

THE SIGUR CENTER ASIA PAPERS

THE 2004 INDIAN OCEAN
TSUNAMI:
ONE YEAR REPORT

DECEMBER 2005

Prepared by:

**Ambassador Karl F. Inderfurth
The Elliott School of International Affairs
The George Washington University
ambkfi@gwu.edu**

**David Fabrycky
The Elliott School of International Affairs
The George Washington University
fabrycky@gwu.edu**

**Dr. Stephen Cohen
Senior Fellow, Foreign Policy Studies
The Brookings Institution
scohen@brookings.edu**

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The Sigur Center for Asian Studies
1957 E Street, N.W., Suite 503
Washington, D.C. 20052
Tel.: 202-994-5886 Fax: 202-994-6096
<http://www.gwu.edu/~sigur/>

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INTRODUCTION AND EXECUTIVE SUMMARY

On December 26, 2004, a magnitude 9.15 earthquake with an epicenter off the coast of Indonesia caused a massive tsunami affecting 12 Indian Ocean countries. Over 225,000 people were killed and 1.7 million were displaced as giant waves destroyed entire communities in coastal regions. The international response was immediate and extensive, as governments, militaries, the UN and multilateral agencies, and hundreds of non-governmental organizations (NGOs) mobilized. A successful international humanitarian response averted a “second tsunami” of additional deaths through the timely provision of food, drinking water, temporary shelters, and health services.

An estimated \$13.6 billion has been raised internationally in the past year, with some 92 countries having provided assistance, and the response to the tsunami has emerged as a positive exemplar of global disaster response. Unlike the responses to many past natural disasters, when international attention and commitment would wane after an initial burst of activity, governments are keeping their tsunami-related pledges. NGOs have received billions, and survivors continue to be relatively well cared for.

A year after the disaster, however, the tsunami recovery is in a crucial phase as the expectations of survivors and local communities are outpacing the ability of the governments and donors to start reconstruction projects. Today, the tsunami-battered region is transitioning from relief to recovery. Reconstruction will take several years but signs of progress are already apparent. In Indonesia, for example, where 150,000 students lost their educational facilities, almost all children returned to school within two months of the disaster. Most are meeting in tents or temporary schools, but a plan for rebuilding over 350 schools is underway. Tens of thousands of unemployed have been put back to work through cash-for-work programs and the expanding construction sector. These are temporary fixes, however, and a long-term solution depends on restoring the devastated fishing, agriculture, and small business sectors and diversifying the local economies. Tourism is an important industry in many of the affected areas and is recovering well after several hard months immediately following the tsunami. Food supplies are adequate to meet current needs. Health and sanitation remain good, and the reconstruction of medical infrastructure is progressing. The largest short-term challenge—and perhaps biggest frustration for both the displaced and donors—is providing housing. Living conditions in tent camps and temporary shelters have deteriorated over the year, and while increased donor coordination and attention has recently accelerated the pace of residential construction, the number of people in permanent or adequate temporary houses remains low.

Except for the Maldives, most national economies were relatively unaffected by the disaster. Enough money has been raised to cover most countries' medium-term reconstruction costs, if it is well spent. This important caveat is being addressed in an unprecedented fashion, as the international community has kept a sustained focus on the transparency and accountability of the year's recovery process. Unique systems have been developed to track tsunami-related spending and to match donors with recipients. Enough resources are available—the pressing need, however, is for better coordination of the hundreds of aid groups active in the region. Some relief officials have in fact complained that some organizations have so much money at their disposal that they have been able to act independent of national relief organs and other NGOs, thwarting attempts to integrate operations and resulting in the duplication of relief efforts.

National governments and donors are increasingly planning to “build back better”—establishing safer communities with more diverse economies in order to diminish the impact of future disasters and alleviate poverty. The tsunami served as a stark reminder to governments around the world about the urgent need for natural disaster mitigation and effective warning systems. The UN has tried in the past year to organize the efforts of Indian Ocean countries to build a tsunami warning system. Coordination challenges and capacity limitations have hampered progress, but the UN hopes to have a system in place by late 2006. More broadly, the UN is working toward the establishment of an all-hazards global early warning system by 2007, a goal highlighted at the UN World Summit in September 2005.

As the recent hurricanes in the southeastern United States again demonstrated, overdevelopment of coastal regions increases vulnerability to disasters. Man-made damage to the Indian Ocean countries' coastal resources—such as clearing of mangrove forests—magnified the tsunami's impact. Reconstruction must take environmental considerations into account. For example, the demand for lumber in Aceh has prompted illegal logging that could increase the region's vulnerability to future disasters.

The tsunami altered not only the region's physical landscape, but its political one as well. On August 15, the Indonesian government and the separatist Free Aceh Movement signed a Memorandum of Understanding to end their 29-year conflict. Implementation of the agreement is proceeding on schedule and it stands a good chance of success. Both sides identified the tsunami as “the turning point” in prompting them to end the conflict.

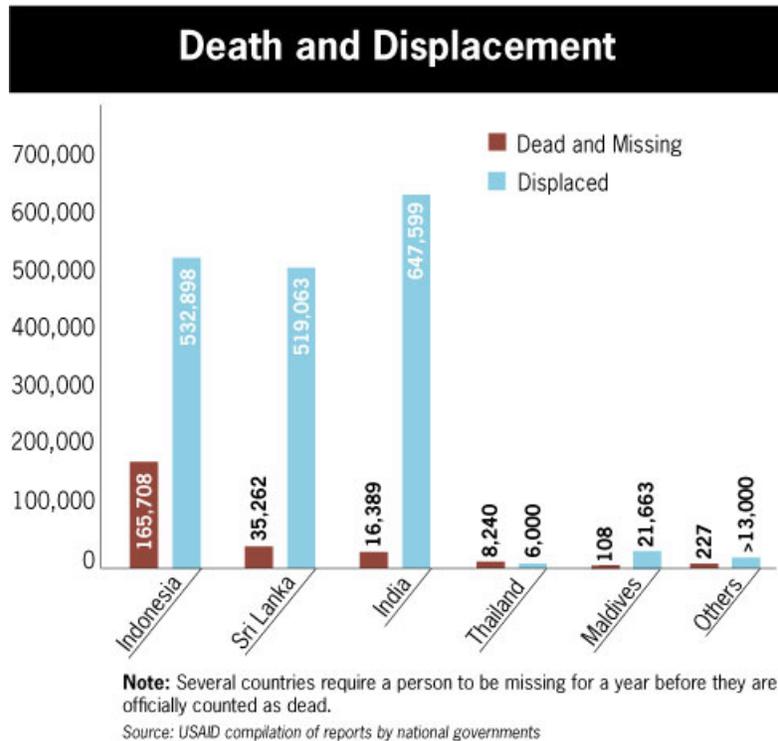
The same spirit of cooperation has not flourished in Sri Lanka, where a peace process initiated in 2002 between the government and the separatist Liberation Tigers of Tamil Eelam

(LTTE) remains stalled. Political violence has continued with more than 200 killings this year alone, and it is suspected that the LTTE was involved in the assassination of Sri Lanka's Foreign Minister Lakshman Kadirgamar on August 12. The two sides agreed in June to a joint mechanism for distribution of relief and reconstruction aid, but the Sri Lankan Supreme Court blocked the agreement. The deal will probably remain shelved following the victory of Prime Minister Mahinda Rajapakse in the November 17 presidential elections, as Rajapakse campaigned against power-sharing arrangements with the LTTE.

Despite setbacks in Sri Lanka and region wide coordination and implementation challenges, there is much positive to report one year after the disaster. Indeed, if the level of commitment demonstrated by the international community can be maintained, the December 2004 tsunami will be remembered as a model for effective global disaster response, not just a disaster. When compared with other major crises this year in Pakistan and elsewhere, the tsunami highlights how uneven and unpredictable the international response can be to natural disasters. Still, the relief phase demonstrates that the international community can respond quickly and effectively to major catastrophes if it chooses to do so. The following sections highlight some key aspects of recovery and reconstruction and provide graphical indicators of the region's progress since the tsunami struck almost one year ago.

DEATH AND DISPLACEMENT ACROSS AN ENTIRE REGION

The magnitude 9.15 earthquake was the fourth largest since 1900 and caused the most deadly tsunami in recorded history. A dozen Indian Ocean countries suffered death and destruction, and citizens of several dozen other countries were killed. The poor felt the devastating impact of the disaster acutely, while many more women were killed than men. Many villages were reported as having a ratio of female to male fatalities of more than 3:1. Of the 1.7 million displaced, hundreds of thousands continue to shelter with family or friends while tens of thousands remain in tent camps and temporary shelters.

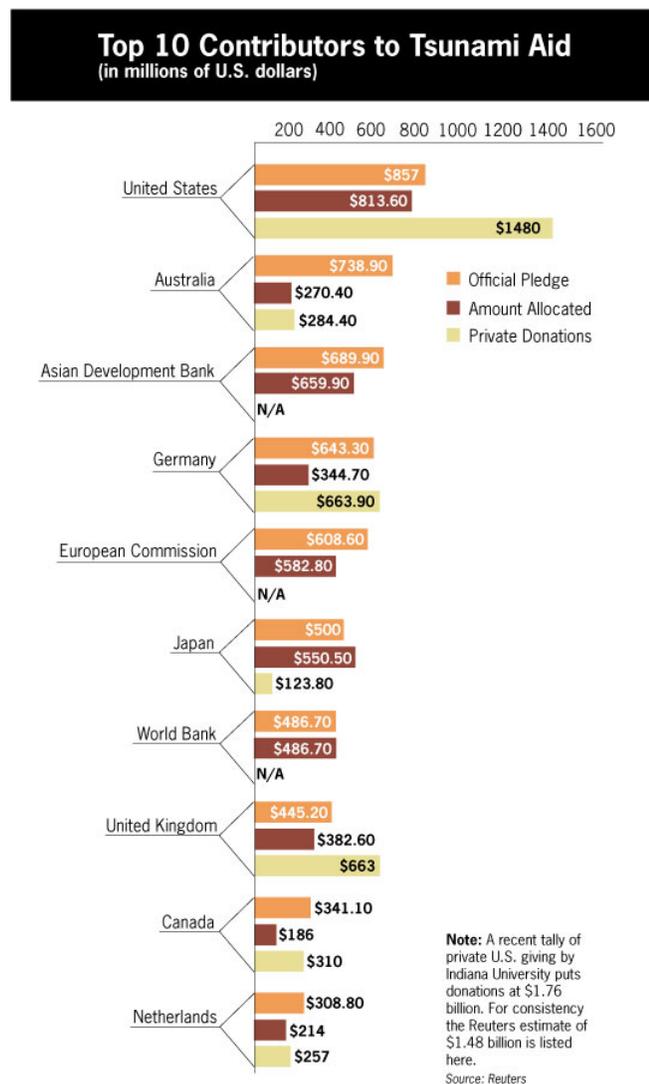
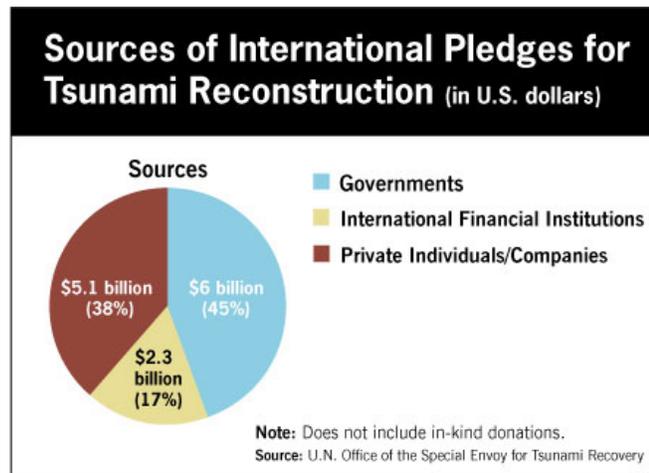


THE INTERNATIONAL RESPONSE: AN UNPRECEDENTED HUMANITARIAN RELIEF EFFORT

The scale of the tsunami disaster prompted an unprecedented outpouring of sympathy and support from governments and people around the world. An estimated \$13.6 billion has been raised (not including in-kind donations), enough to cover most medium-term reconstruction needs if the donations are spent wisely. Donors have

honored most of their pledges by allocating money to the governments of affected countries or committing funds to specific projects. 85% of the UN's initial flash appeal of \$1.28 billion for humanitarian relief operations has been met. Some 92 countries have provided tsunami relief or reconstruction assistance. Other external funds have come from several multilateral institutions—including UN agencies the World Bank—and private contributions channeled through NGOs.

The challenge now is not raising more money, but ensuring the large amount already allocated is disbursed quickly and effectively giving due consideration to long-term planning. Indeed, transparency and accountability have been persistent themes of the international community's response to



the tsunami. The high degree of scrutiny and sense of global attention has prompted the affected countries to undertake serious efforts to account for their reconstruction spending. For example, several of the countries have launched online databases that allow the public to track expenditures and progress on specific reconstruction projects. The UN has also established an online tracking system, unique to the tsunami disaster, listing contributions and expenditures for its Flash Appeal by agency and country. Links to these sites can be found at the end of this report.

Estimated Reconstruction Needs, Funds Pledged from External Sources, and Funds Secured (U.S.\$)				
Country	Estimated Needs (U.S.\$)	Funds Pledged	Funds Secured	Outstanding Pledges
Indonesia	\$5—5.5 billion	\$6.5 billion	\$4.46 billion	\$2.04 billion
Sri Lanka	\$2.15 billion	\$2.95 billion	\$2.24 billion	\$710 million
India	\$2.10 billion	\$800 million	\$800 million	0
Maldives	\$375 million	\$262 million	\$253 million	\$9 million
TOTAL	\$9.625—10.125 billion	\$10.5 billion	\$7.75 billion	\$2.76 billion

Note: The governments of affected countries will also be contributing money to the recovery process—India has earmarked some \$1.4 billion, and Indonesia is expected to contribute \$2 billion.
Source: U.N. Office of the Special Envoy for Tsunami Recovery, from national governments

**MAINTAINING GLOBAL MOMENTUM:
UN SPECIAL ENVOY BILL CLINTON**

In February 2005, UN Secretary General Kofi Annan appointed former U.S. President Bill Clinton as the United Nations Special Envoy for Tsunami Recovery. As Special Envoy, Clinton has traveled several times to the region and has worked to keep the international community committed to the recovery effort. With a two-year mandate, Clinton will try to support coordination efforts among governments, multilateral institutions, and private groups, promote transparency and accountability measures, and encourage recovery efforts that help affected communities “build back better.”

Clinton’s appointment followed his role earlier in 2005, in conjunction with former President George H. W. Bush, in helping to raise U.S. private donations for tsunami relief and reconstruction. In July 2005, Eric Schwartz was appointed as Deputy Special Envoy, following Erskine Bowles who served from February-July.

The Special Envoy’s website can be found at: www.tsunamispecialenvoy.org.

OTHER DISASTERS: INTERNATIONAL RESPONSES OUTPACED

Since 1992, the UN’s consolidated appeals—which gauge the needs of UN agencies and many NGOs for humanitarian operations—have only received enough funds for two-thirds of the stated requirements. By contrast, the tsunami was “the most generous and immediately funded relief effort ever,”

according to Jan Egeland, the UN’s Under-Secretary General for Humanitarian Affairs and Emergency Relief Coordinator. As of early December 84% of the financial needs for the UN’s tsunami appeal had been met, while the UN’s 25 other consolidated appeals for 2005 were only funded at an average of 52%. The response to the tsunami appeal was also unusually quick—within two weeks of the flash appeal’s launch, 53% of the requested amount had been funded by

Comparison of Select U.N. Consolidated Humanitarian Appeals in 2005		
Disaster	Requirements Covered (%)	Unmet Requirements (U.S. \$)
Indian Ocean Earthquake	84 %	\$203,720,699
Niger	64 %	\$29,023,191
Guatemala	57 %	\$13,575,870
Chad	54 %	\$103,712,662
Sudan	51 %	\$933,056,022
Burundi	49 %	\$62,295,988
South Asia Earthquake	29 %	\$389,793,379
Total of all 25 consolidated appeals of 2005	59 %	\$2,382,860,125
Total of all 2005 consolidated appeals excluding Tsunami	52 %	\$2,179,139,426

Source: U.N. Financial Tracking Service, as of Nov. 30, 2005

POST-TSUNAMI DISASTERS TESTING WORLD’S RELIEF CAPABILITIES

The October 8 earthquake that struck South Asia (primarily impacting the Kashmir region) killed more than 73,000 Pakistanis and 1,500 Indians, and left hundreds of thousands in need of aid. Relief agencies are struggling to get much-needed tents, food, medicine, and other supplies to survivors. The Pakistani army is dominating the relief effort and without significantly more substantial foreign assistance to humanitarian operations, many more survivors could die during the upcoming harsh winter. A World Bank assessment says Pakistan will need \$5.2 billion to implement a recovery plan. \$5.8 billion was pledged at a donors’ conference on November 19 in Islamabad, although \$3.9 billion of this is in the form of soft loans and most of the pledges will go to financing long-term reconstruction, not immediate humanitarian needs. On December 15, UN Secretary General Kofi Annan appointed former U.S. president George H. W. Bush UN Special Envoy for Pakistan earthquake relief.

After giving generously for tsunami aid, America was hit with disasters of its own throughout the 2005 hurricane season, punctuated by the catastrophe in New Orleans and the Gulf Coast following Hurricane Katrina in late August. Dozens of countries provided or offered relief aid in the immediate aftermath of the hurricane, although reconstruction will be handled primarily by the U.S. The scale of the disaster seems to have distracted U.S. donors from foreign needs and overstretched domestic capacities. In late October, the American Red Cross was forced to borrow \$340 million to cover costs, the first time in the organization’s 124-year history that it took out a loan for disaster relief.

Sources: The Washington Post, Reuters

commitments or paid contributions.¹

The tsunami appears to have drawn more attention than other recent natural disasters and a more generous global response for several reasons, including its scope and unusual form (i.e., giant tsunamis are much less common than deadly earthquakes), the intensive press coverage, and the large numbers of foreigners affected (over 2,000 tourists were killed). The timing of the disaster was also significant, occurring as it did during the holiday season, as was the ease with which the affected region could be reached by sea, such as U.S. naval assets in the area.

The UN wants to establish a Global Emergency Fund by early 2006. The fund would pool money in advance of disasters, so that aid could be used immediately without having to raise support for each specific disaster. The fund is intended in part to respond to the problem of governments and the public having trouble focusing on more than one disaster at a time, and to provide a ready source of aid for disasters that do not draw international attention.

THE U.S. RESPONSE: BIG IMPACT RECONSTRUCTION PROJECTS UNDERWAY

The U.S. government will spend about \$857 million on tsunami-related aid. In addition to reimbursing the \$225.6 million in expenses incurred by the Defense Department during the provision of humanitarian relief, a supplemental appropriations bill from mid-2005 earmarked \$631 million for tsunami aid in a “Recovery and Reconstruction Fund.” As of early November, the U.S. had committed about \$576 million of this money to specific humanitarian aid and reconstruction projects. These resources will be distributed across five main program areas: continuing relief services; rebuilding houses and communities; reconstructing major infrastructure; providing technical and capacity building assistance for national, provincial, and local governments dealing with the disaster; and supporting the multinational plan to build an Indian Ocean Tsunami Warning System. The largest U.S.-funded aid program will be a \$245 million road project in Aceh to reconstruct the main highway along the western coast.

The U.S. military and 14 other foreign militaries were key contributors to relief efforts. At the height of operations, over 15,000 U.S. service members, 25 ships, and 94 aircraft were involved in providing assistance, including the aircraft carrier USS Abraham Lincoln.² The U.S. military ceased tsunami relief operations on February 14, having treated 2,238 patients and delivered over 24 million pounds of supplies.³ A U.S. Navy hospital ship provided humanitarian assistance off the coast of Nias for 25 days following the March 28 earthquake.

GENEROUS RESPONSE GIVES U.S. IMAGE A MUCH-NEEDED BOOST

America’s highly visible contributions to tsunami relief operations helped improve public opinion toward the United States across the region. In Indonesia—the world’s most populous Muslim country—one survey found that 65% of Indonesians now hold “more favorable” opinions of the United States because of its response to the tsunami.

The public diplomacy implications of U.S. humanitarian relief have been cited frequently since the tsunami by lawmakers and diplomats. In mid-November, Ambassador Karen Hughes, the State Department’s Under-Secretary for Public Diplomacy and Public Affairs, led a delegation of government officials and private-sector leaders to observe humanitarian operations in Pakistan following the October 8 earthquake there. In early December, Hughes led a group to Central America to encourage private sector assistance following a series of natural disasters in the region.

PRIVATE VS. PUBLIC GIVING: PERSONAL DONATION OFTEN OUTSTRIPS GOVERNMENT

U.S. private charitable giving for tsunami relief had reached at least \$1.76 billion as of October, according to the Center on Philanthropy at Indiana University.⁴ This included, as of mid-year, \$234.5 million in value of in-kind donations.⁵ There were at least 155 U.S. organizations involved in tsunami relief efforts. In the first few months after the disaster, U.S. NGOs raised at least \$1.48 billion in private funds and in-kind gifts, and spent \$254.2 million in the first three months of humanitarian operations.⁶

This was the largest recorded U.S. corporate aid effort ever for an international disaster. As of August 29, the U.S. Chamber of Commerce had received reports from almost 600 companies indicating that corporate aid for the tsunami had reached \$565,752,948. 148 companies had made cash or in-kind contributions of over \$1 million each.⁷ The bulk of these contributions were made in the first few weeks after the disaster and often played a crucial role in helping relief organizations fill gaps in the critical humanitarian relief stage. The tsunami also prompted many U.S. businesses to think anew about corporate stewardship and share with each other best practices for providing humanitarian assistance overseas. The experience has also prompted closer ties between U.S. government and the business community in coordinating an American response to disasters. As a result, President Bush appointed five private-sector leaders to undertake a nationwide effort to raise support for relief and reconstruction in Pakistan after the October 8 earthquake.

These donations and activities are a prominent example of how private giving from American individuals and businesses consistently exceeds the contributions of the government to foreign aid. One recent estimate put annual private U.S. giving at \$35 billion, or about three and one-half times the U.S. government's annual spending on overseas development assistance.⁸

ECONOMIC IMPACT AND RECOVERY: NATIONAL ECONOMIES REBOUND, COASTS HURTING

Almost one year after the tsunami, the national economies of most affected countries are showing good signs of growth. In fact, save for the Maldives, the national-level economic impact of the tsunami was minimal for most countries. The traditional economic activities of the hard-hit coastal communities—fishing, small-scale agriculture, and trade—remain depressed, although reconstruction work has provided a temporary boom in sectors like construction and transport. Most private assets lost in the tsunami were uninsured, and with credit often unavailable to small businesses, the private sector has found it hard to recover. Natural disasters often affect developing countries' economies severely, as losses are usually uninsured, and the costs of reconstruction can overwhelm government capacities. The international insurance company Munich Re reported that of 700 natural disasters in 2004, insured losses accounted for only \$15.8 billion of \$65 billion in damages.

Rebuilding public infrastructure and services is not enough to help the economies of affected areas recover over the medium-term. Much more needs to be done to spur investment and extend credit to the private sector. Creating employment, controlling inflation, and rebuilding the financial sector will be the three main macroeconomic challenges in the months ahead, according to the World Bank.⁹ Unlike many previous disasters, enough money has been committed or transferred to cover most medium-term reconstruction costs. Moreover, both Indonesia and Sri Lanka have taken

advantage of offers by creditor nations to reschedule debt repayments, allowing them greater flexibility with their national budgets.

Comparison of the Tsunami's Economic Impact				
Country	Total Damage and Losses (U.S.\$M)	Losses as a Percentage of GDP	Pre-Disaster Forecasted 2005 Growth Rate	Tsunami Impact on 2005 GDP Growth
Indonesia	\$4,451	2 %	5.4 %	- 0.2 %
Thailand	\$2,198	1.4 %	6.0 %	- 0.3 %
Sri Lanka	\$1,454	7.6 %	6.0 %	- 0.6 %
India	\$1,224	0.2 %	7.2 %	N/A
Maldives	\$603	83.6 %	7.5 %	-9.2 %

Source: Joint Assessments by World Bank, Asian Development Bank, United Nations, and Japan Bank for International Cooperation; World Bank compilation of data from the Asian Disaster Preparedness Center

Indonesia: While the tsunami left Indonesia's national economy mostly unaffected, it devastated the economy of Aceh province and surrounding areas. Total material damages and losses were estimated at \$4.45 billion, or 97% of Aceh's GDP.¹⁰ The disaster primarily impacted private assets and revenues. 66% of the loss represents damage to assets, while 34% represents lost

income flows to the economy. Despite the devastation, Indonesia's national economy grew 5.9% in the first half of 2005. In sum, the tsunami had a negligible impact on the national economy. In fact, the effects of oil price rises were far more substantial.¹¹

While the national economy is faring well one year after the tsunami, the World Bank projects that Aceh's economy will contract by about 14% in 2005. Aceh is only now really moving out of the relief and into the recovery phase. Reconstruction began to pick up pace in September, following the completion of Indonesia's annual budget process and the allocation of more money for specific projects. An anticipated construction boom will help revitalize the economy, but will also push up provincial inflation—already at 23% compared with the 7.8% national average.¹²

Sri Lanka: Damage was estimated at about \$1 billion, or 4.5% of GDP, with an additional \$330 million lost in income flows. Most of the affected assets were in the private sector, particularly those related to fisheries and tourism. As in Indonesia, the impact on the Sri Lankan national economy was minimal, but the impact on the affected areas is huge. A surge in donor support, however, has helped the Sri Lankan economic recovery and future prospects are bright.

According to the Sri Lankan Treasury Secretary, the Sri Lankan economy will actually expand at the fastest pace in eight years in 2005 and maintain that rate in 2006 as it rebuilds after the tsunami.¹³

India: Four mainland states and the Andaman and Nicobar Islands were affected by the tsunami, and over \$1 billion was lost in assets and incomes. The largest losses were in housing (\$490 million) and fisheries (\$285 million).¹⁴ Given the size of India's economy, the overall national impact was negligible.

Maldives: The Maldives was the country hit hardest economically by the tsunami. At year's end, the small island nation continues to face "severe budget and economic problems," according to the World Bank. Total damages and income losses amounted to over half of the country's GDP. Direct losses amount to about \$298 million, or 8% of the replacement cost of national capital stock.¹⁵ The government is struggling to pay teachers and other civil servants in the wake of the tsunami and rising oil prices, and is estimated to have a \$95 million budget shortfall for 2005 and 2006. The World Bank, Asian Development Bank (ADB), and IMF are working on a plan to help cover half this shortfall, as it is thought the other half can come from domestic sources. The economy will likely contract this year, compared to pre-tsunami growth rates of around 8%.¹⁶ The macroeconomic impact will largely depend on how fast the country's tourism industry

recovers, as it is the country's main engine of economic growth. The disaster had a particularly severe psychological impact as the Maldives had graduated from the UN's category of "Least Developed Country" four days before the tsunami. As President Gayoom said, "nearly two decades of development were washed away."¹⁷

Thailand: Although Thailand suffered the second highest amount of estimated damage and losses, it only amounted to a small percentage of GDP and the national economy will be relatively unaffected.

RECONSTRUCTION MANAGEMENT, PROJECT COORDINATION AND IMPLEMENTATION

The vast scope of the tsunami reconstruction projects and billions in external aid available underscores the need for effective management as the affected countries rebuild. All governments are receiving significant professional assistance from outside experts and both Indonesia and Sri Lanka have created dedicated agencies to manage the recovery. In Indonesia, the Reconstruction and Rehabilitation Agency (BRR) was established as an independent agency on April 30 and by mid-September had reviewed and approved about 450 project concept notes with a value of \$2.085 billion.¹⁸ In Sri Lanka, a joint public-private Task Force for Rebuilding the Nation (TAFREN) is responsible for reconstruction and implementing an action plan released in early 2005.

Thailand, India, and the Maldives have designated existing agencies to coordinate reconstruction work. The Indian government established a Core Group on Reconstruction, Management, and Monitoring within the Planning Commission to oversee implementation of a comprehensive recovery plan. Specific projects will be implemented by state governments and some central government ministries. The Maldives has adopted a unique approach through its “Adopt-an-Island” effort that pairs up foreign countries and NGOs with specific project needs across the archipelago. The government released a National Recovery and Reconstruction Plan in March and the Ministry of National Planning and National Development is heading the effort.

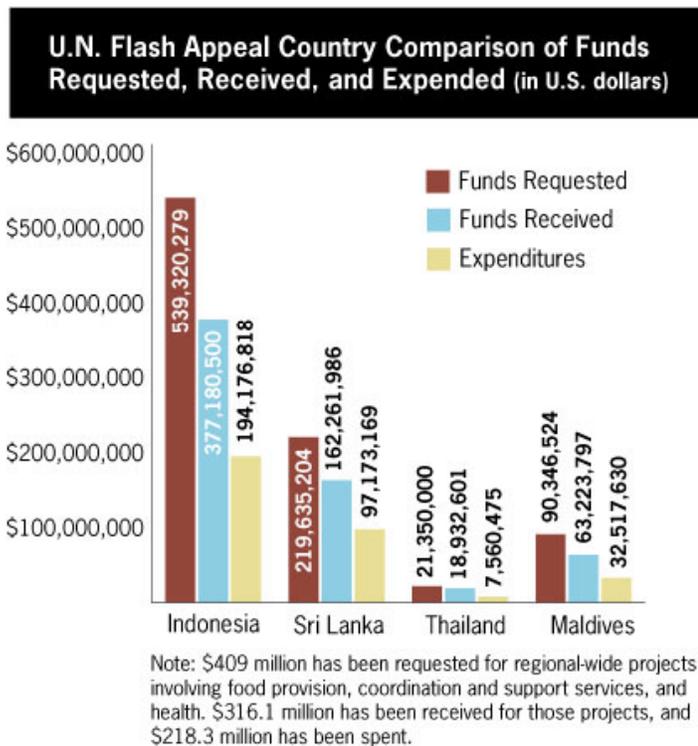
In all of these countries, the large sums of money available for reconstruction, the myriad aid groups, and extent of devastation pose a massive coordination challenge. Moreover, establishing common evaluation mechanisms is a pressing need, so governments and donors can target aid and projects where they are needed most. The UN Office of Special Envoy Clinton and the Global Consortium on Tsunami Recovery are working to establish a common tracking system to enable more rigorous and effective analysis of the region’s needs.

While major infrastructure projects like roads continue to be the work of large government donors, NGOs have been heavily involved in social service sectors such as health, water, and housing. There are some 124 international NGOs and 430 local/national NGOs working in Indonesia alone. The large number of organizations has made the recovery process unwieldy at times. Coordination and standardization issues will continue to challenge national governments that are dependent on a wide variety of NGOs to help in the recovery process. On the positive side, NGOs can often move money and implement programs faster than governments or multilateral agencies—for example, they have financed 38% of current

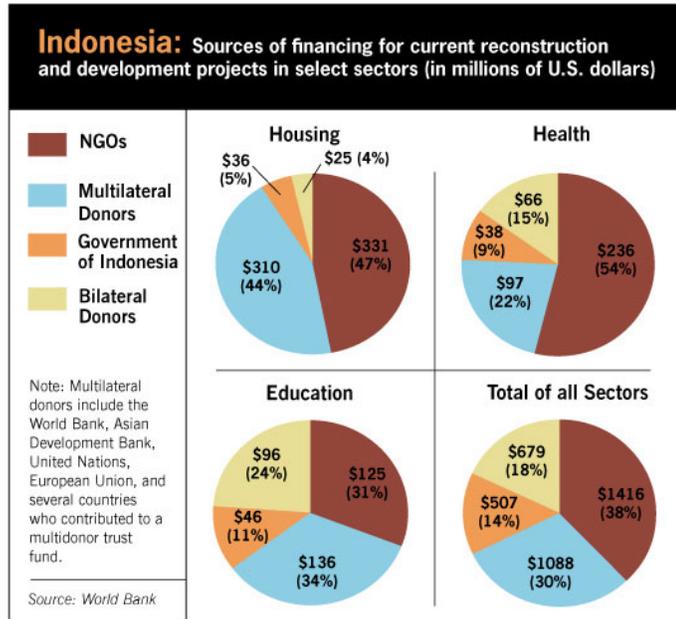
reconstruction projects in Indonesia. At the same time, NGO-financed activities are often harder to coordinate and standardize, and the more ad-hoc nature of these projects can complicate plans for an integrated recovery. Ironically, one problem at this point may be that some organizations have too much money. Some relief officials complained earlier in the year that NGOs flush with money were able to work alone and “fly the flag” (not an uncommon practice in disaster responses), ultimately hindering the integration of relief operations and leading to duplication.

The coordination task is complicated by the wide variety of donor-supported programs—from multi-million dollar infrastructure projects to small projects amounting to a few hundred dollars each. External assistance must go through a cumbersome process before it actually helps those in need on the ground. Foreign governments or international organizations pledge money that must then be committed to specific projects, disbursed to the government or partner organization, and finally spent or distributed at the local level. In the year since the tsunami, donor resources have been effectively mobilized and the challenge now is to ensure resources are available in the right place at the right time. Additionally, resource distribution must be coordinated so that projects are implemented coherently and in the proper sequence.

The graphic at right displays the amount of money raised and spent for the UN’s Flash Appeal, which mostly covers immediate humanitarian and relief needs. While these figures exclude the billions more raised for reconstruction, they provide a useful snapshot of the funding and expenditure levels of humanitarian projects by country in the year since the tsunami. Those areas where immediate relief was most important—such as food and health—were well covered. Other sectors that will be important to the region’s long-term recovery, including agriculture and economic recovery, are not as well funded and fewer projects have been implemented.



Indonesia: The Indonesian government, donors, and NGOs each have between \$2.5 and \$3 billion to spend on reconstruction. An estimated US\$ 2.9 billion has been allocated for reconstruction projects and another US\$ 770 million dollars for broader development programs, according to the World Bank.¹⁹ Less than \$500 million has been disbursed, however, with the largest contributions made so far by NGOs.²⁰ Further progress will hinge



on how well the dozens of organizations active in Aceh can coordinate their activities.

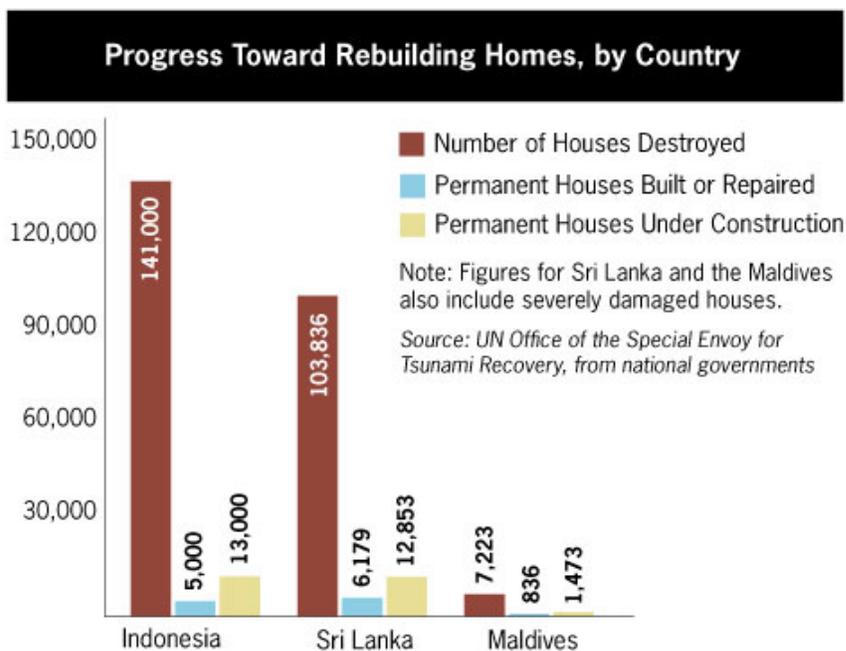
Sri Lanka: According to a special donor assistance database, \$1.042 billion has been committed to reconstruction projects across all sectors as of September, with about \$456 million disbursed. Sri Lanka’s auditor general presented a report this fall that detailed several coordination problems resulting in the slow delivery of aid and implementation of projects. For example, by the end of July, only small amounts had been spent on key sectors: 11.2% of the \$312 million in foreign aid received for housing, and 8.2% of the \$121 million for fisheries.²¹ The auditor also found that in the four months following the disaster, 29% of the approximately 4,000 containers of foreign aid received had not been cleared through customs. Finally, there were several cases of misappropriation, including, for example, a government disbursement of \$723,460 paid out to families who were not affected by the tsunami.

India: After responding with its own resources during the immediate relief phase, India is now accepting external assistance channeled through multilateral agencies such as the World Bank, ADB, and UN. India has earmarked some \$1.4 billion from its own money for reconstruction and will probably receive about \$800 million in external assistance.

Thailand: The government is carrying out most relief and reconstruction work on its own and, as of September, had funded \$1.6 billion in projects. Thailand is accepting some international assistance, and by mid-year UN agencies acting in Thailand had received \$27.6 million for reconstruction work and had spent \$6 million.

HOUSING: NEED FOR TEMPORARY SHELTER GIVEN SLOW PERMANENT RECONSTRUCTION

Providing adequate shelter for the displaced remains one of the largest short-term challenges in the recovery effort, particularly in Indonesia and Sri Lanka. Living conditions in tent camps and temporary shelters deteriorated over the year, and tens of thousands of more durable temporary housing units will be needed to bridge the gap until permanent housing can be built.



Problems with coordination, land-use regulations, and material shortages have hampered the reconstruction of permanent housing and villages. UN Special Envoy Clinton said that the primary frustration he hears from people in the region is the feeling that they are living under unbearable conditions.

In Indonesia the tsunami and March earthquake destroyed an estimated 141,000 houses, and there is a need for 100,000 homes, but as of October only 10,000 permanent houses had been built.²² Of the 452,000 registered displaced in Indonesia, 67,500 are still living in tents, while almost 300,000 are staying with relatives or host families. Donors and NGOs have pledged to rebuild over 100,000 houses, so total housing needs should theoretically be met. A shortage of building materials, however, and a subsequent rise in construction costs may prevent donors from meeting their earlier pledges. \$702 million has been mobilized for housing but this falls short of the at least \$762 million needed to build back in this reconstruction phase.²³

Over 100,000 homes were fully or partially destroyed in Sri Lanka. Aid agencies have built around 55,000 temporary shelters for the displaced, but only a few thousand permanent homes have been completed.²⁴ One hindrance to reconstruction is the continued confusion and controversy over legal resettlement rules. The government of Sri Lanka had originally mandated a 100-200 meter buffer zone for all reconstruction near the coast, but has been making changes

to the regulations to account for local conditions.²⁵ In several countries, the planned movement of some communities away from the shore is hindered by questions of land rights and access.

The national agencies and international donors have recognized that housing is a priority, particularly providing more durable temporary shelters so those still in tents can better weather the rainy season. A 23 September meeting of government, international, and NGO representatives, convened by UN Special Envoy Clinton, agreed to coordinate the delivery of thousands of new and improved transitional shelters²⁶ and some recent progress has been made. While the overall number of houses remains low, housing starts in Indonesia have increased from 1,000 per month in June to 5,000 per month in October.²⁷

EDUCATION: CLASSES BUT NO CLASSROOMS

The tsunami destroyed or damaged hundreds of schools in coastal areas. Relief agencies treated education as part of emergency response, and almost all children returned to school within two months of the disaster. Most are in temporary accommodations, however, and rebuilding destroyed infrastructure will take years in the worst hit areas. Donors have committed to covering most education infrastructure needs, and the remaining challenge is to reconstruct permanent facilities and recruit and train new teachers to replace those killed in the disaster.

Indonesia: Over 2,300 schools were destroyed or damaged, and some 45,000 students and 1,870 teachers were killed in Indonesia.²⁸ About 150,000 students lost their education facilities and were either absorbed into neighboring schools or are attending temporary schooling in tents.²⁹ UNICEF received approval from the Indonesian government on September 9 for a \$90 million project to build or repair at least 350 permanent schools across Aceh and Northern Sumatra. The total project may include 500 schools and will take up to three years to complete.³⁰

Sri Lanka: The tsunami damaged 182 public schools, 4 universities, and 16 vocational or technical training centers in Sri Lanka.³¹ According to TAFREN, \$169 million is needed to rebuild the education sector, and memoranda of understanding have been signed with donors to rebuild all the needed schools. 198 schools currently being used as IDP camps will also be rehabilitated.

Maldives: 37% of the schools require some degree of repair to be functional and six schools were completely destroyed. All schools did, however, start their academic sessions on time.³² According to the government, 17 of 19 school rebuilding projects have been completed.

EMPLOYMENT: TEMPORARY WORK PLUGGING THE GAP BUT LONG-TERM GROWTH NEEDED

There are no precise estimates of the number of jobs lost due to the tsunami, but the International Labor Organization (ILO) initially estimated that one million jobs might have been lost.³³ The fishing, small-scale agriculture, and small business sectors were particularly hard hit across the region. Through cash-for-work programs and the expanding construction sector, tens of thousands have been put back to work, at least temporarily. The challenge now is to build back the capacity for restarting small businesses in those sectors of the economy not involved with reconstruction and clean-up efforts. For example, fishermen need new boats, as thousands were destroyed in the disaster.

Indonesia: 600,000 people, or 25% of Aceh's population, lost their sole source of livelihood, including 130,000 farmers, 300,000 fishermen, and 170,000 small businesses.³⁴ Unemployment in Aceh is estimated to be between 25% and 30%, well above the national average.³⁵ Out of an estimated 7,200 fishing boats lost in the tsunami, 4,400 new boats have been built and delivered with another 1,500 pledged. Many of these may be of low quality, however, and many of the new vessels may become unusable within 12 to 18 months due to "poor craftsmanship and the use of substandard materials."³⁶

Sri Lanka: The government reported that 275,000 workers lost their jobs due to the tsunami.³⁷ As of mid-year, about 40% of those left unemployed by the tsunami are still in need of livelihood recovery assistance, according to the International Labor Organization. 15,300 Sri Lankan fishing boats were destroyed and NGOs have pledged to replace at least 12,900.³⁸

TOURISM: VISITOR-DEPENDENT MALDIVES LEFT OUT OF REGION'S RECOVERY

The tourism sector is vital to the long-term economic recovery of several affected areas, particularly in Thailand, Sri Lanka, and the Maldives. Data from the past few months shows that the industry is recovering well in most areas, with the Maldives a glaring exception. The World Tourism Organization said in October that the tourism market in tsunami-affected countries has proven to be “more resilient than expected.”³⁹ Governments of affected countries have adapted new policies and increased marketing efforts to promote tourism, and a dramatic increase in inter-Asian travel has made up for a sustained drop in Western visitors to the region. Restoring traveler confidence and convincing foreigners that facilities are open and safe remain the key challenges. There are also concerns the recovery process could be uneven. While many of the luxury resorts owned by foreign investors were insured and were repaired quickly; small, uninsured local tourism businesses may struggle to reestablish themselves.

The Maldives: With the tourism sector accounting for one-third of the national economy, the islands were hit the hardest by the disaster in relative economic terms. A senior Tourism Ministry official called the tsunami “the worst disaster we’ve had.” Tourist arrivals fell by 45% from January through August.⁴⁰ For the year as a whole, tourism will probably be down by about a third,⁴¹ and this will severely affect national employment and government revenue. As of August, 69 resorts are operational while 18 remain closed and are undergoing renovations.⁴²

Sri Lanka: After a sharp drop in January and February following the tsunami, tourist arrivals in Sri Lanka were above their 2004 levels from March through August, the last month for which data is available.⁴³ The cumulative tourist arrivals for the first eight months of 2005 represented an 11.7% increase over the same period last year. There are now 203 tourist hotels in operation compared to 217 last year. A significant drop in European visitors was more than offset by a sharp increase in Asian visitors. Surprisingly, North American visitors increased by 91.2%, with the United States recording a 110.7% increase in visitors for the first eight months of 2005 compared to the same period in 2004. The Sri Lankan government has taken a number of steps to revitalize the tourism industry, including increasing marketing, extending loans to small and medium-size enterprises, introducing visa-free entry for several more countries, increasing direct flights with emerging tourist source countries such as India and China, and creating “tourism zones” to concentrate the industry’s redevelopment and avoid ad-hoc rebuilding.⁴⁴

Thailand: The affected resort destinations appear to be holding well. Arrivals nationally were up 2.9% for the first eight months of 2005 compared to 2004.⁴⁵

Indonesia: The hard-hit Aceh province is not a tourism destination so the tsunami did not damage any tourist infrastructure. However, the perceptions of damage to Indonesia—combined with the psychological effect of terrorist attacks in Bali and elsewhere over the past few years—have dampened travel demand for Indonesia. Tourist arrivals are down 4.1% to the end of July 2005 compared with the same period last year. The Indonesian government has taken several moves to try and encourage tourism, including liberalized visa requirements for 14 more countries.

India: The tsunami did not significantly affect India's tourism sector. Nationally, India has experienced a boom in inbound and outbound tourism (i.e., visitors coming to India and Indians going abroad),⁴⁶ and international arrivals increased 16.6% for the first 8 months of 2005.⁴⁷

FOOD SECURITY: CRISIS AVERTED BUT NEEDS REMAIN

The UN World Food Program (WFP) announced on March 24, 2005, that the potential for a post-tsunami food crisis had been averted,⁴⁸ and the UN Food and Agricultural Organization (FAO) has said that food availability in the affected regions is adequate to cover current needs. In January, the WFP launched a six-month \$256 million emergency operation,⁴⁹ and by mid-year had distributed 123,000 tons of food to over 2 million people. As of mid-year, the WFP was still distributing food to a monthly beneficiary group of 763,000 in Aceh and Nias alone.⁵⁰ Despite the efficient provision of emergency food aid, undernourishment remains a problem throughout the region. For example, the FAO estimated in 2004 that 4.1 million of Sri Lanka's 18.8 million people are undernourished. Moreover, a survey in Aceh by the Indonesian government and aid agencies found that 11.6% of displaced children were malnourished as were 11.4% of the region's children non-displaced by the tsunami.⁵¹

HEALTH ISSUES: DISEASE AVERTED, BUT LONG-TERM PSYCHOSOCIAL IMPACT A CONCERN

The widespread devastation caused by the tsunami prompted fears about disease outbreaks in affected areas due to damaged medical infrastructure, loss of service providers, and contaminated water supplies. There were not any serious outbreaks, however, as the rapid national and international response helped meet the affected communities' emergency medical needs. The World Health Organization (WHO) reports that the health situation remains under control, with no outbreaks identified.⁵² International agencies have been successful in providing clean drinking water and have made steady progress in restoring health services. In early May, health officials at an UN-sponsored conference in Thailand concluded that the key lessons learned from the tsunami were the need for a global network of health experts, clear procedures on handling psychological trauma and mass fatalities, and a focus on the special health issues for women, such as pre- and post-natal care.⁵³ Still, post-tsunami health issues have been handled in a well-coordinated manner and are a prominent example of humanitarian aid done well.

The medical infrastructure was severely impacted in many coastal communities, a problem compounded by the deaths of doctors and other health providers. Much progress has been made, however, as NGOs and other humanitarian agencies have placed health needs at the top of their priorities. In Indonesia, reconstruction of health facilities and redeployment of services has been completed in 40% of health centers.⁵⁴ In Sri Lanka, where 72 hospitals were damaged, donors have pledged to cover the total cost of recovery,⁵⁵ and 96 temporary health centers were constructed to replace 97 destroyed in the tsunami.⁵⁶ The greatest health threat remains that of communicable diseases, particularly as the region moves into the rainy season, and people are at risk of diseases such as cholera, malaria, and dengue.

Many of the affected countries' governments have been reviewing and improving their capacities for dealing with mental health problems in the wake of the tsunami. The WHO estimates that up to half of all residents in affected areas will require some psychosocial care. Indeed, dealing with widespread trauma may prove to be one of the biggest health and social challenges. There has been little research on the impact of trauma on children, for example, but studies of the September 11 terrorist attacks indicate that these may be severe, particularly for those close to the disaster. Most assessments indicate that community-based interventions are more useful than professional help, and one priority will have to be training community workers who have relevant language skills. The large numbers of displaced people in camps or temporary shelters, and the widespread loss of employment have compounded these challenges.

ENVIRONMENTAL ISSUES: RETHINKING THE DEVELOPMENT OF COASTAL AREAS

The tsunami severely damaged many coastal communities' ecosystems and hurt economic sectors, such as fishing and farming, that depend on natural resources. Millions of cubic meters of debris accumulated along the coasts, exposing survivors to health hazards. According to the UN, the tsunami created the same amount of waste in Banda Aceh that the city would have normally generated over 20 years. While much of the debris has been cleared, studies have shown an increase in health risks in affected areas.

Poor stewardship of coastal resources prior to the tsunami magnified the disaster's impact. For example, the clearing of coastal areas for development resulted in greater destruction than would have otherwise occurred. Damage was reduced in areas with healthy coral reefs, mangrove forests, and coastal vegetation, according to a study by the UN Environmental Program.⁵⁷ Without careful planning, reconstruction could further damage fragile coastal environments and perpetuate the vulnerability of coastal settlements. For example, illegal logging in Aceh is a growing problem as the estimates of the volume of wood needed for reconstruction are eight times higher than the amount of wood harvested legally each year.⁵⁸ The tsunami also resulted in marked changes to the physical landscape of some areas. Parts of the coast in southern Aceh are now 1.5 meters lower than before, causing inland flooding at every high tide.⁵⁹ In such a situation, building back in the same place will not be advisable without extensive coastal protection, and may not be a good idea at all.

NATURAL DISASTER MITIGATION: TSUNAMI HIGHLIGHTS WORLDWIDE NEED

The tsunami underscored dramatically the need for greater levels of disaster awareness and that preparedness must be better integrated into development programs and national governments' security strategies. A string of natural disasters has made 2005 an unusually destructive year; in addition to the tsunami, a series of strong hurricanes battered Central America and the southern United States, a 7.6-magnitude earthquake struck Pakistan in October, and Africa experienced a host of humanitarian crises. This has continued an upward trend in the incidence of natural disasters the past few years. During 2000-2004, the world experienced 55% more disasters than in 1995-1999, affecting one-third more people.⁶⁰ A 2004 study by the International Federation of the Red Cross and Red Crescent Societies found that annual economic losses from natural disasters had increased in real terms from \$3.9 billion in the 1950s to \$63 billion in the 1990s.⁶¹ The World Bank and U.S. Geological Survey estimated that economic losses could have been reduced by \$280 billion in the 1990s if \$40 billion had been invested in prevention.

UN Emergency Relief Coordinator Jan Egeland said in October that, "there is no country and no authorities on earth that are in our experience taking adequate preparedness measures [to deal with natural disasters]."⁶² Various UN initiatives have been designed to enhance national and local awareness of the need to plan for disasters and take measures to reduce risks. The World Conference on Disaster Reduction, for example, was held in January 2005 in Japan at the direction of the UN General Assembly. Participants from 120 countries adopted a Framework for Action over the next decade that includes developing disaster risk reduction strategies and enhancing early warning capabilities and disaster preparedness measures. Additionally, the UN Educational, Scientific, and Cultural Organization (UNESCO) has tried to organize global efforts to build a worldwide early warning system that would warn against tsunamis and other natural disasters like floods, typhoons, hurricanes, and volcanic eruptions. The organization hopes to have such a system in place by 2007.⁶³ At the September 2005 UN General Assembly World Summit, member countries resolved that in order to achieve sustainable development, they would: "work expeditiously towards the establishment of a worldwide early warning system for all natural hazards with regional nodes, building on existing national and regional capacity such as the newly established Indian Ocean Tsunami Warning and Mitigation System."⁶⁴

The U.S. government is expanding use of its intelligence and surveillance capabilities to assist in post-disaster evaluation and relief operations. For example, the National Geospatial-Intelligence Agency (NGA) charted the coastal effects of the tsunami and devoted dozens of staff

to relief and recovery efforts after hurricanes Katrina and Rita hit the United States in August and September. The NGA also assisted in relief efforts in Guatemala after Hurricane Stan and in Pakistan after the October earthquake.⁶⁵

The tsunami increased the international community's awareness of the need to be ready for massive catastrophes, and several countries are looking for opportunities to work together. For example, on July 18, the U.S. and India agreed to a joint "Disaster Relief Initiative" that will include closer coordination between the two countries' militaries and between USAID and the Indian Ministry of Home Affairs.⁶⁶ Assistance has moved both ways—after Hurricane Katrina, the Indian Air Force airlifted 25 tons of relief supplies to the United States.⁶⁷

One of the key geopolitical outcomes of the tsunami was that it showcased the rise of India as a major power in the region. India extended relief aid to other countries while dealing with the disaster's impact on four of its own states. In mid-November, the South Asia Association for Regional Cooperation (SAARC) members agreed to establish a disaster management center in India to help the region handle natural disasters in a coordinated manner.⁶⁸ The Indian Parliament is also considering legislation to establish a National Disaster Management Authority to strengthen its own government's institutional coordination.⁶⁹ This may also be the right time for India to link its seismographic network to the global system.

The October 8 earthquake that affected both Pakistan and India underscored that, despite political differences, the two sides share a common ecosystem and geological vulnerabilities. The two countries have agreed to open the unofficial border to relief efforts and allow divided families to meet, and there is hope that post-disaster cooperation will provide momentum to a recent improvement in bilateral relations, and possibly lead to cooperation on natural disaster mitigation.

After the tsunami, the Maldives accelerated its mitigation program to consolidate its population on less vulnerable islands. The government's recovery plan emphasizes the incorporation of wider environmental protection zones and the construction of higher areas for evacuation in case of future floods.⁷⁰

TSUNAMI WARNING SYSTEM PLANS UNDERWAY TO AVOID A FUTURE CATASTROPHE

None of the Indian Ocean countries had an effective warning system in place on December 26, so the tsunami hit most affected areas without any advance notice and countless lives were lost as a result. For example, the tsunami took between 90 minutes and two hours to reach Sri Lanka, Thailand, and the east coast of India. The waves did not reach Somalia until seven hours after the earthquake and yet people in these areas still died. In the wake of the tragedy, nations around the world called for the establishment of a warning system for the Indian Ocean and placed renewed emphasis on developing systems along their own coastlines. Existing tsunami warning systems like the one established for Japan in 1968 by UNESCO have proven effective in saving countless lives.

UNESCO's Intergovernmental Oceanographic Commission (IOC) is organizing efforts by Indian Ocean countries to establish an interim region-wide tsunami-warning system by mid to late 2006. Earlier this year, a mechanism was established for Indian Ocean countries to receive tsunami warnings from the Pacific Tsunami Warning Center in Hawai'i and the Japan Meteorological Agency.⁷¹ These distant centers are not, however, always able to accurately assess conditions in the Indian Ocean. They can only detect seismological information and since only a small fraction of earthquakes generate tsunamis, this temporary arrangement is prone to a high rate of false alarms.

Twenty-five of the 27 countries involved have established communications centers to receive interim advisory information and have identified national tsunami coordination loci that will work with each other and the UN in creating a regional network. Needs assessment missions have been completed in 16 countries, and a Master Plan for the regional system will be presented and discussed at the next IOC coordination meeting in Hyderabad, India, on December 12-16, 2005. At an August meeting in Perth, the countries agreed that seven regional centers would be established. The UN's World Meteorological Organization (WMO) is working to upgrade the Global Telecommunications System for 13 of the countries. These upgrades will allow the distribution of tsunami information and warnings that can then be passed along to appropriate authorities and national warning networks.⁷²

An effective interim network will need three components: a technical system to gather seismographic, sea level, and oceanic pressure data; a coordinated international communications network to share and assess the data; and national warning networks capable of alerting populations to potential danger. A complete technical system to detect tsunamis usually

integrates sensors on the ocean floor, buoys, satellites, and ground-level stations. It is unclear how much progress has been made in integrating the needed components. The UN says that so far, six of 23 needed sea-level stations are operational, and as of August it expected to have the rest in place by the end of 2005.

Several countries, including Indonesia, Thailand, and India, have started building their own national alert networks. These individual projects will allow for the rapid transmission of warnings but will only be effective once the technical capacity to monitor ocean levels is developed and deployed. The three countries are each planning to acquire some independent technical capacity to monitor ocean levels, but the systems may take several years to develop. While creating a regional system with complementary national systems may strengthen Indian Ocean countries' overall warning capabilities, the multiplicity of independent systems and regional plans may prove challenging to coordinate.

The UN is optimistic that a regional early warning system will be in place by late 2006. The scientific and funding challenges appear fairly easy to overcome as connecting a regional system and building national capacities will only cost an estimated \$23 million. The UN launched a regional trust fund to finance capacity building for national and regional centers, and Thailand has made an initial \$10 million contribution. The U.S. will be spending \$16.6 million over two years to help Indian Ocean countries develop technical detection capabilities and enhance community awareness about natural disasters.⁷³

SEPARATIST CONFLICT IN ACEH: OUT OF THE TSUNAMI'S TRAGEDY, A WINDOW FOR PEACE

The separatist Free Aceh Movement (GAM) has waged a low-intensity insurgency against the Indonesian government in Aceh province for the past 29 years. The conflict has claimed the lives of some 12,000 people and displaced an estimated 35,000. Before the tsunami, Aceh had been under martial law. On August 15, after several rounds of peace talks in Finland, the government of Indonesia and GAM leaders signed a Memorandum of Understanding to end the conflict. The agreement provides for four stages of implementation by December 31st, as the Indonesian government will withdraw 30,000 troops from the province (leaving 14,000) and the GAM will turn in its weapons. Over 300 monitors from the European Union and the Association of Southeast Asian Nations are monitoring implementation. Previous attempts at peace, including a failed 2002 agreement, have stalled, but the parties have a much different energy and attitude this time. Confrontations have stopped, implementation has proceeded ahead of schedule, and GAM's weapons handovers and Indonesia's drawdown of military reinforcements should be completed by the end of December. Both the government and GAM said that the tsunami was "the turning point" in prompting them to end the conflict.

SRI LANKA: CONFLICT POLITICS CONTINUE TO HAMPER RECONSTRUCTION PLANNING

In Sri Lanka, the Liberation Tigers of Tamil Eelam (LTTE) have fought a separatist war against the government in the north and east of the country for 22 years in a conflict that has claimed over 60,000 lives. A fragile ceasefire has, however, been in place since 2002 and the government and international community had been making plans to rebuild the hard-hit Tamil areas. These conflict-affected regions were also those worst hit by the tsunami. Grassroots coordination helped ensure the provision of immediate relief, but the LTTE's de facto control over portions of the country complicates the government's reconstruction plan and the administration of external aid. The conflict also poses additional challenges for reconstruction: there have been accusations of government discrimination against Tamils in the distribution of aid, and UNICEF has reported on the LTTE's continuing recruitment of child soldiers, including some displaced by the tsunami. Meanwhile, political violence has continued with more than 200 killings this year. The most prominent victim was Sri Lankan Foreign Minister Lakshman Kadirgamar who was assassinated on August 12 in Colombo. Sri Lankan authorities have blamed the LTTE. While responsibility for the killing has yet to be assigned, the LTTE has denied any role.

On June 24, in response to a call by donors to establish a joint mechanism to allow distribution of aid in Tamil areas, the LTTE and President Kumaratunga signed a Memorandum of Understanding to provide for a one-year “Post-Tsunami Operational Management Structure” (also known as the “Tsunami Relief Council”). The deal was blocked by the Supreme Court, however, and will probably not be implemented by the new president, Mahinda Rajapakse, who won the November 17 elections in part by courting Sinhalese nationalists who oppose power-sharing arrangements with the LTTE.

The prospects for long-term reconstruction in Sri Lanka—both for tsunami and conflict-affected areas—will depend on the success of the peace process. “If there is peace in this country, we can perform miracles in the next couple of years, because there are enough resources available,” said Jan Egeland, the United Nations' Emergency Relief Coordinator.⁷⁴ “If there is no peace but war I foresee a long and difficult humanitarian phase where we cannot go into development very effectively.” In addition to \$3 billion promised by donors for tsunami relief, another \$4.5 billion was promised before the tsunami for post-conflict reconstruction should the sides reach a peace agreement.

HUMAN RIGHTS: INCIDENTS OF DISCRIMINATION MAR SOME AREAS' RECOVERY

The tsunami did not lead to any known international migration, but it did create a large number of internally displaced persons in the most affected areas. Experience elsewhere shows that the longer displacement caused by natural disasters lasts, the greater the risk of discrimination and violation of human rights, especially of poor and marginalized groups. Moreover, several human rights groups have drawn attention to discriminatory practices in the distribution of relief aid and planning for reconstruction.⁷⁵ In most cases, pre-existing patterns of discrimination against women and ethnic or religious groups were exacerbated by the tsunami. Reports have indicated that several groups have suffered from inequities in aid distribution, including Dalits (“untouchables”) in India, Tamils and Muslims in Sri Lanka, and Myanmar migrants in Thailand.⁷⁶

Another concern is a lack of community participation in reconstruction planning. While many government and international agencies have tried to incorporate community desires, implementation has been uneven. There have been some reports of property disputes where poor landowners without paperwork have lost their land to business and commercial interests. Indeed, an estimated 70%-90% of survivors in some areas lost their identity documents. Coupled with the loss of identity documents and records and the fact that many survivors never held formal title to their properties, the potential for exploitation and abuse is clear. Most of the national governments have recognized the importance of human rights issues in the recovery process and have special commissions to monitor violations.

KEY RELIEF AND RECONSTRUCTION WEBSITES

UN Office of the Special Envoy for Tsunami Recovery: <http://www.tsunamispecialenvoy.org>

The status of international funding for Flash Appeal projects can be tracked through the UN Financial Tracking Service: <http://ocha.unog.ch/fts/index.aspx?PageID=tsunamiHomePage>

Development assistance databases that track spending on specific projects can be found for:

Indonesia at <http://rand.brr.go.id/RAND/>

Thailand at <http://dadthailand.mfa.go.th/dad/>

Sri Lanka at <http://dad.tafren.gov.lk/>

The Maldives at http://dad.finance.gov.mv/DAD_Maldives/

The World Bank, ADB, United Nations, and Japan Bank for International Cooperation have produced a series of in-depth assessments on the human and economic destruction wrought by the tsunami, and estimates of needed reconstruction costs. Find the reports and other tsunami-related economic information at:

<http://www.worldbank.org/tsunami/>

<http://www.adb.org/tsunami/default.asp>

The UN Office for the Coordination of Humanitarian Affairs (OCHA) runs ReliefWeb, a website serving as an information hub on humanitarian emergencies and natural disasters. The special page on the tsunami has updates and reports from the UN and other international organizations, national governments, NGOs, the media, and academia. To access the special Tsunami portal visit: <http://www.reliefweb.int>

Several U.S. government agencies provide tsunami-related information. The U.S. Agency for International Development (USAID) has a special web portal with the most comprehensive coverage, including reconstruction updates and information on U.S. projects:

http://www.usaid.gov/locations/asia_near_east/tsunami/

Details on the European Union's Response to Tsunami can be found at:

<http://europa.eu.int/comm/world/tsunami/index.htm>

KEY REPORTS

The World Bank: “Rebuilding a Better Aceh and Nias: Stocktaking of the Reconstruction Effort” (October 2005)

<http://siteresources.worldbank.org/INTINDONESIA/Resources/Publication/280016-1106130305439/AcehReport.pdf>

Oxfam International: “2005: Year of Disasters”

<http://www.reliefweb.int/library/documents/2005/oxfam-various-18oct.pdf>

(Surveys the major international disasters of 2005, finds the number of disasters has climbed dramatically over the last decade, and urges more humanitarian aid)

Oxfam International: “Targeting Poor People: Rebuilding Lives After the Tsunami”

http://www.oxfam.org.uk/what_we_do/issues/conflict_disasters/bn_tsunami_6months.htm

(Examines effect of tsunami on poor communities)

Oxfam International: “The Tsunami’s Impact on Women”

http://www.oxfam.org.uk/what_we_do/issues/conflict_disasters/downloads/bn_tsunami_women.pdf

(Research released three months after tsunami shows up to four times as many women as men may have been killed in Indonesia)

The Fritz Institute: “Lessons from the Tsunami”

http://www.fritzinstitute.org/PDFs/Programs/Findings_Sept2605.pdf

(Uses surveys of NGOs and affected families to analyze effectiveness of disaster relief operations)

Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters

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