded)</b>	<b>970-1,000</b>	<b>330</b>	<b>500</b>	<b>1,000-1,100</b>	<b>1,500-1,600</b>
<b>Percent of GDP</b>	<b>4.4-4.6</b>	<b>1.5</b>			<b>7.0-7.3</b>

\* Includes estimates from **livelihoods damage** assessment of fishermen, small farmers, and small businesses in tourism totaling \$140 million.

\*\* Targeted assistance to vulnerable groups.

\*\*\* Refers to 2005 and 2006.

Source: ADB, JBIC, World Bank (2005)

15. Department of Census and Statistics Census of Tsunami Affected Areas January 25, 2005.

## B. Economic Impact

29. **Asset Losses.** Overall direct asset damage is estimated at around US\$1 billion (4.5 percent of GDP). Destruction of private assets in the affected districts is substantial, with losses estimated at around US\$700 million. This figure includes losses in fishing (US\$100 million), tourism (US\$250 million), and housing (around US\$300-350 million). In terms of the damages sustained by the private sector, preliminary estimates report around 110,000 houses have been partly or fully damaged, over 19,000 private fishing vessels sustained damages, and about a quarter of hotels were affected (58 of the total 242 registered hotels have been fully or partly damaged). In the public sector, about 97 healthcare institutions, and 190 schools, universities and vocational training institutes were damaged.

30. **GDP and output.** The impact of the tsunami on the nation's output and GDP is not as considerable as the extent of asset and human losses. Output losses resulting from the damage of assets and the disruption in economic activity in the affected sectors are estimated at US\$330 million during 2005 and 2006 (around 1.5 percent of GDP). In terms of employment, an estimated 200,000 people (or about 3 percent of the labor force) might have lost their jobs, including 100,000 in fisheries, 27,000 in tourism and tourism-related activities, and the rest in other informal sector activities.

31. The tsunami is expected to slow down GDP growth in 2005 by up to 1 percentage point from an original government estimate of 6 percent. The relatively limited impact is due to the fact that the most affected sectors of the economy - fishing, hotels and restaurants - together contribute only 3 percent to GDP. Other sectors that will also be negatively affected (but to a much lesser extent) include telecommunications and transport. The construction sector, on the other hand, is likely to partly mitigate losses in output and is expected to grow from an average of 5.5 percent in the recent past to 8 to 10 percent in the next three years.

**Table 4: Selected Economic Indicators**

	Actual 2003	Estimate 2004	Pre-Tsunami 2005	Post-Tsunami 2005
Real GDP Growth (%)	6.0	5.4	6.0	5.0
Nominal GDP (Bn. Rs.)	1,760	2,029	2,354	2,374
Fish production (tons)	284,960	300,000	300,000	200,000
Tourist arrivals	500,642	565,000	600,000	425,000
Construction sector growth (%)	5.5	6.6	6.0	9.0
Average Inflation Rate (%)	6.3	7.6	10.0-11.0	12.0
Monetary Growth	15.3	19.6	15.0	15.0

Source: Central Bank of Sri Lanka and staff estimates

32. **Inflationary pressures.** The tsunami is likely to push prices up further in 2005 due to supply shortages of certain food items in the immediate aftermath of the disaster (e.g., fish and seafood). In addition, increased demand for construction materials (sand, cement) and high price of steel will add to inflation. Wages may also go up reflecting labor shortages. In order to contain the inflationary impact of these factors and of further oil price increases, money supply growth will need to be brought down to 15 by the end of the year as currently programmed by the Central Bank. The average rate of inflation, as measured by the Colombo Consumer Price Index (CCPI), is projected to average 12 percent for 2005 compared to the pre-tsunami estimate of 10-11 percent.

33. **Balance of payments.** Rebuilding activities and rising oil prices will lead to a substantial increase in merchandise imports in 2005. Since merchandise exports are expected to grow at pre-tsunami levels, the trade deficit will widen accordingly. Increased private transfers will finance part of the trade deficit, but tourism receipts will decline

**Table 5: Selected Balance of Payments Indicators (\$ million), 2003-2005**

	2003	Estimate 2004	Pre-Tsunami 2005	Post-Tsunami 2005
Exports	5,133	5,757	6,305	6,354
Imports	6,673	8,000	8,824	9,725
Current account balance	-76	-648	-824	-1,575
Capital account:				
Direct investment	201	227	261	295
Private long term	-33	18	90	63
Government long term	554	439	470	348
Disbursements	913	771	873	751
Amortization	359	331	403	403
Financing gap	-	-	-	710
Overall balance	502	-205	97	101
C/A balance (% GDP)	-0.4	-3.3	-3.8	-6.9
Gross official reserves	2,147	1,825	1,948	2,133
In months of imports	2.8	2.2	2.2	2.3
Oil price (\$ per barrel)	28.9	37.7	40.5	48.0

Source: Central Bank of Sri Lanka and staff estimates.

reflecting a drop in tourist arrivals (in the order of 175,000 relative to original 2005 projection of 600,000). The financing gap relative to the pre-tsunami scenario is estimated at US\$710 million in 2005,<sup>16</sup> which is expected to be met through new concessional loans, grants, and a temporary debt moratorium. The receipt of large foreign inflows is expected to help mitigate the impact of the tsunami disaster on the external sector.

34. **Fiscal impact.** According to the Ministry of Finance, the impact of the tsunami on revenues is expected to be marginal (0.3 percent of GDP). Revenues from value added tax (VAT) and customs duty from increased imports in 2005 are expected to compensate for most of the revenue shortfalls from tourism and fisheries. Incremental tsunami-related expenditures are estimated at Rs. 50 billion (over 2.2 percent of GDP) to be financed through extraordinary external assistance, including debt moratorium. Of this amount, Rs. 10 billion will be additional recurrent cost and the rest will go to capital expenditures. This will result in the widening of the fiscal deficit from the budgeted 7.6 percent of GDP to 9.6 percent of GDP in 2005.<sup>17</sup> However, additional measures will be needed to achieve the pre-tsunami fiscal targets. The revenue and interest expenditure of the original budget were somewhat optimistic and may result in a gap equivalent to 1.2 percent of GDP. In addition, the budget was based on declining international oil prices, while oil prices have actually increased over 2004 levels. Therefore, the fiscal framework would need to be revised in light of these developments.

16. The gap includes the impact of the hike in oil prices.

17. This assumes the government's intention to utilize the savings from the debt moratorium to lower the net domestic financing of the deficit. However, since the agreement with the Paris Club is that "proceeds of the debt moratorium would be used for tsunami relief", net domestic financing is unlikely to be reduced based on the moratorium.

**Table 6: Post-Tsunami Central Government Fiscal Operations (As a Percentage of GDP)**

	Estimate 2004	Budget 2005	Post-Tsunami 2005*
Total expenditures and net lending	23.7	24.8	26.5
Current expenditures	19.2	18.5	18.5
Subsidies and transfers	4.9	4.0	4.5
Civil service wages and salaries	5.4	5.6	6.2
Interest payments	6.0	5.6	5.2
Capital expenditures and net lending	4.3	6.4	8.0
Total revenues	15.4	17.2	16.9
Tax	13.9	15.5	15.2
Non-tax	1.5	1.7	1.7
Current account balance	-3.9	-1.3	-1.6
Budget deficit (w/o grants)	-8.2	-7.6	-9.6
External financing (w/grants)	1.8	2.5	5.7
Domestic financing	5.8	4.6	3.6
Public debt	105.5	-	-

\* Assumes debt moratorium.

Source: Ministry of Finance estimates.

## C. Financing Requirements and Availability

35. The overall incremental financing needs for tsunami reconstruction are estimated to be around US\$1.5 to 1.6 billion. This is equivalent to around 7 percent of GDP or 1.5 times the island-wide capital budget.<sup>18</sup> It excludes the US\$200-300 million that the GOSL estimates that it has already spent as well as further relief expenditures. The recovery needs run parallel to the level of damage sustained by each sector, but are generally higher given that the reconstruction strategy will not be based only on the replacement value of damaged assets but also on the required infrastructure which will often involve upgrades to specifically agreed standards. The majority of resources are required for housing, transportation infrastructure, and livelihood restoration for fishermen, small farmers, and small and micro enterprises. In terms of geographical allocation, the North and the East together will represent about 60 percent of total financing needs.

36. In response to the unprecedented destruction caused by the tsunami, the international community has mobilized equally unprecedented sums of financial resources to assist in the humanitarian and reconstruction effort. It is estimated that over US\$ 2 billion has been committed, excluding debt relief, of which about one half consist of private donations. Although, the levels of commitments are substantial, there remains some uncertainty regarding the timing and magnitude of actual assistance. The unusually large size of private donations, which are typically channeled for humanitarian relief, means that a large part of these funds will available for reconstruction.

18. See ADB, JBIC and World Bank (2005).

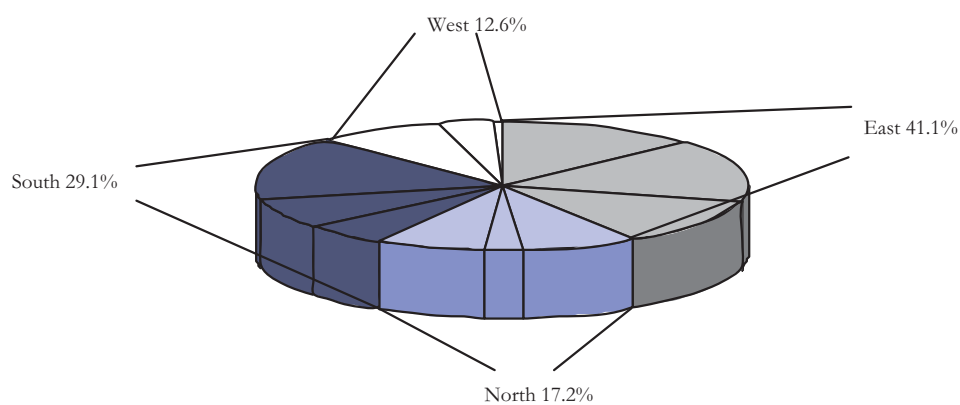
**Table 7: Donor Assistance for Tsunami Recovery (Mn US\$)**

Donor Countries & Agencies	Total commitment	Additional expected	Debt relief 2005	Total
<b>Bilateral Donors</b>	<b>784</b>	<b>199</b>	<b>339</b>	<b>1,322</b>
France	109		9	118
Germany	81		36	117
India	22	30	5	57
Italy	11	149	10	170
Japan	180		209	389
USA	62		40	102
<b>Multilateral Agencies</b>	<b>646</b>	<b>57</b>	<b>0</b>	<b>703</b>
ADB	150			150
World Bank	150			150
UN agencies	69	2		71
EU	75	55		130
<b>NGOs/Private Sector</b>	<b>720</b>			<b>720</b>
<b>Total</b>	<b>2,150</b>	<b>256</b>	<b>339</b>	<b>2,745</b>

Note: Excludes IMF.

Source: External Resources Department, Ministry of Finance as of April 27, 2005.

**Figure 10: SRI LANKA: Tsunami Financing Needs by Province (Sectors include health, education, housing, power, water & sanitation, fisheries, tourism, roads and railways)**



Source: ADB, JBIC, and World Bank Joint Tsunami Needs Assessment 2005.

## D. Implementation Issues

37. Ultimately, the speed and effectiveness of the reconstruction effort hinges on the establishment of adequate implementation mechanisms. The task will be challenging given the government's weak implementation capacity at the central and local levels; the large financial flows that need to be channeled to the affected areas; and the large number of entities involved in reconstruction activities which include around 30 bilateral and multilateral donor agencies, and about 200 local and international NGOs and private donors.

38. In order to oversee and facilitate the overall reconstruction effort the GOSL has appointed the Task Force for Rebuilding the Nation (TAFREN) as a 3-5 year national secretariat responsible for setting priorities, policies and guidelines. At the district level, Disaster Management Authorities have been appointed to coordinate local relief and reconstruction efforts.

39. **Guiding Principles.** It has been recognized among GOSL and a number of stakeholders, including development partners, that the reconstruction strategy should build on a set of guiding principles, drawing from international experience in previous disasters, and bearing in mind the special political circumstances of Sri Lanka. Such guiding principles, to be considered for adoption by all key stakeholders, include:

- Allocation of resources by identified needs and local priorities, supporting the ceasefire and peace
- Subsidiarity to the lowest level of government
- Consultations with affected communities
- Transparency and communication
- Reduce future vulnerabilities
- Analysis of interventions on peace, gender, environment, resettlement, and human rights
- Coordination
- Role of debt relief

40. The second phase of the GOSL's needs assessment, which will focus on implementation issues, will address potential stumbling blocks to speedy reconstruction, including: (i) the 100 and 200 meter buffer zone; (ii) decentralization arrangements; and; (iii) coordination of official and private funds.

41. **The 100 and 200 meter buffer zone.** The Government has adopted a "no development" 100 meter buffer zone policy for the districts of Kilinochchi, Mannar, Puttlam, Gampaha, Colombo, Kalutara, Galle, Matata and Hambantota; and a 200 meter zone for the districts of Jaffna, Mullaitivu, Trincomalee, Batticaloa and Ampara. The policy prohibits any new construction of buildings (permanent or temporary), reconstruction of completely or partially damaged buildings, and additions and alterations to existing undamaged buildings within the buffer zone. An exception has been made for partially damaged buildings belonging to the hospitality industry and if the partial damage is below 40 percent of the replacement cost of the building.

42. The proposed policy would result in over 60 percent of the damaged housing units (about 70,000) in the coastal belt requiring relocation outside the buffer zone. Since the coastal area is densely populated, particularly in the South, identifying suitable land for relocation in close proximity to the sea has caused delays in starting housing reconstruction. In Jaffna and Ampara, the narrow width of these districts may require reallocation at a considerable distance from the coast which may have adverse social consequences. Some lands identified will be very expensive to develop since no infrastructure and services are available. Furthermore, the social and environmental impacts of massive relocation programs have yet to be addressed by GOSL.

43. While there is wide consensus that a buffer zone may be necessary to reduce potential coastal risks, there is no scientific and consultative basis for the proposed zones. In 1997, the Coast Conservation Department (CCD) developed a Coastal Zone Management Plan through a consultative process, taking into account multiple coastal risks and proposed setbacks depending on local conditions. The setbacks proposed by the CCD range from 25 meters to 125 meters depending on the risks. This plan was approved by the Cabinet of Ministers in 1997 and is GOSL policy, but implementation has been weak. An approach for dealing with risk issues linked to the tsunami and avoiding



unwarranted disruption of people's lives could be to implement the Coastal Zone Management Plan, while specifying better construction standards for reconstruction within the coastal zone.

44. **Decentralization arrangements.** The Government's weak implementation capacity, particularly at the local level, will be substantially over-stretched by additional emergency and reconstruction activities. Early feedback on implementation issues arising from visits to the affected districts, including those reported by the Second Phase of the Needs Assessment carried jointly with TAFREN and several donor organizations and civil society representatives, suggest there is an urgent need for (i) clear national policy direction from the top; (ii) systematic coordination of all efforts affecting the district; (iii) a sound, uniform, and consolidated information base of needs; (iv) an effective dialogue and feedback mechanism with affected communities; (v) adequate recurrent budget allocation to the district to implement programs; and (vi) decentralizing implementation as far as possible.

45. Coordination between the national and district levels need to improve, including a better allocation of responsibilities between the various levels of Government. For example, rebuilding of schools and hospitals can be devolved to the Provincial Councils (PCs), the repair of minor roads and provision of water and sanitary facilities in camps to Pradheshia Sabhas so the District Secretaries can concentrate on housing and water and sanitation plans for relocating families, and selecting beneficiaries for livelihood programs. The central government-with the assistance of TAFREN-should focus on setting clear national policies, standards and guidelines for adoption by implementing entities, including NGOs. These are consistent with the devolution of powers to the Provincial Councils and local authorities under the Thirteenth Amendment to the Constitution. National policies, standards, and guidelines need to be actively communicated to the relevant parties. It is reported however that local authorities themselves are often unclear about the national policies concerning key issues such as the housing allowance for destroyed and partially destroyed units, the eligibility criteria for cash payments to affected persons, etc.

46. The shortage of managerial and technical skills at the district level could be addressed more systematically. A stock taking of available skills and needs should precede any capacity building program. Once the skills shortage is established, critical staff could be redeployed from relevant government departments, such as the PCs where staff seem to be underutilized. Finally, remaining staff and skill shortages can then be filled by fresh recruitment and suitable capacity building programs.

47. An effective information exchange strategy is needed that both informs and also gets feedback from the public in general and the affected people in particular about the different initiatives being carried out by government and the various development partners. This strategy should include regular briefing of communities on progress in recovery plans as well as consultations on ways to improve their implementation.

48. **Coordination of official and private funds.** The effective coordination of official and private funds for reconstruction will be challenging particularly given the amount of private donations. Some progress is being made in establishing basic coordinating mechanisms for information sharing and implementation. First, international donor agencies and NGOs have established customized websites aimed at tracking data on commitments and disbursements broken down by sector and district. The intention is that these data be updated on a regular basis by each donor agency. TAFREN would be responsible for consolidating this information and making it available in the government's website. Second, representatives of TAFREN, the international donor agencies, the NGOs and other private sector organizations hold bi-weekly coordination meetings to exchange information on reconstruction plans and to raise issues for follow-up by the relevant parties.

49. To improve coordination among development partners and Government, sector Working Groups have been established. On the donor side, partners have been identified to take a coordinating responsibility for individual sectors. Coordinating donors in each sector would be expected to establish working contacts with TAFREN and key line Ministry counterparts in that sector, and from time to time bring together those interested in particular sectors. The coordinating donor would keep other partners informed about developments and status through this Working Group. Similarly, coordinating NGOs, domestic and international, would be expected to perform a similar function on behalf of their colleagues. This will be important as many NGOs and private foundations are currently operating in an uncoordinated manner in providing livelihood support and housing resulting in inappropriate targeting of beneficiaries.



**Table 8: Coordination Responsibilities by Partner and by Sector**

Sector	Coordinating Donor(s)
Capacity Building/Governance	UNDP/DFID
Disaster Response	UNDP
Economic (macro) impact	IMF
Education	UNICEF
Environment/GIS	Netherlands
Fisheries	FAO/Norway
Health	WHO/JICA
Housing	World Bank
Livelihoods (cash and cash-for-work)	ILO/World Bank
Microfinance/SMEs	Germany/ADB
Power	ADB/JBIC
Protection/Psycho-Social	UNICEF/USAID/UNFPA
Railways	India (to be requested)
Roads and Ports	ADB
Tourism	USAID
Water and Sanitation	JBIC