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**Strengthening emergency relief, rehabilitation,  
reconstruction, recovery and prevention in the aftermath of  
the Indian Ocean tsunami disaster**

**Report of the Secretary-General**

*Summary*

This report has been prepared in response to General Assembly Resolution 60/15 of 2 February 2006 on “Strengthening emergency relief, rehabilitation, reconstruction and prevention in the aftermath of the Indian Ocean tsunami disaster.” The report provides a status update of the recovery process at the 18-month mark and seeks to identify some of the key emerging challenges and lessons learned in efforts to build back better. It examines successes and challenges in tsunami response, focusing on long-term recovery. Specific themes discussed include coordination, models of government recovery institutions, assessments of damages and needs, transparency and accountability, community participation in recovery, economic diversification, risk reduction, human rights, and environmental issues. Each theme includes recommendations from the Secretary-General to both Economic and Social Council and the General Assembly for further discussion.

## **I. Introduction**

1. This report was prepared pursuant to General Assembly Resolution 46/182 of 19 December 1991, which requested the Secretary-General to report to the General Assembly and the Economic and Social Council on the coordination of emergency humanitarian assistance. The report is also submitted pursuant to General Assembly Resolution 60/15 of 2 February 2006 entitled “Strengthening emergency relief, rehabilitation, reconstruction and prevention in the aftermath of the Indian Ocean tsunami disaster,” which requested the Secretary-General to report on its implementation to the General Assembly at its sixty-first session and to the Economic and Social Council at its substantive session in 2006.

## **II. The Tsunami and its Impact**

2. On 26 December 2004, an earthquake off the western coast of northern Sumatra, measuring 9.0 on the Richter scale, triggered an intensely destructive tsunami, which affected 12 countries, taking 186,983 lives. An additional 42,883 are still listed as missing. Hundreds of thousands of people were displaced, and over 3 million were affected, including 1.4 million who lost their sources of livelihood. The tsunami had the greatest impact on rural coastal communities, many of which were already poor,

- vulnerable, and had few livelihood options. The hardest hit countries were India, Indonesia, the Maldives, Sri Lanka, and Thailand. Malaysia, Myanmar, the Seychelles, Somalia, and Tanzania were also affected.
3. The assistance provided by the emergency relief effort—which rapidly reached over two million people—included preventative health measures, temporary shelter, and emergency food assistance. Relief agencies also built temporary schools and health facilities. While the relief effort faced serious challenges, it was regarded as generally successful.
  4. Multi-agency assessment teams originally calculated that approximately \$10 billion would be needed for long-term recovery. This figure has recently been revised to approximately \$11 billion. Official and private pledges for recovery reached just over \$12 billion. Work on long-term reconstruction is ongoing, with permanent schools, highways, harbors, and homes under construction, and livelihood restoration programs and support to communities in social services underway.
  5. Across the affected region, construction of permanent housing is the priority, with challenges raised by the need to build 412,000 homes as well as procure land on which to build. Most of the affected countries face common challenges, which include insecure land tenure, increasing costs of building materials, the need for community consultation in housing construction, and

lack of infrastructure at the new housing sites. Livelihood programs during the early recovery phase have focused on replacing assets, notably in the fisheries sector—but the disaster’s effects on employment can still be felt across the region.

## **India**

6. The tsunami affected more than 1,400 miles of India’s southern coastline. Across some 1,089 villages, the death toll was 12,405, and close to two million people were directly or indirectly affected. Total needs were assessed at \$2.1 billion.
  
7. With a total of 169,753 houses to be built, constructing shelter remains a top priority. An estimated 7,956 houses have been built, and special efforts have been made to develop local capacities for disaster risk reduction. Local masons have been trained in multi-hazard resistant technologies, and homeowners are required to purchase insurance and encouraged to follow disaster resistance guidelines.
  
8. The tsunami damaged and destroyed 360 primary and secondary schools. In addition to reconstructing buildings, the government is seeking to enhance the quality of education. It has introduced Quality Education Packages,

- which propose strategies to improve instruction in 251 schools, benefiting 70,000 children.
9. Livelihood recovery efforts have focused on reestablishing prior economic activities and developing alternate livelihoods. Beneficiaries are receiving vocational training and small enterprise support. Over-fishing was a problem before the tsunami, and post-tsunami measures include improved fisheries management, diversification of economic activities, and access to credit.

## **Indonesia**

10. Located just 100 miles from the earthquake's epicenter, Aceh was severely impacted. Physical destruction was immense, with reconstruction needs estimated at \$4.5 billion. An earthquake on Nias island on March 28, 2005 and an increase in prices of some goods by as much as 40 percent in Aceh, have pushed this figure to \$6.1 billion. More than 130,000 people were killed in both disasters, with as many as 37,000 still listed as missing. The livelihoods of at least 500,000 were affected by both disasters, and Aceh's GDP growth rate was reduced by five percent and Nias's by 20 percent.
11. Approximately 40,000 people are still in tents in Aceh and Nias, but construction of temporary shelter is progressing. As of May 2006, 8,000

shelter frames had been erected. About a quarter of these have been completed with timber flooring and siding and additional timber deliveries are ongoing. A total of 133,500 new permanent houses are required, and construction is progressing; the government estimates that some 40,000 houses had been completed or were under construction as of early May 2006. While this represents significant progress, land allocation, tenure/ownership issues, and policies for people who did not own their land or houses require further clarification. In addition, many of the recently constructed houses lack essential infrastructure such as water and electricity. The need to import significant quantities of timber from sustainable sources has also been a challenge.

12. Of the 2,000 school buildings that were destroyed or damaged, 524 have been rebuilt or are under construction. In addition, over 2,400 teachers have been trained or are receiving training. In the health sector, eight hospitals and 114 health facilities were damaged or destroyed. All of the hospitals have been rehabilitated, and 51 health facilities and an additional 13 hospitals are under construction

13. As many as 100,000 small businesses were lost, 60,000 farmers were displaced, 60,000 hectares of farmland were destroyed, and 50,000 fishermen and tambak farmers were affected. A significant proportion of tsunami-affected people have returned to work, although it is unlikely that

their income has reached pre-tsunami levels. Economic recovery has been fueled by the construction boom and increasing empowerment of small and medium enterprises. Ongoing challenges include ensuring broad access to the economic benefits of the construction boom, delivering effective assistance to vulnerable populations, managing natural resources in a sustainable manner, and promoting access to an effective credit market.

14. The Indonesian Society for Disaster Management is undertaking public awareness campaigns and capacity building at district and provincial levels aimed at developing a Disaster Management Bill. The bill aims to strengthen capacities for disaster management, preparedness, and response at relevant national and provincial government agencies.

## **Maldives**

15. All but nine of the Maldives' 199 inhabited islands were flooded, and 53 suffered severe damage. A third of the population—approximately 100,000 people—was affected through loss of homes, livelihoods, and infrastructure damage. Total needs for recovery are estimated at \$393.3 million.
16. The economy was severely impacted by the disaster. Damages were equivalent to 63 percent of GDP, and the tsunami led to a contraction of GDP by approximately five percent in 2005. In addition to reconstruction

- costs, revenue decreases and high oil prices meant the government faced a \$93 million budget deficit in 2005. In addition, the Maldives continues to face a funding gap of over \$100 million for its recovery program.
17. A total of 10,970 people are still displaced, with approximately two-thirds on islands other than their own and the remainder on their home islands with friends or relatives. Housing remains a key priority. Of the 5,215 new permanent houses required, 141 have been built, with an additional 1,157 under construction. Increasing costs of transportation and building materials have slowed the process, and the sector still faces a funding shortfall of close to \$12 million.
18. Redevelopment of critical infrastructure such as harbors and jetties, which are instrumental for access to island communities, are another priority. The transportation sector currently faces a \$48 million funding shortfall.
19. Additional support is also required for restoring and enhancing livelihoods of the most vulnerable. Rehabilitation of home gardens, fruit trees, boats, and fish processing is ongoing on 50 seriously damaged islands, but more comprehensive and cross-sectoral assistance is necessary.
20. The tourism sector, which accounted for more than 70 percent of GDP, was hard hit. In 2005, tourist arrivals fell by 36 percent compared to 2004. The

industry has rebounded somewhat, and hotels were at 60 percent occupancy in December 2005. With this recovery and the leasing of 35 new resorts, the budget deficit is expected to be significantly reduced by the end of 2006.

The GDP growth rate for 2006 is expected to be around 12 percent, reaching pre-tsunami levels.

## **Sri Lanka**

21. Over two-thirds of Sri Lanka's coast was devastated by the tsunami, which caused more than 35,000 fatalities. Reconstruction needs are estimated at \$2.2 billion. The livelihoods of 500,000 people were affected, including an estimated 200,000 fishing households. Although there has been progress in recovery, the recurrence of violence in the north and east is increasingly becoming an obstacle to tsunami recovery programs in those regions and blocking access to some beneficiaries.

22. Through joint efforts by the government and its partners, some 54,000 transitional shelters were built within the first year, meeting all needs in this regard. There is a continuing need for care and maintenance of these facilities and a shortage of funds for this purpose. Nearly 41,000 permanent homes have been constructed or repaired, mostly representing partially damaged houses repaired by owners who received grants for this purpose. Another 47,500 houses are under construction or repair. High prices of

- construction and rebuilding of infrastructure at the new housing sites present challenges to the goal of reconstructing and repairing 100,000 homes.
23. Sri Lanka's housing policy was modified in early 2006 to account for revisions to the government's buffer zone policy, now known as the reservation zone. Under the new plan, 15,000 people who previously were to relocate from their land (because it was inside this zone) and thus qualified to have their homes rebuilt by donors in new, inland locations will instead receive grants to rebuild on the land they had inhabited prior to the tsunami. Other changes include allowing individuals who move across district borders to qualify for housing assistance and allowing families to share entitlements to construct larger houses.
24. Progress has also been made in replacing lost livelihoods. An estimated 70–85 percent of the affected population has regained a steady source of income. There is also evidence that people who did not work prior to the disaster are entering the labor market. Nonetheless, concerns remain in the fisheries sector, with an oversupply of boats in some districts, undersupply in others, and a shortfall in certain types of boats and gear. Sustainable management of fisheries and other natural resources is a long-term challenge.

25. Following construction of temporary schools and health centers, permanent facilities are now being reconstructed. Of the 182 schools that were damaged, eight schools have been completed, with 69 under repair or construction. Of the 222 health institutions slated for repair or reconstruction, 24 have been completed, and 64 are under construction.

### **Thailand**

26. The tsunami severely damaged Thailand's Andaman coast, leaving 8,212 dead or missing, a third of whom were foreign tourists.

27. A total of 4,806 houses were destroyed; 3,893 individuals requested government assistance in housing; and 3,349 houses have been built thus far. Challenges have included ensuring housing designs that meet the needs of beneficiaries, good land use practices in construction, and adherence to building codes. In addition, land disputes between local communities, private developers, and local governments have slowed the recovery process. Of the 407 villages affected by the tsunami, 83 have confronted issues relating to security of land tenure. About half of these disputes are being handled by the Land Subcommittee to Solve Land Disputes, a high-level panel established by the government to resolve land disputes and problems arising from or uncovered by the tsunami.

28. Damage to the fisheries and tourism sectors resulted in a 0.4 percent slowdown in GDP growth in 2005. The livelihoods of an estimated 200,000 people were affected, including 30,000 fishing households and 20,000 households that depended on the tourism sector. The government has provided fishing boats, tools, and hatcheries to nearly 19,000 people. While the tourism rebound has been slower than expected, recent tourism receipts show a small gain relative to 2005.

29. Although there has been some overall progress, livelihoods recovery remains an uphill battle. There is still considerable unemployment in the tourism sector, and many fishing villages—especially in the Muslim and Chao Lay communities—are struggling to make ends meet. Higher energy prices add to the burden, and greater efforts must be made to promote local community capacity building and enhance local ownership of livelihood efforts.

### **Malaysia, Myanmar, Seychelles, Somalia, and Tanzania**

30. The tsunami was extraordinary both in the intensity of its devastation and its wide geographical reach, with waves impacting land and people 4,000 miles from the earthquake's epicenter. Beyond the five worst affected countries, Malaysia, Myanmar, Seychelles, Somalia, and Tanzania also experienced varying degrees of destruction.

31. The tsunami was the worst disaster in Malaysia's history, claiming 69 lives and destroying or damaging the houses of 8,000 people, many of whom lived in poor fishing communities. In Myanmar, the official death toll was 61, with 200 villages and 10,000–12,000 people directly or indirectly affected along the southern coast. The tsunami damaged housing and infrastructure in Seychelles, where two people were killed and 950 families displaced. In Somalia, the tsunami struck just as the drought was coming to an end, and livelihoods were beginning to recover from flash floods, freezing rain, and environmental degradation. A total of 289 people were killed and 44,000 people required emergency humanitarian assistance. In Tanzania, the tsunami claimed 12 lives.
32. Recovery has involved a range of projects. In Somalia, for example, projects included emergency mental health services and a psychosocial project that helped 25,000 people cope with the effects of a series of disasters that have resulted in economic impoverishment, displacement, harsh living conditions, and increased insecurity. In Malaysia, disaster reduction efforts have included a government plan to dedicate a separate cell phone frequency for the dissemination of tsunami early warning text messages. In Myanmar, nearly 300 shelters were constructed, and small community infrastructure and training for women in fishing net making and repair have been provided.

### **III. Lessons Learned in Tsunami Response**

#### *Coordination in the Humanitarian and Recovery Phases*

33. Tsunami recovery has posed serious coordination challenges, particularly regarding government capacity, the large amounts of funding available, and the number of actors. Government coordination has been most successful where responsibilities have been clearly defined and delineated. In Sri Lanka, for example, transitional shelter coordination was relatively successful because the government entity managing that sector had a presence at the national, district, and divisional levels. Coordination in other sectors has been weaker because of overlapping responsibilities between line ministries and other authorities, which can slow decision-making, create obstacles to implementation, and result in uncertainty about accountability. Other factors constraining government ability to coordinate across the region includes limited capacity, particularly at local levels, and inadequate access to information, particularly during the relief phase.

34. Agencies have also faced challenges. To address coordination needs, sectoral coordination groups (such as for housing or education) were established in the field, but geographic coordination—between the different sectors and agencies at local levels—received less attention. Though

humanitarian needs were met quickly, the relief response was not predicated on joint needs assessments by agencies, bilateral donors, and governments, and therefore tended to be somewhat disjointed. In addition, pressure on agencies to spend large amounts of money quickly has not been conducive to coordination or investing in local partnerships. The abundance of different types of actors also makes coordination difficult and has resulted in gaps and duplication.

35. The large number of NGOs involved in recovery presented specific challenges. After the disaster, hundreds of NGOs arrived at disaster sites, placing great stress on local capacities. Because not all NGOs participated fully in the newly established coordination structures, some communities were over-assessed, while others went without services for a significant amount of time. A number of reports (including an April 2005 report by the International Council of Voluntary Agencies) have noted that international NGOs in Aceh did not sufficiently engage local NGOs and communities in conducting joint assessments and designing responses.
36. Coordination improved in the latter half of 2005, as governments pressed for greater attention and resources for coordinating international actors. In addition, most short-term programming ended, and, in the cases of Indonesia and the Maldives, greater governmental budgetary commitments came on line, helping to improve coordination. It also helped that staff turn-over was

reduced in favor of continuity. In addition, United Nations agencies have provided direct support to government coordination structures, including supporting Indonesia, Sri Lanka, Maldives, and Thailand to develop government owned and managed Development Assistance Databases.

37. Integrated United Nations coordination offices have been established to assist the Resident/ Humanitarian Coordinators in Indonesia, the Maldives, and Sri Lanka, with the aim of achieving a coherent and well-coordinated United Nations approach in support of governments in post-disaster recovery. Humanitarian and recovery coordination could be further improved with better participation of non- United Nations agencies and NGOs and the International Red Cross and Red Crescent Movement. In Indonesia, an Office of the United Nations Recovery Coordinator for Aceh and Nias was created to provide coordination support to the government, and it is reaching out to include NGOs. The United Nations' recovery coordination capacity has played a critical role in facilitating country team strategic planning, such as through the development of transition strategies in support of the governments' national recovery plans in Maldives and Sri Lanka, and the preparation of such a strategy for Aceh and Nias is underway.

38. In his capacity as the Secretary-General's Special Envoy for Tsunami Recovery, former U.S. President William Jefferson Clinton has promoted integration of efforts at the global level. Based in New York, his office

coordinates the broader UN system at headquarters level, working with United Nations actors and other major stakeholders, including the World Bank, the Asian Development Bank, the International Red Cross and Red Crescent Societies, and NGOs. This occurs through various mechanisms, including the bimonthly IASC-UNDG task force meetings and regular consultations with United Nations Resident/Humanitarian Coordinators and senior departmental and agency officials regarding policy. In addition, throughout his tenure, several times each year, the Special Envoy has convened a Global Consortium for Tsunami Recovery, which brings together national governments, United Nations agencies, the IFIs, NGO consortia, and donor governments to identify common priorities and promote an integrated approach.

### **Recommendations**

39. **Dedicated, field-based, recovery management structures:** Having devised special, post-tsunami recovery coordination structures that recognized a gap in existing capacity of governments, the United Nations should develop a flexible model for support to recovery coordination that could be quickly deployed in a post-disaster setting. In developing this model, due consideration should be given to the need to address: relations between the United Nations system and other actors; coordination funding requirements; division of departmental and agency authorities in the recovery process;

decision-making authority in the field; and effective integration of NGOs and the International Red Cross and Red Crescent Movement into United Nations -led post-disaster coordination structures.

40. **Adequate resources:** Adequate resources should be allocated to support coordination both in the recovery and the relief phases.

41. **NGO participation:** Support should be given to ongoing efforts by international NGOs to develop and utilize more effective NGO coordination structures in large-scale disaster response and to integrate more fully into United Nations -led coordination mechanisms.

### *Different Models of Government Humanitarian and Recovery Institutions*

42. The tsunami's impact varied in part because the affected countries did not share the same level of disaster preparedness. India and Thailand were able to respond effectively during the relief phase because both countries had well-functioning national disaster risk management systems. The Thai authorities swiftly activated the 1979 Civil Defense Act, which freed up resources and staff and enabled a clear decision-making structure. In India, locations with existing community-based preparedness initiatives suffered fewer deaths than those that had not benefited from such measures.

43. In Indonesia, Maldives, and Sri Lanka, new emergency regulations were adopted to manage the response and create new structures. Sri Lanka created the Center for National Operations and three task forces immediately after the disaster. The Task Force for Reconstruction of the Nation (TAFREN), which was concerned with long-term recovery, was replaced by the Reconstruction and Development Authority (RADA) in January 2006. In Indonesia, the central and provincial teams coordinating the disaster were replaced in April 2005 by the ministerial-level Rehabilitation and Reconstruction Agency for Aceh and Nias (BRR) tasked with leading the recovery.

44. Strong leadership by national governments is essential, as is clarity in roles, responsibilities, mandates, and lines of authority among line ministries, specially created entities, and national and local authorities. Among many other functions, strong leadership can help break through bottlenecks in aid distribution, such as customs and financial disbursement procedures.

45. Efforts have been made to strengthen and support national capacity to manage recovery. The Multi Donor Fund for Aceh and Nias, for example, which represents over \$500 million in funding, supports the Indonesian government to carry out reconstruction projects. The fund's objectives are ensuring an efficient and coordinated delivery of financial support, providing effective and transparent management of funds, and serving as a vehicle for policy dialogue between the government and donors.

46. While the existence of clear authority at the national level is essential, the willingness to decentralize authority to provincial, district, and local levels is equally important. Experience with decentralization clearly made a difference in this regard. In India, a central-level entity was responsible for planning and inter-departmental coordination, but responsibility for implementing recovery programs was vested at the state and district levels. In contrast, in Sri Lanka, district and sub-district administrations sometimes lacked the authority or capacity to take independent action and mobilize and allocate resources. In Indonesia, tensions have surfaced between the BRR, provincial authorities, and central line ministries. The BRR has recognized the need for decentralization and is currently implementing a policy for its staff to develop closer links at the district and sub-district levels. Empowering local authorities and more effective engagement of local communities are both critical.

### **Recommendations**

1. **Continued reform of recovery institutions:** A number of the affected governments have committed to sharpening the lines of authority of their central recovery institutions and/or transferring additional responsibilities to district and sub-district levels. These efforts, including the need to strengthen in-country disaster risk management capacity at all government levels, should be accelerated,

- and United Nations agencies should continue to provide assistance to encourage such reforms.
2. **Clarify rules and institutions:** In the context of reconstruction, roles, responsibilities, and lines of authority between national, provincial, district and local government entities should be clarified and clearly articulated to all stakeholders.
  3. **Harmonize laws and policies to facilitate effective international response:** Affected states should re-examine their disaster laws and policies in light of the tsunami, considering how well the laws and policies handled international assistance and to what extent existing structures include domestic civil society. In the process of developing new laws and policies, governments should seek to ease obstacles—such as cumbersome customs or procurement rules—to effective delivery. The International Disaster Response Law, Rules, and Principles Program can help facilitate harmonization of such policies.

### *Assessing Damages and Needs*

47. Accurate assessments are vital to successful disaster response. They are key to determining a figure for damage, losses, and needs, providing the basis to mobilize financial support. They also identify priorities for immediate needs and long-term recovery and document the disaster's socio-economic and

financial impact for comparison across countries and for advocacy of increased investment in ex ante risk reduction. Effective assessments can also lay the basis for coordination in the implementation phase.

48. Immediate post-tsunami needs were identified through a variety of sectoral and geographic assessments. There is general recognition that these multiple efforts could have been better coordinated, their results shared more widely, and, in some instances, their deployment made timelier.

49. The United Nations Flash Appeal resulted from multiple country assessments and received a rapid and generous response from donors; most relief actors received substantial contributions within days of the disaster. The Appeal also included early recovery needs, in the area of livelihood support, such as through cash-for-work programs. In response to government requests in India, Indonesia, the Maldives, and Sri Lanka, long-term needs were captured in comprehensive damage and needs assessments undertaken by the World Bank, together with the Asian Development Bank, United Nations agencies, government counterparts, and other donors and organizations. Response to the financial needs identified through these assessments has also been very strong, although the Maldives faces a shortfall of over \$100 million.

50. Obtaining an accurate assessment of early recovery needs is key to managing the transition from relief to rehabilitation and reconstruction. But this remains a challenge, and the United Nations and its partners continue to explore ways to improve this aspect of the assessment process. The absence of a standard early recovery needs assessment methodology, for example, hampers planning. It will be addressed in the coming year by through International Recovery Platform, an initiative started in May 2005 to support the development of standardized methodologies and more effective coordination in post-disaster recovery.

51. Time pressures present a major challenge in conducting accurate assessments. There may be poor baseline data to begin with or data may have been destroyed. Nevertheless, governments and aid agencies must respond quickly with figures of damages and needs to capitalize on fleeting global attention. For example, in Indonesia following the tsunami, the government wanted to take advantage of a donor meeting that had already been scheduled for early January to raise funds for recovery. This required initiating an assessment immediately after the tsunami, when critical relief operations were underway.

52. The tsunami has also shown that joint assessments can contribute to more effective aid coordination as agencies discuss plans for recovery support. Given the number of agencies that typically descend on a country, joint

assessments can make for unwieldy teams. Nevertheless, conducting such assessments jointly is important to avoid overwhelming government capacity to respond to multiple requests for information as well as to avoid scenarios where some communities are over-assessed and others neglected.

53. It is clear that needs change over time as more detailed information becomes available once recovery begins. This indicates that assessments should be an ongoing process. But damage and needs assessments tend to be one-off exercises that are not necessarily updated. This may result in limited flexibility and iterative planning during recovery. To some extent, inter-agency one-year reports for the affected countries provided an opportunity to reassess needs against progress and identify gaps and priorities for the second year of recovery. Indonesia's one-year report, for example, updated damage and loss figures, adjusted for price increases, added an assessment for Nias, and incorporated the needs of Aceh's conflict-affected areas. Delays in the recovery planning process also created new needs, such as for temporary shelter in Aceh in the absence of rapid movement on permanent housing construction.

54. Increased attention on monitoring needs should be coupled with a sustained effort for more meaningful consultation with affected communities. For example, in Aceh, there was a major effort to replace lost fishing boats. But the one-year report found that many boats were unsuitable in size, design,

and durability. On the other hand, effective consultation with communities led to the quick replacement of hand tractors in Aceh to improve soil preparation and reclaim some of the lands affected by salt water. A common beneficiary database and rigorous beneficiary consultation would greatly assist in better matching community needs with assistance. Better baseline data and ongoing data collection efforts are also critical to effective and ongoing needs assessments. Common databases with socio-economic data, such as DevInfo, would address some of these gaps by facilitating data sharing among stakeholders. In most of the affected countries, there are serious gaps in these areas.

### **Recommendations**

55. **Recovery needs assessment methodology:** A consistent methodology for needs assessments for the early recovery phase should be developed. It should include mechanisms that enable greater community participation in both assessment and planning.
56. **Access to critical information:** Aid agencies should increase support for national capacity to develop baseline data and guarantee ongoing data collection and analysis efforts during recovery so as to enable more effective assessment of relief and recovery requirements. The United Nations should

systematically support governments on these issues as part of their recovery operations.

**57. Joint needs assessments:** Relief and recovery assessments should be conducted by multi-agency teams to the extent practicable and should rely on effective protocols and mechanisms for timely information sharing to avoid gaps and duplication. These assessments should be periodically updated to ensure a better understanding of shifting needs and allow for adjustments in programming. A common database within existing government structures can greatly facilitate coherence.

***Transparency and Accountability to Donors, including Financial Tracking and Reporting, Monitoring and Evaluation, and Measuring Progress***

58. Several tools were developed to ensure financial transparency and accountability. The Expenditure Tracking System monitors financial assistance provided under the Flash Appeal and tracks spending by agency, country, sector, and project. In Indonesia, Maldives, Sri Lanka, and Thailand, Development Assistance Databases (DAD) track international assistance for long-term recovery. The DADs, which are available online, enable governments and their partners to monitor project results and track resources from all sources, setting a new benchmark for accountability and transparency and also serving as a development planning tool.

59. The success of these systems depends greatly on voluntary and regular updating by all agencies and donors of their data. Technical problems with the databases have, at times, complicated data entry, and efforts are being made to ensure that they evolve in response to user needs.
60. These initiatives complement efforts to promote accountability at the national level. In Indonesia, two independent boards, which report directly to the President, were established to oversee BRR's governance, operations, and disbursement of funds. An anti-corruption unit was established within the BRR to prevent and investigate corruption and build local capacity for detecting, investigating, and preventing corruption. In the Maldives, the National Disaster Management Center is overseen by a Board of Trustees and chaired by the Auditor General. Periodic audits are carried out to ensure transparency and effective utilization of funds. Procurement and disbursement mechanisms that build on standardized bidding, purchasing, and payment procedures are another important aspect of accountability. In Sri Lanka, the National Procurement Agency is an independent regulatory body that oversees procurement.
61. The NGO community has also focused on accountability to its donors, and many NGOs and their consortia have produced periodic accountability reports for public distribution. While these reports differ in level of detail,

most include the amount of money raised and spent, the purpose of the expenditures, and long-term plans for remaining funds.

62. Financial transparency alone, though, is not sufficient to guarantee accountability; audits, evaluations, and monitoring are also critical. The Tsunami Evaluation Coalition (TEC), which represents a broad coalition of United Nations agencies, donors, NGOs, and the International Federation of Red Cross and Red Crescent Societies, has conducted sector-wide evaluations in five thematic areas. Its initial findings were released in December 2005, and the final reports will be available in mid-2006.

63. The Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS) also aims to enhance accountability. Involving India, Indonesia, Maldives, Sri Lanka, and Thailand over 2006–2010, TRIAMS will monitor progress and assess impact of long-term recovery. The process was launched in May 2006, with participation from the governments of the five most affected countries, United Nations agencies, the International Federation of Red Cross and Red Crescent Societies, NGOs, and donors. The governments agreed on a core set of common impact indicators to be measured across the countries as well as country-specific ones. The governments also agreed to aim to produce a first synthesis report before the end of 2006. It will be important to ensure that such efforts are adequately

resourced and that governments establish effective country plans of action to ensure implementation.

64. To strengthen internal financial monitoring and control systems, United Nations agencies have entered into partnerships with the private sector. Price Waterhouse Coopers (PwC) donated 8,000 hours to enhance the UN's accountability mechanisms. Similarly, Deloitte Consulting provided UNDP with 21,000 pro bono hours to strengthen reporting systems and procurement processes.

65. Individual United Nations agencies and NGOs have their own monitoring, evaluation, and audit mechanisms. Most NGOs and United Nations agencies issued one-year public reports on tsunami funding and expenditures as well as independent evaluations of their tsunami responses, which are publicly available on their websites. Among United Nations agencies, the scope and intensity of internal and external audits of their tsunami operations is unprecedented. These measures need to be widely disseminated and shared with beneficiaries.

### **Recommendations**

66. **Support for the DADs:** All local and international organizations, including NGOs, involved in tsunami recovery should provide comprehensive

information to the DAD systems and regularly update this information.

Donors should sustain support for the further development of the DADs.

**67. Support for TRIAMS:** Governments of Indonesia, Sri Lanka, India, the Maldives, and Thailand have taken an important step in endorsing the impact assessment process in May 2006. This should be followed by the immediate preparation of national action plans to ensure effective implementation. Donor governments should provide financial support for this important initiative.

**68. Making information on accountability available to civil society:** In coordination with host governments, the United Nations should substantially increase efforts to disseminate information to beneficiaries relating to accountability measures and the status of recovery programs.

***Enhancing Sustainability: Involving Local Communities in Recovery***

69. Beneficiary participation and ownership of recovery is both a critical dimension of accountability and a prerequisite for effectiveness and sustainability. Recovery programs must put affected communities in the driver's seat in program design and implementation. Community participation can take many different forms. Communities can provide inputs at the planning stage, direct project design, and take responsibility for implementation, monitoring, and evaluation.

70. Involving communities can have a number of potential benefits, including helping ensure sustainable and appropriate outputs, building capacity at the local level, improving governance, increasing social capital, promoting environmentally sound solutions, fostering inclusion of marginalized groups, and promoting effective project implementation.

71. Effective participation, however, takes time and effort. This inevitably leads to trade-offs between promoting quick recovery and ensuring that communities are in the lead and that programs are geared toward building capacity.

72. Understandably, with the large number of agencies practicing community-driven development (CDD), approaches have varied greatly. This has led to inconsistencies and duplication, as well as frustration in some communities about the time required for meetings with numerous agencies and NGOs. Governments and implementing partners should better coordinate such efforts. A coherent and well-targeted information dissemination strategy throughout emergency and recovery operations would also help.

73. Communities have been involved in tsunami recovery in a variety of ways. In Sri Lanka, for example, planned Village Rehabilitation Advisory Committees will include beneficiaries in implementing and monitoring

recovery. Another initiative in Sri Lanka supported focus group discussions in over 1,000 villages to determine resettlement and livelihoods recovery needs and exchange information between beneficiaries and agencies. In Indonesia, villages are given grants to meet the infrastructure, basic services, or livelihood needs they have prioritized, and temporary schools have been constructed in consultation with local communities. In India, community representatives are involved in the construction, monitoring, and maintenance of water supply and sanitation facilities.

### **Recommendation**

**74. Community-driven development:** Although there have been admirable initiatives to encourage community consultation and dissemination of information to beneficiaries, programs have been uneven, uncoordinated, and have not been accorded sufficiently high priority. Ongoing efforts at decentralization of recovery and implementation of disaster risk mitigation legislation provide opportunities for renewed emphasis on engagement with local communities and information-sharing. Government officials and United Nations country teams should develop plans for enhancing these efforts.

### ***Economic Diversification and Livelihood Generation***

75. Programs to restore livelihoods and diversify economies are fundamental components of recovery. For the most part, the tsunami's greatest impact was on rural coastal communities that depended on the fishing industry and other natural resources. Restoring livelihoods must include rebuilding the physical infrastructure as well as training and skills development to diminish future economic vulnerability. In addition, programs must address inequality across gender and ethnic lines.

76. Overall, there has been reasonably good progress in livelihood generation. In Sri Lanka, 70–85 percent of affected households regained their main source of income within a year. Nonetheless, many programs have been hampered by weak coordination and limited integration of the efforts in different agencies. In addition, more work is needed to ensure that communities are sufficiently involved in driving livelihood recovery, which would help guarantee sustainability over the long term. Livelihood programs must also be initiated more quickly than has been common practice; households begin rebuilding their livelihoods within days, not months, of a disaster.

77. In Indonesia, attempts are being made through small grants and subsidized loans to integrate finance with training programs for small business recovery and local economic development. To support the recovery and beyond, self-

sustaining microfinance institutions need to be established that can provide opportunities for investments in self-employment and job creation, while offering a means for low-income individuals and groups to diversify sources of income and manage economic risks.

78. Long-term economic planning varies between countries. India is utilizing a phased approach, which includes short-term, one-year interventions to restore pre-existing levels of income; medium-term, one to three year programs to promote economic diversification, especially for youth and women; and long-term interventions, directed at income expansion and equitable distribution of income, which requires policy and institutional reforms. In the Maldives, an investment project, which will begin in 2007, targets greater economic diversification to improve economic stability; achieve a more equitable distribution of income; and attain sustainable growth. Sri Lanka has adopted three partly overlapping phases: initial cash grants, followed by cash-for-work programs, gradually replaced by microfinance and other programs.

79. There is a growing recognition of the need for convergence among different activities being undertaken by NGOs, community-based organizations, the private sector, and others. In India, for example, community resource centers are being developed to help monitor interventions and to serve as a rallying point for economic development. These centers would be a one-

stop shop for all major components of livelihood restoration, and could potentially serve as a model to help promote better coordination, pool and optimize resources, and ensure long-term sustainability.

### **Recommendations**

80. **Early emphasis on livelihoods:** Protection and restoration of livelihoods should be addressed as quickly as possible after a disaster, and early livelihood restoration programs should be included in Flash Appeals as a matter of practice.
81. **Enhanced coordination:** In the absence of effective information-sharing and coordination and with few comprehensive inventories of participants in livelihood recovery programs, gaps and duplication of efforts exist. Although coordination can best take place at the local level, the United Nations should encourage the development of a clearinghouse function for information on post-disaster livelihood programs.
82. **Economic diversification and long-term economic planning:** Affected governments, IFIs, and United Nations agencies must improve cooperation to ensure that livelihood programs are better incorporated into national level, long-term planning efforts, especially those that promote diversified economies. There has often been only limited integration of grassroots

livelihood programs and broader economic strategies. Moreover, the possibilities afforded by innovative financial services should be explored more closely in view of the advantages they offer for local economic development. Such an approach should balance asset replacement efforts.

***Risk Reduction, Tsunami Early Warning, and Incorporation of Prevention in Development Planning***

83. Taking steps to reduce future disaster risks and building safer structures are important components of building back better. Good progress has been made in developing early warning systems, but it is less clear whether safer houses and infrastructure are being built, livelihoods are becoming more resilient, better land use and environmental management practices are being utilized, and more effective disaster management systems are being created.

84. With the support of international agencies, governments have made concerted efforts to establish tsunami warning and response systems. They have done so through assessments of national and local capacity for disaster preparedness and emergency response, assessments of technological needs, and establishing national mechanisms for tsunami warning and mitigation.

85. A mechanism has been established under the Inter-Governmental Oceanographic Commission to develop the regional tsunami early warning

system. An interim advisory information network was rapidly implemented, using existing meteorological systems; this network consists of country focal points that receive warnings when natural hazards occur. Observation and warning systems are being upgraded, and an initial warning system should be completed by July 2006. Detailed needs assessments of national warning and response plans undertaken for 16 countries revealed many gaps, with considerable variation in progress between countries. The assessments are being used to target assistance in developing national plans.

86. Of the 29 countries participating in the Indian Ocean warning system, 20 lack national plans for a tsunami early warning and response system. To accelerate progress, in March 2006, a consortium of international partners offered advisory support to governments that have fallen behind in developing national capacity.

87. In addition, efforts are being made to increase public awareness and provide community-based support to disaster risk management, through workshops, training exercises, mass media information products, and school curricula. There is increasing recognition that a tsunami early warning system must be linked to other hazard warning systems and strongly embedded in a general disaster risk reduction approach. Moreover, it is critical that such systems can transmit comprehensible warnings to the most vulnerable communities.

88. The linkages between disaster management institutions, technical early warning organizations, and development planners should be strengthened to systematically reduce the disaster risks faced by countries, in line with the Hyogo Framework for Action 2005-2015.

### **Recommendations**

89. **Risk reduction and humanitarian and development planning:** Disaster risk reduction must be incorporated into relief and development planning, including needs assessments. Most agencies and NGOs accept this proposition, but it has not been realized in practice. All humanitarian and development organizations should urgently review their operating procedures to ensure adequate emphasis on disaster reduction principles as reflected in the Hyogo Framework for Action 2005-2015.

90. **Tsunami warning, the broader disaster reduction agenda, and building national capacity:** Tsunami warning systems should be linked to other hazard warning systems and strengthened as part of an integrated disaster risk reduction approach. National plans for warning systems should address the means to transmit warnings and should include disaster management, risk mitigation, public awareness, and community-based activities. Several governments have recently adopted or are considering legislation relating to disaster risk management. These processes should be accelerated, and

governments should take advantage of the agency consortium offer of assistance to ensure effective national plans of action.

**91. Role of the Intergovernmental Coordination Group for the Indian**

**Ocean Tsunami Warning and Mitigation System:** The Coordination Group should be utilized as the primary mechanism for regional coordination and should be encouraged to factor in broader disaster management and development perspectives wherever possible.

***Human Rights: Equity, Gender, Vulnerable Communities, Incorporation of Human Rights Principles into Humanitarian Programs***

92. Although disasters may have significant implications for the rights of affected communities, in the rush to provide disaster relief, a rights-based approach may be overlooked. A disaster can exacerbate pre-existing vulnerabilities. Internally displaced people (IDPs) are usually housed in temporary camps or barracks, which can lead to conditions that violate human rights. Inequities in aid distribution can also raise human rights concerns.

93. Experience in a range of recovery operations has revealed a number of rights based concerns. These include inequitable access to assistance, discrimination in aid provision, involuntary relocation to—or exclusion

from—settlements and camps, sexual and gender-based violence, lack of access to education, the loss of documentation, property restitution, and weak participation of beneficiaries in decision making.

94. Post-tsunami efforts appeared to replicate some of these patterns. For example, pre-existing patterns of marginalization and discrimination have affected aid distribution. Aid equity has been an issue, as tsunami-affected populations appear to have benefited disproportionately from generous assistance programs in comparison with less directly affected communities who nevertheless remain poor and marginalized for other reasons.

95. International agencies can work to ensure that recovery is conducted within a framework that protects and promotes human rights. At present, a set of operational guidelines on human rights protection in situations of natural disasters—with particular reference to IDPs—is being finalized. These guidelines are based on the Universal Declaration of Human Rights and other conventions, complementing existing standards such as the Guiding Principles on Internal Displacement, the Sphere Humanitarian Charter and Minimum Standards in Disaster Response, the Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief, and the Inter-Agency Standing Committee's IDP Policy.

96. Governments, however, shoulder the primary responsibility for delivering assistance and protection, and affected populations have the right to seek and obtain assistance and protection from their governments. Non-state actors—both international and local—must recognize this fact and cooperate fully with national authorities in providing assistance.
97. A human rights advisor attached to the United Nations Country Team in Sri Lanka has assisted in developing successful human rights-based initiatives. The human rights advisor worked closely with Sri Lanka's Human Rights Commission (HRC) to develop and support the work of a disaster relief monitoring unit, which has handled more than 19,000 complaints from beneficiaries, undertaken field visits, and engaged in advocacy with local and national level officials. The HRC also cooperated with the UN to facilitate consultations in 1,100 affected communities, which produced an important report on people's needs and grievances.
4. An additional concern relates to ensuring that women are benefiting equitably from recovery. Prevailing methods of livelihood support may have limited agencies' ability to provide equitable programming. Program priorities are, at times, influenced more by the relative logistical ease of delivery rather than by an assessment of relative need. The livelihood requirements for men have largely related to boats, nets, seeds, and tools, which are replaced through relatively straightforward asset replacement projects. Women's livelihoods, on the other

hand, often require links to international markets or involve home industry, which may require space in houses. Delays in providing shelter also may have disproportionately affected women's livelihoods opportunities.

98. The tendency to rely on standard packages of assistance has also meant that special needs for vulnerable groups, including women, the elderly, and the disabled, were not always met in time, particularly in the relief phase. During the recovery phase, agencies established thematic working groups, including for gender, which have helped to address the need for different kinds of support. While such efforts are welcome, United Nations officials and local authorities would be in a better position to address these issues if more statistical information on beneficiaries, disaggregated by age, gender, and other salient information, were available as early as possible.

### **Recommendations**

99. **The operational guidelines:** The new operational guidelines on human rights protection in situations of natural disasters should be widely disseminated and considered by all actors in the tsunami-recovery effort. Governments, international organizations and NGOs should develop plans for incorporating the guidelines into their disaster recovery operations.

100. **Encouraging equity in assistance:** Governments, donors, and implementing agencies should carefully consider the implications of assistance programs on existing vulnerabilities and patterns of discrimination and on equity among different segments of the population. Programs of assistance should demonstrate how they are promoting equity within and across communities.

101. **Sustaining special efforts to address issues of gender:** United Nations agencies, governments in the affected region, and member states should support continued efforts to address gender considerations in the recovery process, including through increased collection of statistical information on the tsunami-affected population disaggregated by age, gender, and other pertinent information.

### *Environmental Factors in Risk Reduction and Recovery*

102. The tsunami had tremendous environmental impacts, some directly attributable to the disaster and others that have resulted from recovery. Lack of attention to the link between environmental management and disaster risk reduction has resulted in lost opportunities to build back better.

103. The tsunami generated unprecedented amounts of debris, which constitute a short-term environmental risk. Poorly planned removal of debris has

increased clean-up costs and led to lost opportunities to recycle. Still, there are some positive examples of environmentally friendly efforts. In the Maldives, waste management programs have included clean-up of hazardous waste (asbestos, oils, and healthcare waste) and tsunami debris and construction of new waste management centers. The governments of the Maldives and Indonesia have also established waste management forums to coordinate donor, agency, and national responses.

104. Decisions made under pressure can have dramatic environmental costs, many of which could be avoided through preparedness and greater commitment to planning. In some cases, recovery programs did not pay attention to long-term environmental concerns. For example, demands for timber for reconstruction are burdening already threatened forest resources. In addition, inefficient kilns used for brick production consume huge volumes of firewood. The sources of timber and fuel wood are a continuing concern, but few clear policies on sustainable timber have emerged. Demand for rock, sand, and gravel have also placed great pressures on natural resources.

105. At a meeting in Cairo in February 2005, representatives of all tsunami-affected governments and supporting international institutions adopted the Cairo Principles for Post-Tsunami Rehabilitation and Reconstruction, which provide guidelines for coastal reconstruction (such as the creation of no-

build zones close to the coast, the adoption of building codes, and the preservation of wetlands, mangroves, seagrass beds, and coral reefs as a means of protection). Several governments are seeking to implement these principles. In Sri Lanka, for example, the Coast Conservation Department aims to ensure that the principles are respected in the reconstruction process. Similar developments have begun in Thailand and the Seychelles. Such efforts hold promise for a more strategic approach to addressing environmental concerns.

## **Recommendations**

106. **Effective deployment of environmental expertise:** United Nations agencies and affected governments should ensure effective deployment of environmental expertise in all stages of disaster response, rather than after key decisions have already been made.
  
107. **Integrating environmental issues into recovery, planning, and implementation:** The use of sustainable building materials and construction practices and the promotion of alternative energies will be more fully integrated in recovery plans when they are included in the needs assessment processes. Any review of needs assessment methodologies should promote the regular inclusion of these considerations.

108. **Strengthening waste management programs:** United Nations agencies and NGOs should strengthen programs to support governments and communities to undertake proper sorting, storage, disposal, and recycling of tsunami waste as well as to develop integrated strategies for long-term waste management.

109. **Environmental governance:** United Nations agencies should promote strategic environmental frameworks that provide clear guidance as to the environmental responsibilities of key stakeholders and shift policies from a focus on prevention of environmental damage to a proactive focus on building back better.