

## The Indian Ocean Tsunami: three months on?

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### 1. One of the worst disasters in modern times:

- The geographical scale of the disaster was unprecedented, the loss of life immense and the level of physical damage very significant.
- One of the three most severe earthquakes recorded in the last 100 years (9.2RS)
- The cyclone and storm surge that hit the coast of Bangladesh in 1970 killed at least 300,000 people.. As that disaster showed, many of those killed are poor, and living in places with weak record systems: so we will never know the full extent of the loss of life.
- The financial costs are dwarfed by the Kobe earthquake, the Turkish earthquake and the most severe Caribbean/US hurricanes in 2004

### 2. There was no early warning system. Most of the loss of life apart from Aceh and possibly the Andaman and Nicobar Islands might have been avoided.

#### Why?

- It comes down to an assessment of risks. The governments rejected an EWS.
- Governments of developing countries and donors do not like public sector activities which involve recurrent spending.
- They have now agreed to fund an EWS which will cost about US\$20 million (£10m) and about \$2 million (£1.2m) a year to operate. India is going ahead with an EWS but will it be linked into effective local warning and evacuation plans?

### 3. In effect, there have been multiple but simultaneous disasters, each with its own local effects ranging from catastrophic loss of life and destruction in Aceh, but relatively small economic impact (oil industry), to little loss of life, but severe economic disruption in the Maldives.

### 4. Not just a humanitarian crisis, but severe economic shock for some of the affected countries, and especially the poorest affected communities.

We now understand better that natural disasters on this scale have less visible, but critically important, economy-wide (macro-economic) effects and impacts on livelihoods. This is because of the impact of damage to productive sectors (fishing, tourism) which generate jobs and provide livelihoods, tax revenue and foreign exchange, but also because government expenditure has to be diverted from other uses.

### 5. ILO estimated 1 million lost livelihoods and OCHA that more than 1 million were displaced, although numbers are falling.

6. **The macro-economic effects of natural disasters tend to be relatively short-lived.**

In some cases, natural disasters have had a positive effect, because of increased spending on the rehabilitation of infrastructure and commercial premises, as is anticipated in Thailand. The effects on public finances may be worse than the economic impacts (Sri Lanka). Some will lose and others will gain (construction contractors and labour).

7. **In the longer term, those most seriously affected will be:**

- ◆ Poor coastal communities especially *fishing communities* where families will have lost their breadwinners, homes, boats and equipment, and face debts for boats and equipment lost, also those on the margins of the tourist economy (Sri Lanka, parts of Tamil Nadu).
- ◆ Smaller, remoter economies especially
  - Aceh - remote, poor and with severe governance problems because of the struggle for greater local autonomy and the wider near chaotic economic situation in Indonesia;
  - Andaman and Nicobar Islands (which we know least about); and
  - The Maldives because of its smallness and overwhelming dependence on disaster-affected tourism and the sea (economy and government finances have been very severely hit in short term)

8. **Tourism is recovering quickly** because:

- tourist operators and tourists are largely insured for loss, and
- the bigger companies for disruption to business.
- multi-national tourism has the internal funding and can raise finance for rapid reconstruction; and
- demand is reviving because a 1 in 1000 year event will be quickly forgotten.

9. **The greatest challenge will be in ensuring that the poor, especially those in fishing, on the margins of the tourist economy and in remoter areas are helped to recover.** Only 4% of losses were insured and virtually none of the poor or their loans.

10. **The immediate relief needs in the Indian Ocean region have been large and complex, and there is a long term need for rehabilitation and reconstruction in the areas affected. But the response by governments and the public has been unprecedented too:**

- As in India and Sri Lanka;
- As in Europe with official aid, private response (Disasters Emergency Committee), provision of military personnel and equipment;
- New donors such as Singapore and China and South Korea;
- Offering debt deferral, which quickly benefits the public finances. Offers can be refused, as by India and Thailand, or accepted, as by Indonesia, Sri Lanka, or IMF Standby (Maldives).

11. **The adequacy of the response?**

The estimated need for rehabilitation and reconstruction in the four relatively worst affected countries is around US\$ 7.7 billion and the costs of projects will rise.

- The estimated damage was around US\$ 4.7 billion.
- The commitments so far to reconstruction are around US\$ 3.5 billion.

So is there a gap? Well the estimates of R&R include not just replacement, but improvements to infrastructure and services that include both protective measures and also, as in Aceh and Sri Lanka, the costs of simultaneously making good the damage and neglect from war. Should the international community provide all that additional aid?

- Will it be additional or at the expense of aid elsewhere?
- Will it be at the expense of other aid projects in the same countries (a change of priorities)?
- Are these the most deserving countries?
- We still don't know the full extent of the international response. The US administration proposed to Congress US\$1 bn (extra 930mn).
- What will happen if all the aid is not forthcoming?

**12. There are some important lessons for the future. The international community must:**

- invest much more in globally monitoring and understanding the natural hazards that can cause disasters;
- help developing countries that underinvest to provide warning systems <sup>[2]</sup> ;
- invest in protecting lives and livelihoods (Coastal embankments and mangroves break the force of storm surges and tsunamis, zoning of housing and business).
- The poor, who are most at risk and most vulnerable to the effects of disasters, need insurance and not just physical protection

**13. Greater transparency on the part of the international community (see Table)**

Because of media focus and public concern and the development of global communications and technology (e.g. the web)

- For example, the IMF's assessment of the 1992-93 drought in Sub-Saharan Africa was restricted to member governments. This time they have published their assessment;
- ADB's Matrix for monitoring response;
- Governments of affected countries and civil society organisations also need to be transparent

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**Indian Ocean Tsunami Fact Sheet:**

Some facts about the countries:

Sri Lanka: population 20m; GNI per capita \$930;

Thailand: population 62m; GNI per capita \$2190;

Indonesia: population 212m; GNI per capita \$710;

Maldives: population 300k; GNI per capita \$2350;

Tamil Nadu: population 60m; GNI per capita (India) \$540;

Somalia: population 9m; GNI per capita - not available but probably around \$100

Country	Fatalities, Losses, and costs				Growth GDP 2005	[all in US\$ million]					
	Fatalities	Economic and Financial Costs		Total		Rehabilitation & Reconstruction Costs		Total	Total	R&R /	Aid
		Damage	Losses			STR	MTR	Total	Total	PIA 18- Mar	Damage Committe
Indonesia	230,000	2920	1531	4451	-0.2	na	na	4500	4722	162	67
Sri Lanka	31,000	1000	330	1330	-1.3	500	1100	1600	1420	142	86
India (excl. A&N)	11500	575	448	1023	n.s.	400	813	1213	1212	211	79
Maldives	108	298	172	470	-5.5	120	286	406	406	136	18
Total (4 countries)	272,608	4793	2481	7274	n.d.	n.a	n.a	7719	7760	162	251

Notes: Fatalities include missing persons  
 Damage: physical assets  
 Losses direct/indirect negative impacts, including effect  
 GDP in 2005 attributable to the tsunami  
 Growth/decline according to IMF  
 Rehabilitation and reconstruction costs are from the preliminary/provisional impact assessments (PIA) by the ADB and World Bank and those presented by ADB at the 18March Meeting.  
 Aid commitments were those tabled at the 18 March meeting and have subsequently revised upwards by c. \$ 1billion  
 STR: short term reconstruction (upto 1 year) MTR: medium term reconstruction (upto 3 years)  
 R&R /Damage is ratio of the estimated costs of R & R and the physical damage caused by the tsunami.  
 Aid committed to R & R, as of 18 February 2005.

Compiled by Edward Clay for the debate at St James Piccadilly, 23 March 2005 from sources in the public domain

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<sup>[2]</sup> Warning systems work: The numbers killed by the cyclone in Bangladesh –300,000 plus in 1970 dropped to 120,000 plus in 1991 and since then fatalities caused by more recent storms have been few. The Mont Pelé eruption killed everyone (22,000) in St Pierre the capital of Martinique except a convict in the goal, but the Soufrière Hills eruption going on since 1995 on Montserrat has killed only a hand full who had been warned to evacuate