

Lessons from Tsunami Recovery in Sri Lanka and India

COMMUNITY, LIVELIHOODS, TOURISM AND HOUSING

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REPORT 1

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1. Introduction

Between 2006 and 2010, a large and wide-ranging study of post-tsunami recovery and rehabilitation in Sri Lanka and India was completed by a team of researchers from Monash and RMIT Universities in Melbourne. Given the scale of the 2004 tsunami disaster and the extent of the damage spread across four separate countries and a huge number of towns, cities and villages, and given the unprecedented amounts of aid funding that flowed into affected areas, it is obviously critical that the world should learn as much as possible about the strengths and weaknesses of relief and rehabilitation efforts. Major post-tsunami studies¹ have concluded that the immediate relief effort was largely effective but that the longer term social recovery work has been less impressive. Furthermore, the post-tsunami rehabilitation work involved the most extensive relocation and resettlement of dislocated people yet undertaken and so it is critical to learn important lessons from this resettlement process. This study focused on major challenges for social recovery—i.e. rebuilding local communities and household livelihoods—and it also examined the design and delivery of housing in resettlement programs. In Sri Lanka, as in Thailand, the tsunami hit coastal areas that have been popular destinations for international tourists and the Sri Lankan government put a high priority on rebuilding the shattered tourism industry. So this study also examines the challenges involved in establishing sustainable coastal tourism in Sri Lanka, in particular.

In order to cover so many topics and to implement research methods relevant to different lines of inquiry, the researchers have worked in several teams. However, what gives the study a common base is that we selected five case study areas in which we would conduct original research, making it possible to compare experiences across a wide range of affected local communities. Considerable thought and effort went into selecting a range of local communities that could yield informative comparisons and further effort went into building relationships with local community leaders and local community-based organisations that could enable the researchers to conduct effective fieldwork within the selected areas. The study on rebuilding local communities was based on fieldwork undertaken across all five of the case study areas while the studies on household livelihoods and the design and delivery of new housing were based on work undertaken within resettlement communities in four of the five areas. The study on tourism has focused primarily on the challenges involved in building a stronger and more sustainable tourism industry in the popular coastal areas of southern Sri Lanka, although it also reviews the prospects for strengthening tourism in Tamil Nadu.

All five of the case study areas suffered severe tsunami impacts and they were:

- **Seenigama**, in the Galle District of southern Sri Lanka, where almost all the residents are Sinhalese Buddhists;
- **Urban Hambantota**, where the local population is fairly evenly divided between Sinhalese Buddhists and Tamil-speaking Muslims (even though the broader Hambantota District is predominantly made up of Sinhalese Buddhists);
- **Thirukkovil**, in the Ampara District of eastern Sri Lanka, where a population of mainly Tamil-speaking Hindus has lived in close proximity to an historic Hindu temple;

¹ See for example, John Telford and John Cosgrave 'The international humanitarian system and the 2004 Indian Ocean earthquake and tsunami', in *Disasters* 31(1), pp 1-28, 2007.

- **Sainthamuruthu**, also in the Ampara District, where a population of Tamil-speaking Muslims lives in close proximity to an historic mosque;
- **Northern Chennai** in India where tsunami survivors from eight coastal villages were relocated into two permanent new settlements further from the sea.

The choice of these case study areas proved to be inspired because they certainly reflect a good range of post-tsunami experiences in Sri Lanka and India and they provide deep insights into the ways in which the recovery effort was handled at a national level in Sri Lanka and at the level of the state of Tamil Nadu in India. While Sri Lanka—along with Aceh, Indonesia—received unprecedented amounts of international aid after the tsunami disaster, India initially proclaimed that it would need little international aid to undertake its recovery effort. Over 500 aid agencies participated in the relief and recovery operations in Sri Lanka² and many of these had no prior experience in long-term social recovery after a large-scale disaster. While this study has examined the work of international aid agencies in the five case study areas, it has also focused on the work of local NGOs and community-based organisations. The researchers took considerable effort to understand the background of the local communities in each of the five case study areas and a profile of each area and the communities that were affected by the tsunami is presented in Report Number 2 in the accompanying series of reports. An understanding of the case study places and communities helps to make sense of the research outcomes in each place.

In following several lines of inquiry over more than three years, the researchers have accumulated a very large quantity of information and data. Each line of inquiry has required different research methods and different forms of data analysis. Instead of trying to compress all of this into a single report, we have decided to present a set of relatively independent, yet connected, research reports. We also include a report on a symposium that the researchers held in Hambantota, Sri Lanka, in May 2010 to get feedback on draft research findings. Nearly 40 people involved in post-tsunami recovery and rehabilitation work across the five case study areas attended this symposium and the consultation resulted in some amendments to draft research reports. This 'extra step' has undoubtedly given the research outcomes greater authenticity. In all we are presenting seven reports:

Report 1: Overview Report

Report 2: Profiles of Case Study Areas and Communities

Report 3: Rebuilding Community

Report 4: Post-tsunami Household Livelihoods

Report 5: Tourism Opportunities and Challenges

Report 6: Design and Delivery of Housing in Resettlement Programs

Report 7: Report on the Hambantota Symposium on Draft Research Findings

² Silva, K.T., 'Tsunami third wave and the politics of disaster management in Sri Lanka' *Norwegian Journal of Geography*, Vol 63, pp 61-72, 2009.

Community building, housing, livelihoods and to a lesser extent tourism development, are interlocking themes, and many issues identified by the researchers resist categorisation under a single heading. These issues--such as beneficiary selection, settlement location and housing quality--have overlapping implications, and where appropriate, are discussed separately in the reports. The findings in relation to each issue, while consistent across the reports, reflect the differing emphasis brought to bear by each thematic perspective. For example, both the community and housing reports consider housing quality and the concerns raised by many community members about the new houses they were provided. In addition, both reports consider the intersection of physical and social planning needs in the design of public space and amenities and efforts to establish 'model villages'. Whereas the report on household livelihoods finds that relocation over relatively small distances had little impact on the resumption of former livelihoods after resettlement, the report on rebuilding community notes some of the difficulties that even relatively short relocations imposed on people with few resources. While household microenterprises have an important role to play in livelihoods rebuilding, the community report finds that microenterprises received undue attention from aid agencies at the expense of small and medium businesses, and the livelihoods report notes an excessive focus on microenterprises at the expense of longer-term planning for regional and national development. The full picture can only be gained by reading the reports as a set.

It should be noted that the report on rebuilding communities is aimed primarily at aid agencies and government authorities who have, or take, responsibility for getting particular, disaster-affected communities back on their feet. This, of course, is a necessary starting point. The reports on household livelihoods, tourism, and the provision of adequate housing within resettlement programs, however, go beyond the local focus to examine broader policy settings.

This overview report includes a summary of key findings from the substantive studies on community, livelihoods, tourism and housing, contained in Reports 3-6.



2. Rebuilding community

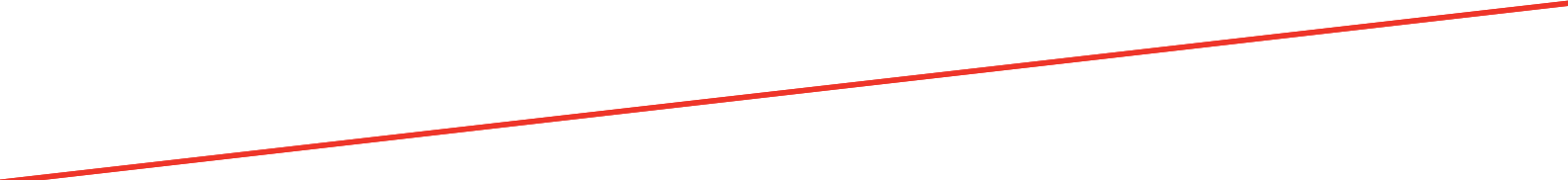
A study undertaken by the UK-based Tsunami Evaluation Coalition in 2007³ concluded that the world had learnt a great deal about how to manage disaster relief from the 2004 tsunami but little about how to put affected communities ‘in the driving seat’ of the recovery efforts. Interviews conducted with representatives of both international and Sri Lankan NGOs a year after the tsunami suggest that most of them talked of a need to shift the emphasis from relief to community development in the second year of recovery. This study confirms the view that immediate relief work needs to be carried out as quickly and effectively as possible and that badly traumatised communities are not likely to have the time or inclination to be involved in consultations about how this work should be done. However, it also shows that respected community organisations need to be involved in the distribution of relief aid in order to ensure that it is properly targeted and that it does not inflame or create divisions within the affected communities. Once the disaster victims have all been provided with adequate food, shelter and medical treatment, and after care has been taken to deal respectfully with the dead, efforts must be made to establish fair and transparent processes for assessing further relief needs.

In Sri Lanka international aid agencies and national NGOs focused heavily on replacing the assets that tsunami survivors had lost. Such an ‘asset replacement’ strategy cannot deal with pre-existing vulnerabilities—such as poverty or exposure to risks—and it can never give substance to the much-repeated mantra to ‘build back better’. Only in Seenigama—where a pre-existing local NGO had a well-developed community plan that benefited from the inflow of aid funding—and to a lesser extent in Hambantota—where tsunami aid funds were used to act on pre-existing plans for substantial regional economic development—can it be said that some substance was given to the slogan of ‘build back better’. This cannot be said of local communities in the Ampara District of Sri Lanka and the ‘slum clearance’ strategy adopted in Chennai did not improve life for the tsunami survivors. Only a community development strategy—rather than an asset replacement strategy—can ever give substance to the notion of ‘build back better’.

This study finds that more care and attention should have been devoted to the construction of temporary housing shelters because some of these housed families for up to four years after the disaster. A much more deliberative approach then needs to be taken to the physical and social planning of new housing settlements for those displaced by the disaster because many mistakes were made by rushing this process in Sri Lanka and the negative long-term consequences for people and communities have been quite severe. As the founder of Sri Lanka Solidarity, Philippe Fabry, put it, ‘It should not be a matter of just putting people into houses in empty paddocks but of thinking how these communities might be operating in 10 or 20 years time’.

This study shows that every effort should be made to either return disaster victims to where they had lived or as close as possible to where they lived before the disaster. The ‘deliberative planning’ of new settlements requires good knowledge of the local communities; their particular needs and cultural practices. It also requires a good understanding of how affected communities might resolve past or new conflicts and tensions and develop a more inclusive sense of community. While there is no simple

³ See John Cosgrave (2007) *Synthesis Report: Expanded Summary, Joint evaluation of the international response to the Indian Ocean tsunami*, Tsunami Evaluation Centre, London.



formula for knowing when to shift the emphasis from relief to community development in a post-disaster situation, There is clearly a need for people with community development skill and experience to participate in the planning and implementation of social recovery strategies. Community development planning should begin as soon as the immediate 'survival needs' of disaster victims have been addressed and this must be done in close consultation with people who have very good knowledge of the affected communities.

A key finding of this study is that a two-year timeframe would rarely be adequate to ensure that severely traumatised local communities are able to function effectively as communities. Most international humanitarian organisations have specialised in relief and early rehabilitation work and they must respond to multiple disasters; hence the tendency to 'move on' after a period of two years or less. Few organisations can sustain a commitment of three to five years for working in a particular community. In some cases local NGOs can take on the longer term commitment but even they face competing priorities. Given that climate change predictions suggest that the world will face more frequent and often more severe natural disasters over the next century at least, it may be necessary to establish a whole new profession of post-disaster community development specialists, drawn from as many countries as possible. Such specialists would need to receive appropriate training—perhaps in universities but also through supervised fieldwork—and they need to be consulted in the early stages of post-disaster relief work. The Tzu Chi Foundation in Taiwan has established its own university to train people in post-disaster recovery—with an emphasis on health care—and this study found that the Tzu Chi volunteers who came to Hambantota immediately after the tsunami were seen as being the most effective and 'professional'. However, these people were trained in effective relief rather than longer term community development and those trained to play the longer term roles need to have specific skills in working with local people and community-based organisations. Given that natural disasters can strike anywhere in the world, at any time, there might be an argument for setting up an international fund to establish appropriate training for post-disaster community development specialists and such a fund could possibly be used to establish an international training centre located in a country that has experienced a fairly recent natural disaster.

The Rebuilding Community study used an extensive review of relevant international literature in order to identify challenges and questions that needed to be addressed in relation to the post-tsunami experience in Sri Lanka and India. These 'topics' were then addressed on the basis of the fieldwork undertaken in the five case study areas. While it was easy to identify weaknesses in social recovery efforts, researchers Martin Mulligan and Yaso Nadarajah set out to find and analyse some examples of good practice. The report concludes with the following key findings;

1. Life was particularly difficult for women in the immediate aftermath of the tsunami disaster, especially while they were living in 'temporary' accommodation settlements. In many cases, women needed to stay strong for the sake of their families, even if they were living in circumstances that did not allow them to feel safe. More should have been done to support women and children in the early rehabilitation stages. There needed to be greater understanding of local cultural practices in regard to the role of women in society.

2. The contribution made by local people and organisations to the relief and rehabilitation operations has not been well documented and more should be done to learn from the experiences of all the affected communities in this regard. Considerable local knowledge in disaster recovery can be accumulated in disaster-prone areas but this is rarely made available to other affected, or disaster-prone, communities.
3. Our study confirms that religious centres tend to become an important refuge for disaster victims and their role in this regard needs to be acknowledged and supported.
4. There was an inadequate understanding in both Sri Lanka and India about the ways in which small children are affected by severe trauma, both in the short- and long-term. More research needs to be done, and shared, on the psycho-social needs of children who have survived major disasters.
5. Past experience has demonstrated that violent political movements sometimes start among young people who feel that they have been neglected or forgotten by society and this makes it even more important to ensure that the needs of young people— e.g. job opportunities or safe places to meet—should be considered in disaster rehabilitation work.
6. Aid workers need to have a good understanding of pre-existing vulnerabilities and fault-lines in disaster affected local communities. This highlights the importance of working with local people in the relief, rehabilitation and reconstruction effort.
7. At the national level in Sri Lanka post-tsunami aid funding was not distributed equitably between the southern and the eastern regions. For example, more new houses were built than needed in Hambantota while more than 400 Muslim families at Sainthamaruthu were left to 'rot' in cynically named 'welfare camps' when the national government announced that all the aid money had been expended. External agencies should try to balance inequities in the distribution of post-disaster aid, even if it may be more difficult to work in some areas compared to others.
8. The inequitable distribution of tsunami aid in Sri Lanka has exacerbated some pre-existing tensions at both national and regional levels. This study showed there is far less confidence about the future within the case study communities in the Ampara District compared to those in the southern province.
9. The 'buffer zone' policy in Sri Lanka was clearly a disaster—especially for the people at Sainthamaruthu—and the common assumption, in both Sri Lanka and India, that people would be better off if moved further from the sea, was sometimes counter-productive. While the tsunami did provide an opportunity to rethink coastal development, very little consideration was given to the needs and hopes of those who had previously lived near the sea. Relocation was not always in the best interests of tsunami-affected communities.
10. In India there was a large disparity in the way that tsunami survivors in Chennai were treated compared to those living elsewhere in Tamil Nadu and Kerala. Tsunami survivors in Chennai were classified as 'slum-dwellers' who needed to be relocated into 'more suitable' housing by the Tamil Nadu Slum Clearance Board (TNSCB). This meant that even less thought was given to the rebuilding of new settlements adjacent to the coast and the tsunami survivors in Chennai were at the whim of the TNSCB.

11. In Sri Lanka, competitive aid agencies were often in a rush to complete the construction of new houses and new settlements. As a result, many of the houses were poorly constructed and the villages were poorly planned. There should have been more emphasis on constructing adequate temporary accommodation shelters so that a better co-ordinated and more deliberative processes could have been undertaken in regard to the planning and construction of new houses and new settlements.
12. India has established a disaster management system, which partly reflects the tsunami experience, and under this plan there are national and district disaster management authorities. Other countries can learn from this experience. However, this study suggests that there should also be community-based disaster management committees which have the support of a wide range of community organisations and agencies. In the first instance such committees need to ensure that the local lessons of past disasters are documented and archived for future reference. Community disaster management committees may not need to meet very often, provided they are confident that adequate plans are in place for any future local disasters. Such plans need to be based on past experience rather than any abstract 'manuals'.
13. In both Sri Lanka and in Chennai new settlements were constructed with very little thought given to basic infrastructure—e.g. water supply, adequate roads—or important community facilities such as shops, places for worship or public space. As Sri Lanka Solidarity founder, Philippe Fabry, put it, the aim should not have been to simply put people into houses placed in empty paddocks but to think of how the new village might be operating in 10 or 20 years time.
14. 'Model villages' need to be assessed in five to 10 years time. However, the patchy approach to the planning and construction of post-tsunami villages threatens to create new tensions and conflicts within local communities. For a start, tsunami survivors have been left with assets of very different value, through no fault of their own. Much more should have been done to ensure that adequate minimum standards were met in regard to design and construction.
15. Arrangements must be put in place for the ongoing maintenance of community facilities constructed by 'external' aid agencies.
16. There was a widespread problem in not providing adequate or appropriate kitchens, bathrooms and toilets in post-tsunami housing in Sri Lanka and Chennai. In part, this may reflect the fact that the needs of women were neglected and it reflects a lack of research within the affected communities on the part of architects and planners.
17. All partnership agreements regarding the construction of new houses and community facilities need to result in written contracts that clearly comply with local and national standards. Local government should have the capacity to ensure that adequate and culturally appropriate standards are met in regard to reconstruction work.
18. The Sri Lankan People's Church came up with a very innovative method for monitoring the quality of housing construction in Kudilnilam, in that they allocated the houses before construction began and briefed the incoming residents on how to make sure that the builders were complying with agreed specifications. Building contractors would not be paid unless negotiated specifications were complied with.

19. From the perspective of this study, only in Hambantota can it be said that an attempt was made to live up to the mantra of 'build back better'. Yet even here an obvious lack of community consultation in the planning of the expanded regional urban centre meant that the implementation of the new plan caused unnecessary pain and hardship for significant numbers of people. While there is broad community support for the economic development strategy in Hambantota, this study suggests there has been significant community concern about the way it has been implemented.
20. Poor planning of new settlements—especially in Chennai—meant that people quickly lost their initial enthusiasm for gaining a new house and community morale declined noticeably over a period of time.
21. When disaster survivors are relocated into new communities on the basis of a simplistic analysis of their needs, such people can experience social isolation and resulting anxiety. More thought should have been given to ways of clustering people in new settlements in order to facilitate the emergence of self-generating social networks and forms of mutual support.
22. A two-year timeframe for offering aid to disaster-affected communities, especially those who experience relocation, is generally not sufficient for creating a new and resilient sense of community. There is a clear need for community development workers—either local or non-local—who can work in such communities in order to help establish sustainable social networks and forms of self-government, however long that might take.
23. There are important and distinctive roles for external and local NGOs, community-based organisations (CBOs), and community 'activists' in all stages of disaster recovery, and especially in the planning of new permanent settlements. External agencies—such as the People's Church at Kudilnilam and the Tzu Chi Foundation at Hambantota—can play a valuable role in community development work provided they can clearly gain the confidence of the community concerned.
24. It is critically important to establish spaces for important cultural practices—such as religious rituals—as soon as possible after a disaster. Although different people and different cultures have many different ways for dealing with loss and trauma, traumatised communities can benefit from having opportunities to participate in community gatherings and rituals. Furthermore, rituals can also help to re-establish a sense of identity within a broader cultural setting, as was the case with the construction of the temple at Thillagar Nagar. The story of the temple at Thillagar Nagar is particularly instructive while the revival of the 'perehera' (community parade and festival) at Seenigama also provides inspiration.
25. Too much emphasis was put on establishing 'microenterprises' as a way of generating household livelihoods in the wake of the tsunami. While there was clearly an urgent need to provide people with some equipment they could use to generate an income, this study suggests that more considered attempts to build small to medium 'community-level' enterprises were more successful. Once again, this suggests a need for a more deliberative approach to the planning and development of new, post-disaster, enterprises within affected communities.
26. Self-help groups (SHGs) clearly played a positive role for many people—especially women—among the tsunami survivors living in the large Tsunami Nagar temporary accommodation settlement in Chennai. However, only a small number of these SHGs survived when people moved into the new permanent settlements at VOC

Nagar and Thillagar Nagar because circumstances had changed so much. Clearly, the purpose and function of the SHGs needed to be reviewed when people moved into new settlements.

27. Poor coastal communities have traditionally had a degree of food security through subsistence fishing and in Sri Lanka many of the communities affected by the tsunami had been able to grow fruit and vegetables in home gardens. Global uncertainties about food prices, food availability and the impacts of climate change on food production, make it even more important to consider ways in which people can grow their own food, either in home gardens or, where feasible, community gardens. However, this was rarely taken into account in planning new settlements in the wake of the tsunami in Sri Lanka or Chennai. While there were some small initiatives in regard to planning for environmental sustainability in the new settlements, bigger opportunities were largely missed.
28. In this study we came across some exemplary community development work carried out in very difficult circumstances and sometimes by organisations that had little or no previous experience in such work. The stand-out organisations were the Foundation of Goodness at Seenigama, the Tzu Chi Foundation at Hambantota and the People's Church at Kudilnilam near Thirukkivil. Leaders of these three organisations had clear philosophies regarding the nurturing of self-worth and the building of self-directed ethical responsibility among people who had survived the disaster.
29. In this study we also came across some very impressive community-based organisations (CBOs) which rose magnificently to the challenge of the disaster that had impacted their communities. Prominent among these were the Al Hikma Foundation at Hambantota and the Natural Environmental and Social Development Organisation (NESDO) at Sainthamuruthu. The study suggests that a wide range of CBOs and humanitarian organisations can strengthen 'civil society' at all levels from the local to the national in countries recovering from disasters. However, the term 'civil society' was only used by the Director General of the Hambantota District Chamber of Commerce, Azmi Thassim, in relation to the tsunami experience. The formation of the 'civil society committee' in Hambantota, in the immediate aftermath of the disaster, established a valuable precedent.
30. Disaster recovery always involves a complex mix of local needs and action combined with national and global 'interventions' and it is critical to understand how such interactions work, from the local to the global. The experience of the tsunami in both Sri Lanka and India suggests that more needs to be done to build local and regional capacity to respond to disasters but gestures in this direction since the tsunami in Sri Lanka and India have not been sustained and meaningful. Perhaps international aid to countries that have experienced natural disasters needs to focus on meaningful strategies for building local and regional capacity, including a strengthening of civil society at these levels. However, this should not get in the way of ensuring quick and efficient disaster relief.
31. The Foundation of Goodness has emerged as an innovative agency with a clear capacity to work across all levels from the local to the global. In particular, FoG founder, Kushil Gunasekera, developed clever strategies for harnessing global support for his model of local community development. However, FoG now faces a challenge to sustain itself as a viable organisation without an ongoing flow of post-disaster aid funding. It is trying to meet that challenge.
32. Effective partnerships between international aid workers, local NGOs, community-based organisations, and local community 'activists' can help to promote broad, 'cosmopolitan', forms of nationalism rather than more narrow 'ethnic nationalism'. They can establish transnational forms of solidarity that overtly promote social justice at local and global levels.

3. Household livelihoods

Based on research conducted in Hambantota, Seenigama and Thirukkivil in Sri Lanka, and Chennai in India, this report assesses household livelihoods in post-tsunami resettlement programs and identifies policy issues and challenges for future livelihoods development. The main policy issues are as follows: First, the fisheries sector remains a key source of income but requires better management for improved efficiency and sustainability of the resource base. Secondly, the non-fisheries sector, which is underdeveloped in the case study locations, requires investment in infrastructure and human capital and targeted support for local businesses. Third, while diversified local economic growth is important, it is not sufficient to foster prosperity. Social, economic and physical obstacles to labour mobility, both in-country and internationally, must be removed to enable workers to go where their skills are most valued. Finally, households which lack income-generating capacity need access to decent social security schemes.

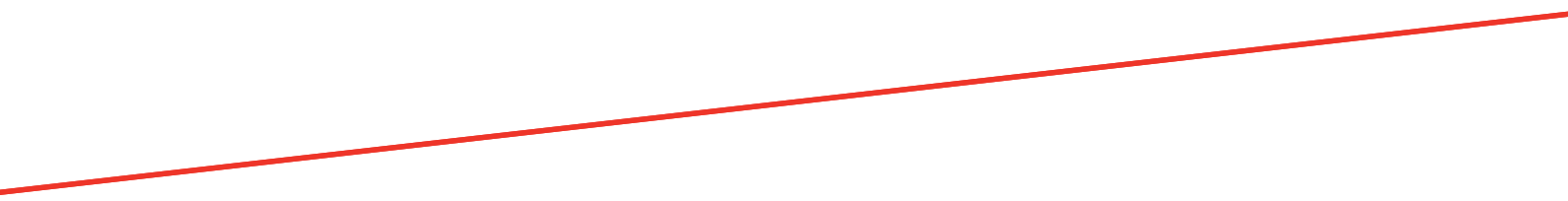
Many coastal communities in India and Sri Lanka rely on a limited and precarious livelihoods base. Marine resources, the principal source of income for many households, are under pressure from over-fishing and eco-system degradation. At the same time, options for alternative income-generating activities (IGAs) are constrained by poor infrastructure, low educational attainment, weak markets and lack of finance. The lack of a strong diversified livelihoods base intensifies dependence on fisheries, increasing vulnerability to shocks and income fluctuations and further compromising the long-term sustainability of the natural resource base.

Over-dependence on fisheries resources is a policy concern which pre-dated the tsunami by several years, but prior to 2005 there were few coordinated attempts to address the problem. After the tsunami, however, the substantial resources available for livelihoods reconstruction provided a rare opportunity to improve rather than restore the *status quo* by addressing underlying economic and social issues that have contributed to higher-than-average levels of poverty in tsunami-affected areas.

The tsunami caused major disruption to livelihoods through loss of assets and infrastructure, collapse of markets, deaths, injuries and psychological trauma. Five years later, it is apparent that for the most part, households in resettlement programs have been well-supported in terms of restoring their pre-tsunami positions. The majority have returned to their former livelihoods, while approximately a third have switched to alternative primary IGAs. In addition, several have diversified into additional subsidiary activities.

In terms of minimising disruption to household economies, the resettlement process has generally been well-managed. Households were relocated within or close to their former neighbourhoods, minimising disruption to livelihoods and social networks. For most households, relocation has not increased economic hardship: while there are some concerns regarding zoning regulations and market access for microenterprises within the new settlements, there has been little disruption to local labour markets, and fears that fishermen would lose access to their livelihoods have not materialised.

In terms of addressing pre-existing problems rather than simply restoring the *status quo*, interventions have been less successful. In one of the case study locations, the 'New Town' settlement in Hambantota, an extensive urban development and infrastructure program has broadened and deepened the range of livelihood options and provided a



strong basis for regional growth. Elsewhere, however, little attention has been given to improving infrastructure, encouraging labour mobility, addressing social and gender discrimination, investing in education and training and other reforms which are required to integrate coastal communities with national and regional development processes.

Labour force profiles in the case study locations were characteristic of low-income populations in developing countries, with a generally low education base, high reliance on the informal sector and gender imbalances in employment and earnings. However, there were marked differences between survey sites in occupational profiles and average household incomes, reflecting their diversity with respect to infrastructure, economic development, social inclusion and integration with regional and national markets.

In all locations there was an increase in livelihoods diversification, indicated by an expansion in the average number of income sources per household. However, access to secure poverty-clearing local IGAs remains insufficient. Employment growth has been concentrated at the low-value end of the income spectrum, in casual labouring work and marginal microenterprises, many of which are subsistence-based activities outside the cash economy. These IGAs are characterised by underemployment, job insecurity, low productivity, poor working conditions and below-poverty-line earnings.

The fisheries sector remains the largest single occupation, accounting for approximately a quarter of jobs in Chennai and Thirukkivil, and about 18 per cent in Hambantota's 'new town' and in Seenigama. With variations between locations, between a third and a half of the sample households derived their primary incomes from fisheries.

Certain high-earning activities such as skilled employment overseas, offshore fisheries, successful microenterprises and formal sector jobs were sufficient on their own to generate poverty-clearing incomes in Sri Lanka, although not in Chennai. In households which rely on unskilled informal sector activities, two, three or four income sources are typically needed to clear the poverty line. High poverty rates were found in female-headed households and in households where labour force participation was constrained by age or disability. As women are severely disadvantaged in the Sri Lankan and Indian labour markets, the presence of at least one able-bodied male adult is usually necessary to clear the poverty line.

Women are less likely than men to participate in the labour force, and median earnings from women's IGAs are 40 per cent lower than men's. Low-value self-employment ventures are usually operated by women (and were by far the largest sector of female employment), while higher-earning activities are nearly always operated by men.

Modernising the fisheries sector

In both Sri Lanka the tsunami caused massive damage to infrastructure and destroyed an estimated three quarters of the fishing fleet in affected areas, resulting in a sharp fall in output in 2005. Since then the fisheries sector has recovered strongly, returning to pre-tsunami levels by 2007.

In both Tamil Nadu and Sri Lanka there are serious concerns regarding the sustainability of the coastal fisheries sector in which the majority of fishermen work, with decreasing catches per boat, decreasing fish sizes and the disappearance of certain commonly harvested species. In Tamil Nadu, the coastal catch has exceeded the estimated maximum

sustainable yield since the early 1990s, and there are signs that over-exploitation has depleted some fish stocks to the extent that the natural recovery mechanism, which operates once fishing pressures are reduced, may no longer function properly. Strategies for strengthening the fisheries sector in both Sri Lanka and Tamil Nadu should include:

- *Develop offshore fisheries:* Offshore harvesting in territorial waters beyond the continental shelf—the fastest growing industry subsector—is generally held to be well within the sustainable range in both Sri Lanka and Tamil Nadu. Whereas the fibreglass boats used by coastal fishermen can be launched from unserviced beach sites, the larger ‘multi-day’ boats used in offshore fishing require more advanced landing infrastructure. In Hambantota ‘new town’ and in Seenigama, there has been some transfer of employment from coastal fishing into the more productive offshore sector following the construction of fisheries harbours nearby. There are at present no anchorages for multi-day boats in Ampara District, and lack of suitable docking facilities is a contributing factor in under-investment in offshore fisheries in the region. Other constraints on expansion of the offshore subsector include the generally poor quality of the multi-day boat fleet, use of outdated technologies and limited availability of finance.
- *Improve stock assessment processes:* Fisheries management for sustainability requires reliable information on stock sizes and dynamics, fishing effort and the impact of various fishing methods. At present, data collection in both India and Sri Lanka is inadequate for assessment purposes.
- *Improve control and compliance:* Fishing intensity and practices are poorly regulated and enforcement is weak, contributing to over-exploitation. There is a need to strengthen regulatory frameworks and improve institutional capabilities in control and surveillance.
- *Strengthen fishermen’s organisations:* Fishermen’s organisations can assist fishermen and fisheries management by strengthening fishermen’s bargaining power with buyers, providing a collective voice for articulating fishermen’s issues and problems, transmitting information, training and providing resources such as credit, and providing a mechanism for community-based regulation. As resource users, fishermen have an interest in promoting sustainable management, and with appropriate empowerment they can be effective stewards of local resources. However, many such organisations have small active membership bases and are subject to political interference, limiting their representativeness, effectiveness and impartiality.
- *Develop local ancillary industries:* There is little local investment in value-adding processes such as drying, freezing or canning.
- *Improve supply chain management;* Lack of adequate refrigeration onboard and at landing points contributes to high rates of spoilage and reduces fishermen’s bargaining power by compelling them to sell their catch as quickly as possible.

Facilitating local non-fisheries growth and labour mobility

Improvements in this area should include:

- *Improving infrastructure:* In rural Sri Lanka poor infrastructure is a key constraint to non-farm growth. In remote areas good road networks are particularly important in enabling access to employment in nearby towns and integrating rural microenterprises with non-local markets. Infrastructure deficiencies were present in varying degrees in all case study locations but were most pronounced in the Thirukkivil settlements, where household productive capacity was severely restricted by lack of mains power and water, and poor transport services limiting access to jobs and markets outside the immediate locality.

Manufacturing is a fast-growing sector in both India and Sri Lanka.

Regionalisation of manufacturing has significant potential for rural employment generation. In Sri Lanka, weak infrastructure has deterred large-scale private investment outside the metropolitan Western Province. In Hambantota, investment in infrastructure projects including a planned industrial zone linked to the port development is beginning to attract large industries and is projected to create 40,000 jobs over 5 to 10 years. Elsewhere, more needs to be done to create a strong regional investment climate, with particular attention to improving the quality of transport and power infrastructure.

- *Addressing social exclusion:* Low-income fishing communities—many of which occupied illegal squatter tenements in coastal exclusion zones—have traditionally experienced social marginalisation and discrimination. In Chennai, where most case study households are members of scheduled castes, social and economic discrimination restricts access to the opportunities offered by the large and rapidly growing urban economy.

Although the civil conflict has ended in Sri Lanka, ethnic and linguistic barriers persist. In Thirrukovil, the linguistic and ethnic divide—which separates Sri Lanka's Tamil-speaking northeast from the Sinhala-speaking southwest—restricts labour mobility outside Tamil-speaking areas. Moreover, tensions between Tamils and Muslims within the district restrict access to jobs and education in Muslim towns.

Women's economic opportunities are limited by social constraints on their mobility and the types of work they are allowed to do, a consistent finding across all locations.

- *Building human capital: education and vocational training:* Household heads in the settlement programs are below the national average in terms of educational attainment, restricting their access to opportunities outside the construction and fisheries sectors. Children and young adults have higher average educational attainment than their parents, a consistent finding across locations, although only a handful have post-secondary education. However, due to deficiencies in access to higher education and vocational training, lack of relevance and lack of human and physical resources in training institutions, most graduates lack skills needed for the modern workplace. While several NGOs in the case study locations were engaged in tuition programs in important vocational skills such as English language and computer training, these measures are not an adequate substitute for a strong inclusive public education system.

- *Business development services for local enterprises:* Microenterprises and small businesses face an array of non-financial operational constraints including a lack of capital, market information, business management skills and technical knowledge and innovation. They would benefit from appropriate financial services and technical assistance. Institutional support services should be based on a clear understanding of the market environment and rationed and targeted accordingly. Poorly-conceived interventions which have little regard for local conditions may generate an influx of new entrants into markets which are unable to support them, wasting resources and reducing the credibility of non-traditional livelihood options. Factors to be considered include the competitive environment, access to supplies and infrastructure, capital and skills inputs and, in the longer term, access to equipment repair and replacement facilities. Business development services should focus on the most capable entrepreneurs and businesses with poverty-clearing potential.

There is a need for gender sensitisation programs promoting poverty-clearing IGAs as acceptable roles for women, particularly for female household heads, and for business development services targeting women's enterprises.

Even though they may not facilitate poverty exit, very small microenterprises are of considerable importance at the margins of survival as they reduce vulnerability by supporting diversification and food security. While assistance for protectional IGAs is appropriate for low-income households, it is not sufficient and should be combined with other interventions.

Lack of access to finance is a major constraint on small business growth. Private commercial banks play a very limited role in lending to rural firms, and with the exception of Hambantota, microfinance programs have limited outreach in the case study locations. Since banks typically require land under freehold title as collateral, access to formal finance is restricted by tenure arrangements in the settlement programs which limit transfers of ownership.

- *Settlement planning and zoning:* Given the importance of the informal economy in developing countries, an understanding of the dual role of dwellings for shelter and livelihoods is a planning priority. Key livelihood issues in settlement planning include location of settlements with respect to transport networks, infrastructure and markets, and provision of shop and workshop space in new dwellings. Zoning regulations should take into account the needs of households for ready access to workplaces, and the positioning of workplaces for ready access to markets and suppliers.
- *Supporting overseas labour migration:* Contract work abroad is a high-earning livelihood option which plays an important role in the Sri Lankan rural economy as a source of income and investment capital. None of the Chennai respondents reported receiving migrant remittances, a finding which, given the marginalisation of the scheduled castes in Indian labour markets, may be linked to their limited access to the informal information and social networks that play an important role in facilitating migration. There is a need for a policy framework which addresses concerns regarding protection of workers abroad and the social and financial costs borne by migrants and their families, through improvements to consular services, more effective regulation of migration agents, better access to pre-departure finance, measures to encourage the productive use of remittances, and community support services for the families and especially the children of migrant workers.

Providing a social safety net

In both Sri Lanka and India, existing state transfer programs are poorly targeted and deliver meagre benefits. As informal sector workers lack effective social security mechanisms they are vulnerable to hardship resulting from illness and economic and environmental shocks. Lack of income protection causes significant hardship among older workers in the construction and fisheries sectors, where those aged over 45 face the prospect of reduced wages and unemployment due to the physically demanding nature of the work.

The traumatic effects of the tsunami were profound and long-lasting. Three to four years later, more than a quarter of respondents reported a reduction in income-generating capacity due to tsunami-related disabilities, but received no ongoing income support after the initial emergency relief phase. Most respondents have access to adequate treatment for their physical ailments, however psychological trauma, a widespread problem among tsunami survivors, often goes untreated due to the social stigmatisation of mental disorders and lack of treatment facilities.

Many female-headed households lack access to poverty-clearing IGAs. In the absence of social security transfers, households which lack income-generating capacity depend on assistance from neighbours and relatives who are often poor themselves.

Existing social insurance schemes should be reviewed with a view to creating better targeted programs that deliver substantial benefits to a few rather than negligible benefits to many. Options for contributory unemployment insurance schemes for informal sector workers should be investigated.

4. Tourism opportunities and challenges

Tourism has escalated internationally in recent years and now contributes an estimated 35 per cent of global exports of services. It is an especially important source of foreign exchange earnings for less developed countries (LDCs) and can play a key role in working towards the attainment of three of the Millennium Development Goals (Goals 1; 3; and 7). For this reason, even NGOs such as Tourism Concern—which lobby for ‘pro-poor and non-exploitative’ tourism development promote the economic potential of the sector.

As an ‘industry’, tourism is enormously diverse and can provide a wide range of employment opportunities in such areas as retailing, building and transport construction, hotels and restaurants, and handicraft production..However, barriers of various kinds frequently mean that many jobs are unavailable, or deemed unsuitable, to certain groups and individuals. These barriers include language, educational or skill deficiencies, geographic location or issues relating to poverty, caste, age and gender.

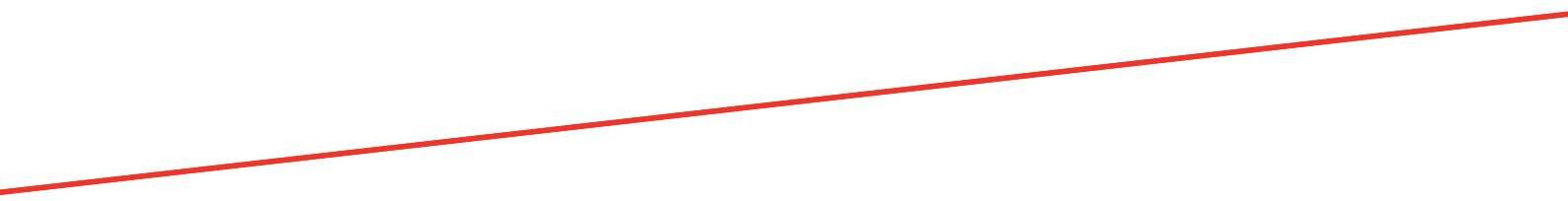
The report on post-tsunami tourism examines past and recent trends in tourism in Sri Lanka and Tamil Nadu, the impact of the 2004 tsunami and the internal conflict in Sri Lanka, and it assesses the extent to which tourism has offered—or indeed, could offer—post-tsunami employment opportunities. The report covers:

- the various forms that tourism can take;
- an analysis of its place in the Sri Lankan economy and its linkages with other policy arenas; and
- an attempt to identify the ‘winners’ and ‘losers’ from tourism-related developments.

The report builds on the expanding literature on tourism and disasters, as well as that linking tourism and development, ‘pro-poor tourism’, and tourism’s place in integrated coastal management. Even though the report is primarily a literature review, it also draws upon information collected by the author in the course of extensive interviews conducted with households re-housed after the tsunami in Seenigama (near Hikkaduwa), the Ampara District, Hambantota and in Chennai. Data collected by the Sri Lanka Department of Census and Statistics are also drawn upon, as is information gleaned from personal visits to hotels and related tourism establishments along the west, south and east coasts during the course of fieldwork in Sri Lanka and Tamil Nadu in 2007 and 2008.

By far the main focus here is on Sri Lanka rather than Tamil Nadu because tsunami impacts were more severe in Sri Lanka and yet the tourism sector is much more highly developed in Sri Lanka than in Tamil Nadu.

The study notes that the Sri Lankan government now places a very high emphasis on tourism promotion, as evidenced by the Tourism Act (2007), the 2009 National Strategy for Tourism, and the favoured treatment that the major hotel sector received—and continues to receive—following the tsunami. Asset replacement and an expansion for hotel interests—especially in Sri Lanka’s south and west—have occurred with extraordinary speed, often displacing traditional livelihood activities. Furthermore, the study identifies what appears to be the start of an entirely new chapter in Sri Lankan tourism based on luxury, integrated resort developments—effectively high-status enclaves—funded through arrangements with overseas consortia.



What is abundantly clear is that for long-term sustainability Sri Lanka needs to focus on building both resilient ecosystems and resilient (adaptive) communities along its coastline, as well as in the immediate hinterlands. The two needs are intimately connected. The looming threats from climate change in regard to coastal land use planning make this clear. As with planning for possible future tsunamis, this does not necessarily imply a total ban on building in the coastal zone, but it does involve careful consideration of the local onshore and offshore topography and vegetation, as well as attention to building standards and adequate disaster warning systems. It has become clear that excessive mangrove and reef destruction in the past contributed to much of the tsunami damage in Sri Lanka.

Many livelihoods, too, are utterly dependent upon being close to the sea and this has been a problem with the relocation of tsunami survivors to inland locations in places such as Hambantota's 'new town'. The 'sustainable livelihoods' literature emphasises the importance of the five forms of capital in building resilience. If one or more of these are absent, vulnerability increases exponentially. Resilient communities are those that have a diverse economic base and are not totally exposed when a disaster such as a tsunami strikes.

Potentially, tourism certainly has a role to play in building resilient communities, but not in the form embraced by current Sri Lankan government tourism planning. Large-scale, enclave resorts provide few income-generating opportunities for poor and marginalised households who invariably do not have the requisite language and educational background or other necessary forms of capital to benefit from such an 'industry'. There needs to be a renewed emphasis on evaluating developments against the criteria set down in the 2002 Cape Town Declaration on Responsible Tourism in Destinations (www.icrtourism.org/capetown). In particular, tourism development in Sri Lanka needs to be *inclusive* in offering opportunities to women and members of Tamil and Muslim communities as well as the Sinhalese majority.

This study seeks to draw out the implications of 'pro-poor' and low environmental impact tourism in regard to tourism development in Sri Lanka and Tamil Nadu.

First, there is near universal acknowledgment in the literature that the kind of tourism that works best for poor and marginal groups is that which is small-scale, often nature-based, and developed around locally-owned, controlled and resourced, microenterprises. A study of the Pinnawala Elephant Orphanage facility in Sri Lanka referred to such enterprises by the acronym NWBTR (nature/wildlife based tourism/recreation). This study highlighted the numerous economic 'spin-offs' that have been generated by the elephant orphanage since its inception, and there is little doubt that a similar model—based around different kinds of attractions such as national parks, pilgrimage sites etc.—could be replicated elsewhere in Sri Lanka.

The study highlights recent estimates of dramatic biodiversity decline—as assessed in the International Union for the Conservation of Nature's 'Red List'. Global biodiversity decline offers a unique challenge and opportunity for Sri Lanka to follow the lead of such countries as Costa Rica, Kenya and Tanzania and make nature-based, eco-tourism the central plank of its tourism strategy. The Sri Lankan Institute for Policy Studies has made a strong case for capitalising on the economic opportunities that exist in and adjacent to

such national parks as Yala, Udawalawe and Bundala. However, few of the Institute's 33 recommendations from a 1998 report have been acted upon.

More recently, a 2005 study on the challenges facing nature-based tourism in the Yala National Park concluded that the park is poorly maintained, while tourist numbers are far in excess of the facility's administrative capacity, and receipts from visitors largely go into consolidated revenue rather than being ploughed back into park management. The situation could also be improved by establishing microenterprises in the vicinity of facilities such as Yala, provided the new enterprises can benefit from some skills training and capacity development. Investment in such enterprises can be sourced from government, NGOs or even family members or money-lenders. However, a lack of entrepreneurial capacity is frequently a major stumbling block, especially in communities where there is a strong culture of welfare dependency.

Bridging the gap 'from poverty to enterprise' has been identified as a serious issue in Sri Lanka. The 'Palama Forum Theatre Project for Enterprise Culture' — which ran from 2005 to 2008 — was a landmark project seeking to shift people's attitudes towards entrepreneurialism. Emphasis was placed on financial assistance, job training for 'non-traditional' occupations and information dissemination. However, tourism development in Sri Lanka is currently constrained by poor infrastructure in regard to roads, water, electricity, etc. and little progress can be made without a substantial improvement in such fundamental infrastructure.

Several studies have focused in some detail on the opportunities that tourism potentially offers women in Sri Lanka, however, these often depend on providing assistance in regard to things such as language capacity and business training. Much of this assistance could come from local organisations and several studies have argued that 'village-level' collaboration is necessary in order to limit the 'leakage' of revenue from tourism to metropolitan centres.

The rare but excellent work of the Foundation of Goodness in Seenigama has provided the basis for a new form of tourism in Sri Lanka. While the Foundation has a wide range of programs aimed at delivering education and skills training to local people — especially the young — its headquarters provide comfortable accommodation for international visitors and volunteers. A handicraft shop enables visitors to buy goods made by local village women. The success of this venture suggests a form of tourism that might appeal to people who are keen to reduce global poverty.



5. Design and delivery of housing in resettlement programs

This report reviews the design and delivery of selected resettlement housing projects in Chennai, Seenigama, Hambantota and Thirukkovil.

The Chennai projects were designed and implemented by the Tamil Nadu Slum Clearance Board (TNSCB), a state government agency which conducted the resettlement process according to its standard pre-existing methodology for managing slum clearance programs, with minimal operational involvement from donors or other state and national government agencies.

Unlike Chennai, Sri Lanka had no pre-existing policy or institutional framework that could be readily adapted for the management of large-scale resettlement programs, and had to develop one from scratch. Moreover, the impact of the tsunami on social and economic infrastructure and government capacity was far more severe than in India. For these reasons, resettlement construction in Sri Lanka was primarily contracted to local and international donors, with the government retaining responsibility for policy development, coordination and supervision.

Tamil Nadu was unusual in having sufficient public sector capacity, expertise and institutional arrangements to enable the relatively smooth incorporation of post-emergency construction into its operations with little or no external support other than financial assistance. Far more typical of post-disaster developing countries is the situation in which Sri Lanka found itself requiring international assistance not only in funding but also in implementing a housing program. The most important lessons that our research generates relate to the challenges of devising appropriate policies, processes and coordination arrangements to deal with state and non-state actors working on an immense and unprecedented task in a problematic governance environment. The main focus of this report therefore is on the Sri Lankan experience, drawing where appropriate on the Indian case study.

Government and non-government agencies operated under trying circumstances and the challenges in such a context were many. There were some success stories, but in general, despite the presence of abundant international funds, the opportunity to develop a model process of sustainable, community-responsive planning and construction—offering lessons beyond the borders of these countries—was largely missed. In particular, the construction of houses—the key ingredient in the resettlement programs—the overall performance left considerable room for improvement.

Challenges arose from limited state capacity and endemic governance weaknesses which were escalated by the massive post-tsunami influx of resources and international agencies. The reconstruction process operated in a highly politicised context, hampering consistency and transparency in local program delivery and aid allocation, while at the central level, political factors were evident in significant regional disparities in resource distribution.

Tensions in the new working relationships between central and regional agencies and with the non-government sector were exacerbated by a lack of effective coordination and communication arrangements and a lack of clarity regarding the roles and responsibilities of the participating agencies.



Many international agencies lacked technical expertise, local knowledge and skill in managing their relations with the governments concerned.

Among the most important constraints were:

- The flawed buffer zone policy and uncertainty caused by subsequent revisions.
- Resource deficiencies in the public sector, limiting the oversight and supervision capacity of local government agencies.
- Selection of unsuitable implementing agencies.
- Poor coordination between government agencies and between the government and the aid community.
- A lack of transparency in the allocation of aid resources, leading to an oversupply of houses in some regions.
- Political interference and mismanagement in the allocation of housing.
- A severe shortage of technical skills among government agencies, implementing agencies and in the local construction industry.
- Pressure from the government, media and international funding bodies for quick results.
- Inappropriate and insufficient community consultation processes.
- Absence of mandatory requirements covering construction methods and materials.
- Construction cost escalation, resulting in part from industry skills shortages.
- Absence of agreed processes for transferring infrastructure and service responsibilities to local authorities.
- In most schemes, lack of attention to community development.
- In the Thirukkivil schemes, delays in infrastructure provision.

Recommendations

1. Improve development and coordination of policy on housing and post-disaster management within the central government with an emphasis on wide consultation, accessing the expertise of specialist and district agencies and where appropriate, international agencies. Build existing reservoirs of expertise such as the National Housing Development Authority and ensure its involvement in policy-making.
2. Establish a standing national disaster response capacity, including a steering committee comprising government and major development partners, and a central government agency with unambiguous authority and overall responsibility for coordinating housing reconstruction.
3. Support effective decentralised structures with appropriate delegations of budgets and responsibilities. Ensure local government agencies are equipped with adequate technical capacity and resources to carry out their roles. Improve staff calibre, re-introduce merit-based public sector recruitment, promotion and staff development.

4. In consultation with the aid community, establish clear disaster response guidelines, setting out the roles and responsibilities of all actors, including government and non-government agencies. Guidelines should include an explicit recognition of the importance of allowing sufficient time for beneficiary selection and community consultation.
5. Build data collection capacity. Establish effective, open access, data collection systems on housing needs and delivery. Promote transparency in resource allocation and provide a rigorous evidence base to support and justify policies and programs.
6. Establish a certification process for the selection of non-government implementing agencies.
7. Strengthen and broaden regional coordination mechanisms to ensure the involvement of all government and non-government actors. Regional coordination bodies should conduct regular assessments of the operating environment to anticipate, identify and act on policy and coordination gaps and operational or capacity constraints that may affect program delivery.
8. Establish an agreed and transparent registry of beneficiaries to minimise risks of corruption and political interference. Beneficiary selection should be a transparent tripartite process involving district-level government agencies, local communities and aid agencies.
9. Invest in capacity development in the construction industry by expanding access to formal technical training.
10. Non-government agencies embarking on housing resettlement programs should ensure they have sufficient staff and the right skills mix, including not only professional building expertise but also the management and interpersonal skills needed to interact with government agencies in a highly politicised environment and address policy and institutional constraints. Senior staff should be aware of the formal responsibilities of local, district and national government agencies and of key informal relationships between them.
11. Ensure close coordination between agencies responsible for housing and infrastructure delivery. Establish clear mechanisms for the transfer of infrastructure and maintenance responsibilities. Where necessary, ensure that local government agencies are adequately resourced to take on additional functions in new settlements.
12. Reconstruction programs offer opportunities for demonstrating good practice and building local capacity. However local capacity building should be viewed as a two-way process of synthesis of formal and informal knowledge streams. Housing design and construction technologies should be developed by educated professionals in partnership with local 'barefoot' professionals. In that way the knowledge would continue to be used in the community after agencies have left.
13. Reconstruction should not be viewed as a one-off process of only building houses and settling people in them. It has to be complemented with a long-term system of support for warranty, repair, maintenance, extension and remodelling. Agencies should be prepared to engage over a longer term as the process of settlement and adapting to new housing, especially in a newly developed area, can be protracted.

14. Housing reconstruction needs to be integrated with other community development strategies. Of particular relevance, as this study indicated, support for solid waste management and sanitation in the context of rapidly changing consumption patterns and increasing density of settlements is necessary. In general, after the housing and infrastructure has been constructed, it is necessary to facilitate community bonding and cohesiveness so that responsibility and ownership is developed for the scheme and its communal facilities.
15. A mechanism for ensuring good quality of construction has to be considered from the earliest stage of a reconstruction program. This can only be done through a thorough study of local construction practices, including both their strengths and weaknesses. Particular attention should be paid to any form of construction with concrete; mistakes can be permanent and it is easy to make mistakes in the absence of skilled supervision and monitoring.
16. Understanding and appreciation of local culture and traditional practices and patterns is essential to designing successful housing. The family, often in its extended or joint forms, is a key element in the culture of many developing countries such as Sri Lanka and India, and how the family manifests itself over space should be an important factor in housing design, layout and location.
17. It is important to pay attention to the orientation of houses and incorporate passive cooling and climate-responsive features in a context where air-conditioning is unaffordable. In any case these should be promoted in the current situation of global climate change.
18. As much as possible, unimaginative barrack-type layouts and the one-size-fits-all approach to housing design should not be followed. It is understandable that post-disaster reconstruction demands quick results and detailed design requires time. However, once a settlement and housing has been built, it is too late to make changes and people have to live there over a long term and face problems. Therefore, it is worth investing time for good design at the expense of delayed outputs as it pays over the long run. Governments, policymakers and the media need to be made aware of this.
19. In the event that resources and time are limited, 'core houses' should be built in such a way that there is provision for making extensions. In hazard-prone areas, if it cannot be ensured that future extensions by occupants would be hazard-resistant, the 'core house' should be built to hazard-resistant standards so that it can serve as safe shelter during disasters.
20. Disasters should be used as opportunities to build back better and to demonstrate hazard-resistant construction in a context of recurring hazards. Houses that withstand hazards provide a tangible and visible demonstration of disaster preparation, and allow the promotion of safe building practices.
21. During reconstruction, it is important to address and overcome the underlying vulnerabilities that had previously prevented safe house construction and the risks that threaten durability and sustainability of housing. Building housing back to a better standard that is less vulnerable to context-specific hazards can contribute to reduced risks in the long-term. Reconstructed or rehabilitated housing with future risk in mind can prove more sustainable.

22. A mode in between donor-driven and completely owner-driven housing reconstruction might allow the best results. Allowing control of the house building process to be in the hands of the occupant while providing technical support for design, supervision and construction management facilitates effective partnership and teamwork, occupant satisfaction and achieving good quality construction to professional standards.
23. Implementing agencies ensure where possible that relatives and former neighbours are co-located.
24. Given that a functioning informal land market exists in the settlements, consider allocating freehold title upon occupancy. This will push land prices closer to market values and enable the use of property as collateral.
25. Ensure that women are included as joint title holders in the case of married couples, and sole title holders in the case of female-headed households.



