

# Addressing Land Ownership after Natural Disasters

An Agency Survey

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## Land and natural disasters

Natural disasters like hurricanes, tsunamis and earthquakes damage and destroy land vital to peoples' livelihoods. They kill titleholders, destroy land records and erase boundaries. To compound the problem, the location of refugee camps, the relocation of affected communities and measures to increase future resilience such as no-construction zones are fraught with tensions and difficulties.

The changing climate is making extreme weather events more frequent. Meanwhile population growth is pushing more people into marginal land vulnerable to storm surges, landslides and flooding. The inevitable result is that more natural disasters are affecting more people and more land. As a consequence humanitarian relief agencies are responding to more, and bigger, natural disasters than ever before.

It is widely acknowledged that determining and redistributing land ownership<sup>1</sup> promptly and equitably after natural disasters is an important step in the transition from short-term humanitarian relief to the long-term reconstruction of livelihoods and communities. However, there is little consistency between the approaches of different humanitarian relief agencies. Some prefer to leave the issue to national governments, while others get deeply involved mapping previous ownership and demarcating new boundaries.



Coastal wreckage, Mt Lavinia, Sri Lanka

At IISD we believe there is a need for a clearer understanding of the tools and strategies relief agencies have at their disposal to address these issues. As a first step towards this objective, in April and May of 2006 we devised a short survey and circulated it widely among humanitarian and development professionals, commentators and academics involved with disaster management and mitigation. We wanted to gauge the importance that is attached to land issues in natural disasters and to draw out some of the lessons from years of experience dealing with emergency response, rehabilitation and reconstruction.<sup>2</sup>

The survey consisted of four sets of questions. The first asked at what stage in the 'natural disaster cycle' humanitarian and development agency staff felt land ownership was most important: before a disaster strikes, in the immediate aftermath of a disaster, or as the country and communities rebuild homes and livelihoods. We then asked how effectively our

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<sup>1</sup> By *land ownership* (or tenure) we are referring to the ownership, whether formally or customarily defined, of people over land and its associated natural resources (water, trees, minerals, wildlife, etc.). Rules of tenure define how property rights in land are allocated in society. Land tenure systems determine who can use what resources for how long, and under what conditions.

<sup>2</sup> Interviewed organisations: UN ISDR; UN Habitat; UN BCPR; CARE International; the World Bank; Oxfam; the Technical Centre for Agriculture and Rural Cooperation; Tufts University; Columbia University; the Humanitarian Accountability Project; CHF International; Concern; Plan International; and private consultants. 20 respondents participated in the survey. Many thanks to Katherine Landry, Christina Sander and Hank Venema for invaluable assistance with the inquiry.

respondents felt their own organizations understood and dealt with the land issues that arise from natural disasters. The third set of questions tried to pin down what barriers exist to resolving land issues equitably after natural disaster. The final set of questions asked where different responsibilities for dealing with land issues should lie – with government, humanitarian relief agencies, development agencies, the private sector or civil society.

This short report represents the collated findings of our research. It does not pretend to be statistically watertight but does hope to raise some of the issues and dilemmas that humanitarian relief agencies face on a daily basis in disaster affected areas.

## 1. When is land ownership an issue?

### The importance of land to resilience to natural disasters



Our respondents felt that land ownership was a very important element in the resilience of communities to natural disasters, giving it an average score of 4.5 on a scale of importance from 1 to 5.

Clearly defined and equitable land rights may help to improve planning in areas vulnerable to natural disasters. They can encourage landowners to invest in windbreaks, better home construction and flood barriers, and provide the necessary collateral to make such investments. After all, people are much more likely to invest in their land if they are confident those investments will remain with them and that they can pass them on to their children. Likewise, personal or collective ownership may help to reduce the environmental degradation that increases vulnerability to natural disaster.

On the other hand insecure, inequitable and opaque land tenure systems lead many to live in marginal, hazard-prone areas without the infrastructure required to withstand the natural threats dictated by geography and climate.<sup>3</sup> The marginal lands typically settled by low-income communities are rarely surveyed and integrated into disaster risk assessments. For example, much of the damage caused by the cyclone that hit India’s Orissa coast in 1999 occurred in the extensively-deforested new settlement areas along the region’s shoreline, as the storm surge ripped through a 100-km long denuded stretch, killing thousands within minutes. According to local reports, illegal Bangladeshi immigrants had been encouraged to settle in the affected area by vote-seeking politicians. During the construction of their homes, they destroyed sand dunes, mangrove and *casuarina* forests, stripping away traditional barriers to storm surges and high winds.

This is not to suggest that privatised land tenure is to only way to promote resilience; such tenure arrangements can in fact increase vulnerability. For example, one respondent warned that in pastoral or livestock-dependent communities, creating individual forms of land

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<sup>3</sup> [“Reducing Vulnerability to Natural Disasters”](#), Inter-American Development Bank, May 1999.

ownership can undermine community resilience should individual plots cherry-pick the best land from larger rangelands.<sup>4</sup>

**Box 1 : Divi Seema Cyclone, India, 1977**

In 1977 the island of Divi Seema in the Krishna River delta of India was hit by a strong cyclone which left 10,000 dead. The vulnerability of the victims can largely be attributed to the patterns of land ownership, resource access and rights of the island’s inhabitants. In the years leading up to the cyclone, the majority of the island was controlled by rich landowners who, following the irrigation of the island’s arable inland, bought up the land as absentee landlords. This pushed the marginalized and poor inhabitants from the interior to the coast. In turn the influx of inhabitants to the coast led to increased fishing activities and the destruction of important mangrove buffer areas.

Recognizing the problem, the government drew up a plan to transfer large tracts of land to these poor communities. However, the plan was never realized as funding fell short when the beneficiaries could not obtain credit from the banks for land development due to a lack of collateral resources. With banks continuing to lend only to those with collateral, the poor were forced to use moneylenders, which further indebted them through their exorbitant interest rates. Economically and physically vulnerable, these poor communities had few defences against the cyclone when it struck.<sup>5</sup>

**The importance of land to humanitarian relief**

1      2      **3.1**      4      5

Our respondents generally felt that land issues were less important during the initial ‘water, food and blankets’ phase of humanitarian relief and attached an average score of 3.1.

Respondents agreed that the priority in the short-term has to be keeping people alive but that ‘you can only ignore the [land] issue for so long’. One interviewee noted that development agencies typically concerned with land ownership issues are usually told to ‘go away and come back when we’re done here’ by the relief agencies. There was the strong feeling that there is a serious gap between humanitarian relief and long-term development that impedes recovery and reconstruction. It is clear that the sooner people can return to their land in a safe environment and with the right tools to rebuild, the sooner they can move away from dependency on humanitarian hand-outs and life in a refugee camp.

Many respondents argued that while development agencies shouldn’t necessarily be the first on the scene, they should be involved within the first few weeks to smooth the transition from relief to recovery. Further to this point another interviewee commented that relief and development should not be seen as distinct phases, but are rather points along a continuum of engagement with communities that have been affected by natural disaster. In fact, the

<sup>4</sup> Delaney et al., “[Weathering Natural Disasters – Refocusing Relief and Development through Improved Agriculture and Environmental Practices](#)”, Future Harvest, June 2004, p.26.

<sup>5</sup> Drawn from Winchester, P. “Cyclone Mitigation, Resource Allocation and Post-Disaster Reconstruction in South India: Lessons from Two Decades of Research”, ODI, 2000.

most sustainable response may be from organisations that are engaged in both relief and development and so are better able to make the transition from one to the other.

Several respondents noted that people without secure land ownership often refuse to move away from their land or houses for fear they could lose these assets while in a refugee camp. This was the case after both the 2003 Bam and 2005 Kashmir earthquakes. In Northern Pakistan, an estimated 70,000 people stayed in their devastated and remote mountain villages to protect their property until the winter snow made the areas nearly impassable before descending to the winter refugee camps.<sup>6</sup>

Managers of refugee camps also need to be informed of local land ownership and traditional mechanisms for resolving disputes. In relief camps, for example, assigning individual private lots to groups accustomed to communally-held property rights can be very problematic. Additionally, locating camps on private land can alienate the local population and heighten the demand for locally scarce resources.

Finally, there is the danger that the displacement of large numbers of people without clearly defined land ownership can enable private and government 'land grabs' (see Box 2 below). Ossie Fernandes of the Chennai-based Human Rights Advocacy and Research Foundation reported after the Asian tsunami that, "there is a very real threat that people are trying to take over land re-zoned as buffer zones. They fear that the Tamil Nadu government, in collaboration with multilateral agencies, is using the disaster to plan to redevelop the area in favour of tourism".<sup>7</sup>

**Box 2 : Post-Tsunami Land Tenure in Thailand: The Mokan**

For the *Mokan*, or "Sea Gypsy" community of Thailand, the Indian Ocean tsunami exposed their country's fragile land tenure system. For decades, this community lived on state-owned or private coastal lands. While vague squatter laws gave the *Mokan* some legal claim over the area they inhabited,<sup>8</sup> some land developers hoping to capitalize on Thailand's tourism boom have been trying to remove *Mokan* villages to clear land for tourist resorts. The tsunami accelerated this process.

In Phang Nga the people of Ba Tung Wah village simply moved back to where their houses once stood and began rebuilding without waiting for government approval. Instead, they were told that the land that had once been theirs was now to be used for a hospital funded by the German Embassy in Bangkok. Ultimately, an agreement was made to share the land, allocating the villagers two-thirds of their original land on a long-term collective lease, while still allowing for the building of the hospital.<sup>9</sup>

<sup>6</sup> UNICEF and World Food Programme

<sup>7</sup> "After the Deluge: India's Reconstruction Following the 2004 Tsunami." Human Rights Watch, 17:3; May 2005. p.40.

<sup>8</sup> ACHR Survivors' Dialogue. [ACHR report](#)

<sup>9</sup> *ibid.*

## The importance of land to long-term reconstruction of livelihoods and communities

1      2      3      **4.6**      5

On average, our respondents attributed slightly greater importance to this area as to the resilience of communities to natural disasters (4.6 out of 5).

Recovering and protecting communal and private property rights can lay a solid foundation for reconstruction, spatial planning, compensation and long-term economic regeneration. As Bill Clinton noted after the Asian tsunami, “I can think of nothing that will generate more income over the long run for average families in this region than actually having title to the land they own”.<sup>10</sup>

Governmental and humanitarian agencies attempting to address land ownership after natural disasters face daunting challenges (see Box 3). The destruction of records (e.g., land titles, identity cards, insurance claims, taxation maps, civil status records and business records) can lead to conflicting or spurious claims. Rory Mungoven, senior human rights advisor to the UN Country Team in Sri Lanka, argues that, “the first step is to ensure people are able to recover their basic documentation, such as identity cards, and get death certificates issued for the purposes of inheritance”.<sup>11</sup>

Property identification is further complicated by the disappearance of boundaries and reference marks (i.e. trees, fences and walls). These losses, along with the different and at times conflicting types of law under which claims may fall—be it formal, customary or religious—can hamper the ability of authorities to address land issues swiftly. But speed is necessary, as there is often an urgent need to address these issues before clean-up operations destroy the few physical indicators of land ownership which remain.

Respondents agreed that clarity over private and communal land ownership is key to the effective reconstruction of disaster-affected regions. A lack of proper land-use planning can delay reconstruction, perpetuate disaster vulnerability and create tensions between those competing for scarce resources. Being able to prove land ownership can provide the necessary collateral to secure credit for reconstruction, and is crucial to benefiting from any compensation packages that may be offered by the government.. Importantly, it was also noted that having a ‘sense of home’ is a important element of dealing with post-disaster trauma for families and communities.

The Asian tsunami covered large areas in mud, debris and salt water; destroying crops and damaging agricultural land. Some coastal and riverside land simply disappeared – either washed away or shifted by tectonic activity.<sup>12</sup> According to the Food and Agriculture Organisation of the United Nations (FAO), 64,232 hectares of agricultural land were

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<sup>10</sup> Aceh, May 23 2005, cited in World Bank, “Rebuilding a Better Aceh and Nias”, 2005, p.38.

<sup>11</sup> Ahamed, Farah Mihar, “[Human Rights Concerns Come to the Fore in Post-Tsunami Relief Agenda](#)”, Respect, OHCHR, 2005, p.4.

<sup>12</sup> World Bank, “Rebuilding a Better Aceh and Nias”, 2005, p.11.

damaged in the affected countries.<sup>13</sup> For many families and communities the tsunami left them few alternatives but to move—a situation faced by thousands in recent years following Hurricane Mitch and Tropical Storm Jeanne. An immediate concern for affected communities is to recover their land (or find new land) and rebuild their livelihoods.

In Aceh only 5-10 per cent of all land was registered with the National Land Registry (BPN) in Jakarta. Most land ownership was either in the form of traditional land or communal land, obtained through inheritance or certified by the local police or sales certificates. Reconstruction was complicated by Indonesian law which only recognises land registered with the BPN. This meant that until ownership was clarified neither the Indonesian government nor foreign aid organizations were willing to build permanent houses.<sup>14</sup>

If communities rebuild on land to which they have weak legal claim the land may later be taken away—leaving them worse off than before. As one respondent noted, if government, humanitarian and development agencies are not aware of (or ignore) such local land ownership systems they risk increasing disaster vulnerability.

Natural disasters tend to cause large population movements. The influx of relocated families—by circumstance, choice or government decree—to previously settled areas naturally increases the local demand for resources. It can also lead to tension and discrimination. In India after the tsunami, there was real concern about a potential outbreak of violence between fisherman and Dalits (untouchable caste) who suddenly became neighbours.<sup>15</sup> The Dalit communities feared that these resettled fishing communities would not want to live close to them and would use their greater political clout to push them out of the region.<sup>16</sup>

In early 2005 some governments in South and Southeast Asia proposed creating coastal buffer zones in which no reconstruction would be permitted. The idea was to move coastal communities to reduce casualties in the event of a future tsunami. The Sri Lankan government, for example, wanted to establish a restricted area of between 100-300m from the coastline.<sup>17</sup> This would have required the relocation of over 118,000 houses and ran the risk of increasing tensions between resettled and existing communities. The plan was eventually shelved due to local protest.<sup>18</sup>

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<sup>13</sup> Oxfam, “Back to work: How people are recovering their livelihoods 12 months after the tsunami”, Oxfam briefing paper, December 2005, p. 5

<sup>14</sup> Schulze, Kirsten, “Between Conflict and Peace: Tsunami Aid and Reconstruction in Aceh”, 2005, London School of Economics, p. 22-3

<sup>15</sup> “After the Deluge: India’s Reconstruction Following the 2004 Tsunami.” Human Rights Watch, 17:3; May 2005, p.29.

<sup>16</sup> “After the Deluge: India’s Reconstruction Following the 2004 Tsunami.” Human Rights Watch, 17:3; May 2005, p.29.

<sup>17</sup> Atapattu, Sithara. “[Tsunami Impacts on Coastal Ecosystems of Southern Sri Lanka](#)”, 2005, p.9.

<sup>18</sup> TAFREN, “Rebuilding Sri Lanka Action Plan”, 2005, p.106.



### Box 3 : The Asian Tsunami

*“When I saw my land after the tsunami, I felt like someone had died.”*

Ganesh, a farmer, Annai Koil village, southern India, 19 May 2005<sup>19</sup>

While the final death toll of the Asian tsunami will never be known, official estimates indicate that at least 181,000 people perished and 1.6 million were left homeless or displaced.<sup>20</sup> According to UNEP, coastal ecosystems were destroyed throughout the region; debris was dragged from the land into the ocean and vice versa, standing crops were ruined just before harvest, and soils became brackish from salinization. Wells were contaminated, irrigation systems damaged and septic tanks spilled toxic materials into fields.<sup>21</sup> This had the cumulative effect of temporarily halting agricultural in the coastal regions and increasing the scarcity of valuable resources in a way that will have profound implications for local livelihoods in future.

Regional examples provide a glimpse into the scale of the disaster. Coastal communities in India, primarily fishing villages, bore the brunt of the damage; 230,000 homes in 1,089 villages were damaged or destroyed. 35,000 livestock were killed, 22,000 hectares of cropland damaged, and 83,000 fishing boats damaged or lost.<sup>22</sup>

Damage to the government infrastructure and documentation was widespread. In Aceh and North Sumatra, the National Land Agency lost more 40 staff and six of its offices. Ten per cent of land books were lost, while most of the remaining records required urgent conservation and restoration to save the data. Almost all taxation (cadastral) maps were lost.

All told 300,000 land parcels were affected in Aceh and North Sumatra – 170,000 urban and 130,000 rural of which it is estimated that only 60,000 were titled.<sup>23</sup> This problem is also evident in Sri Lanka as well, where it is estimated that 90% of the people whose houses were destroyed lost all of their legal and property documentation.<sup>24</sup> This significantly complicates reconstruction and rehabilitation efforts, as is it difficult to identify rightful land owners and users in the absence of documentary proof.

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<sup>19</sup> Oxfam, “Back to work: How people are recovering their livelihoods 12 months after the tsunami”, Oxfam briefing paper, December 2005, p. 4

<sup>20</sup> Oxfam, 2005, p. 2

<sup>21</sup> UNEP, “After the Tsunami: Rapid Environmental Assessment”, 2005, p.11.

<sup>22</sup> “After the Deluge: India’s Reconstruction Following the 2004 Tsunami.” Human Rights Watch, 17:3; May 2005, p.6.

<sup>23</sup> World Bank, “Rebuilding a Better Aceh and Nias”, 2005, p.xvi.

<sup>24</sup> Ahamed, Farah Mihlar, “[Human Rights Concerns Come to the Fore in Post-Tsunami Relief Agenda](#)”, Respect, OHCHR, 2005, p.4.

## Do natural disasters provide an opportunity for different and potentially more sustainable systems of land ownership?

1      2      **3.1**      4      5

Inherently, natural disasters are a tremendous external shock. They disrupt the normal pattern of life and change the ways people make their living. They can also prompt a fundamental re-evaluation of how a community uses its resources. Some argue that natural disasters present a ‘window of opportunity’ for the introduction of new, more sustainable ways to manage those resources.<sup>25</sup>

Respondents were starkly divided on whether humanitarian and development organisations should try to use this ‘policy space’ to push more sustainable land ownership systems. Some respondents argued that this is, in effect, a dangerous form of ‘social engineering’ conducted at a time when communities are least able to participate in or affect the process. Moreover, aid agencies are not necessarily well positioned to approach some of these complex policy issues when they are also rushing to provide appropriate life-saving support to victims. Focusing time and resources on such issues in the midst of a crisis, they argue, can cause costly delays with serious humanitarian consequences.

Others noted that how humanitarian relief is distributed and how development agencies help reconstruct communities have great significance for their future vulnerability, economic development and environmental sustainability. They argued that humanitarian and development agencies have to be aware of land issues throughout the initial and longer-term response to natural disasters, whether deciding where to locate refugee camps (which may evolve into formalised settlements), reconstructing homes or investing in measures to increase resilience to future disaster (such as levees or storm drainage systems).

Reconstruction plans can have dramatic impacts on communities. An extreme example of this is the town of Balakot, which was devastated by the 2005 Kashmir earthquake. Recognising that Balakot lies on a double fault line the Earthquake Reconstruction and Rehabilitation Authority of the Pakistani government decided to move the entire town to the nearby, and geologically secure, location of Bikryal.<sup>26</sup>

### **Box 4: Mexico City earthquake September 1985**

The Mexico City earthquake of September 1985 left 900,000 people with damaged homes and 2.5 million people completely homeless. The massive reconstruction effort faced two choices: to relocate the affected population or to rebuild settlements within their existing neighbourhoods. The latter was chosen as the most cost effective solution and preferable to socially disruptive reconstruction on the city’s edge.

<sup>25</sup> Moench, M. and A. Dixit. 2004. *Adaptive Capacity and Livelihood Resilience: Adaptive Strategies for Responding to Floods and Droughts in South Asia*. Boulder, CO: The Institute for Social and Environmental Transition, International, p.18.

<sup>26</sup> “ERRA to reconstruct Balakot on a more secure site”, 12 May 2006 (accessed 12 June 2006, [http://www.brecorder.com/earthquake.php?latest\\_id=651](http://www.brecorder.com/earthquake.php?latest_id=651))

**Box 4: (cont.)**

The reconstruction project, funded in part by the World Bank, rehoused 78,000 families who had previously rented in owner-occupied apartments. Tenants became owners, and they were included in the planning and design process as their destroyed rental units were rebuilt. Communities were kept together, the reconstructed houses were more earthquake resilient and overall vulnerability to future earthquakes was reduced.<sup>27</sup>

## 2. How do you think your organization does?

	<i>Does not describe</i>		<i>Describes well</i>		
	1	2	3	4	5
Cost effective	22%	0%	11%	22%	44%
Rapid	25%	13%	13%	25%	25%
Integrated into disasters management plans	40%	0%	20%	10%	30%
Coordinated with other agencies	17%	8%	25%	33%	17%
Involving local communities	9%	0%	18%	27%	45%
Informed by knowledge of underlying vulnerabilities	8%	8%	33%	8%	42%

Again, as the table shows, respondents were deeply divided in their estimations of their own agencies' capacity to deal with land issues. Some felt their organization was generally effective while others held less favourable views of their agencies responsiveness and cost-effectiveness. However, a common theme was that there is a gulf between the rhetoric of dealing with land issues and the more messy realities of dealing with the economic and political practicalities of land ownership.

A couple of respondents made the point that the solutions currently offered by many humanitarian or development agencies are too complicated and over-engineered for the practical needs of affected communities. For example, the sophisticated analysis of land boundaries involving satellite mapping, exhaustive surveying and detailed 'triangulation' of land ownership can take months and delay reconstruction when simple community mapping can achieve largely the same results in a matter of days.

Others took the opposing view, noting that resolving land issues takes (and deserves) time. They point out that flexibility is also a key attribute—responses have to relate to the

<sup>27</sup> World Bank, "[Disaster Recovery: Past Experience](#)", Operations Evaluation Department.

situation at hand as any one organization cannot be completely prepared for all contingencies. There was the feeling that there is a real need for more accountability and more collaboration between organizations. There's also a need to make data more available to practitioners on the ground. One way to do this is through more effective networking and data dissemination.

### 3. What gets in the way of resolving land ownership equitably?

The extent to which respondents saw the following as potential barriers to the equitable resolution of land tenure issues:

	<i>Not a barrier</i>		<i>A significant barrier</i>		
	1	2	3	4	5
Political interference/bias	7%	7%	0%	57%	29%
Lack of government capacity/political inertia	7%	0%	7%	43%	43%
The activities of private companies	14%	14%	29%	43%	0%
Lack of information/poor data/mapping capacity	7%	7%	29%	29%	29%
Conflicting responsibilities/lack of coordination between government and relief agencies	7%	7%	43%	29%	14%
Conflicting responsibilities/lack of coordination between different relief agencies	8%	23%	46%	15%	8%
Lack of infrastructure/administration capacity	8%	15%	31%	31%	15%
Lack of appropriate mechanisms to resolve disputes (community based or legal systems)	0%	7%	29%	29%	36%
Societal discrimination (caste, gender, age)	7%	14%	21%	29%	29%
Conflicting rights (e.g. between communally and privately held land rights)	0%	8%	17%	33%	42%

## 4. Who should do what?

### Responsibilities of Government

Governments need to play a central role in resolving land ownership after natural disasters. Their first task is to restore law, order and basic services. The government must begin rebuilding the land administration system (if damaged) and restoring documentation and land boundaries. They must also play an informational role to tell the affected population of their legal rights and obligations. Some respondents suggested that governments should give more support to community mapping exercises and traditional mechanisms for dispute resolution, which could include providing training and technical assistance. Once community consensus has been reached, the government can formalize the land titles. For any response to be effective and sustainable, respondents stressed that it must be carried out in a transparent, timely and equitable manner.

#### **Box 5 : Federal assistance after Hurricane Katrina**

In late August 2005, Hurricane Katrina flooded wide areas of the Mississippi Delta region of the United States, most notably New Orleans, affecting some 2.5 million people. The area most heavily affected by Hurricane Katrina had a lower than average proportion of homeowners (55% compared to a national average of 66%).

Aid and reconstruction work since the hurricane has been largely the responsibility of federal agencies, such as U.S. Federal Emergency Management Agency (FEMA) and the U.S. Department of Homeland Security. Through FEMA, more than 700,000 households have received apartment rental assistance under FEMA's Individuals and Households Assistance Program (\$1.7 billion committed). Other federal assistance is enabling homebuyers and homeowners with damaged or destroyed homes to finance, through a single mortgage, both the purchase and/or refinancing of their house and the cost of its rehabilitation. This programme encourages lenders to make mortgages available to residents of disadvantaged neighbourhoods and to borrowers who would not otherwise qualify for conventional loans on affordable terms.

### Responsibilities of humanitarian agencies

Respondents generally felt that humanitarian agencies have less of a role to play than governments. Some argued that relief agencies should concentrate on the immediate emergency needs of the affected population, while others believed that during the initial weeks of recovery, humanitarian agencies can play an important role beyond providing relief.

First, humanitarian agencies can report to the government the locations of affected communities—where people have been killed, injured or dispossessed. This helps coordinate immediate relief and informs future decisions about ways to reduce community vulnerability. Second, humanitarian agencies should work with development agencies and the government to better coordinate their efforts and to close the gap which between short-term relief and long-term reconstruction. By identifying land issues early on, relief efforts may be more effective (as in Kashmir, when a lack of land and property advice in the relief phase discouraged people from leaving their vulnerable positions in destroyed villages for fear of losing their land).

## Responsibilities of development agencies

Development agencies have an important role to play in the recovery process: advising government on land redistribution; purchasing privately held land for distribution to replace lost or unusable land; helping to set up land dispute resolution mechanisms; and conducting risk and vulnerability assessments for post-disaster land use planning. Recent examples in post-tsunami Aceh include:

- The European Commission provided high-resolution satellite images of affected coastlines to help the governments in their reconstruction planning, as well as providing on-site technical assistance and training to turn these images into maps for use in reconstruction and early warning planning.<sup>28</sup>
- AusAID helped re-establish property boundaries for more than 15,000 individual parcels of land in Aceh, and trained 75 land mappers to accelerate the community-led mapping process.<sup>29</sup>
- The World Bank and JICA (Japan International Cooperation Agency) helped to repair and digitally reproduce land register books, cadastral indexes and land parcel plans relating to the statutory land claims in Aceh, which account for 25 per cent of the province's land (the rest is held under customary ownership).<sup>30</sup>
- UNDP trained more than 750 community-driven adjudication facilitators, bought surveying equipment, and supported the website and internet communications of BPN (the Indonesian National Land Agency). It has also funded the publication of information brochures on property rights.<sup>31</sup>

The question of timing is key - but also divisive. Some respondents argued that development agencies should appeal for more time and not rush towards 'quick fixes', while others recognized that the slow pace of government reconstruction and land re-allocation can lead to frustration and prolonged suffering.

### **Box 6 : The Multi-Donor Trust Fund and Property Rights in Indonesia**

The Multi-Donor Trust Fund for Aceh and North Sumatra (MDTFANS) was established to pool and disburse aid resources to rehabilitate the areas affected by the tsunami in Indonesia. Administered by the World Bank and funded by a collection of governments and international organizations, the MDTFANS recognized early on the pressing need to untangle and resolve land ownership in post-tsunami Indonesia. "These were poor communities. Most houses had no legal title, and those that did have been lost. There are no property maps. Many of the people who lived there have been lost. In such a situation where do you begin?", asks Andrew Steer, the World Bank's Country Director for Indonesia.<sup>32</sup>

<sup>28</sup> "[The EU's Contribution to the international response to the 2004 Asian tsunami](#)", Discussion Paper, DFID/EC, December 2005.

<sup>29</sup> "[Australia's Response to the Indian Ocean tsunami](#)", AusAID, 30 November 2005.

<sup>30</sup> Fitzpatrick, D. "[Restoring and Confirming Rights to Land in Tsunami-Affected Aceh](#)", UNDP/Oxfam, July 2005.

<sup>31</sup> World Bank, "Aceh and Nias One Year After the Tsunami", Joint Report of the BRR and International Partners, December 2005.

<sup>32</sup> World Bank, "[Tsunami Recovery: Rebuilding Aceh](#)", May 10 2005.

**Box 6: (cont.)**

In an attempt to address this issue, the MDTFANS approved a US\$28 million project to be undertaken by the National Land Agency (BPN) in Banda Aceh, which will work toward protecting land rights and to rebuild the land administration system.<sup>33</sup> The project involves supporting community-driven adjudication, surveying and mapping to re-issue title deeds, reconstructing and reequipping damaged land offices and training for National Land Agency staff. In addition, the project will establish a computerized back-up system for land data and set up a transparent process of dispute resolution for the settlement of land conflicts.

**Responsibilities of the private sector**

While many expressed concern over the actions of the private sector in post-disaster settings (primarily through the threat of land grabs), business can contribute to effective reconstruction in a variety of ways. It can meet community needs for land surveys, mapping and other forms of technical assistance. Businesses can also refrain from buying up land immediately following the event; in the weeks following the Asian tsunami, opportunistic beachfront tourist developments presented a real threat to the livelihoods of fishing communities throughout the affected region.

**Responsibilities of civil society**

Respondents believed that NGOs and community groups should play an important role in addressing land tenure issues following a disaster. They can facilitate community mapping exercises and monitor the process to ensure consensus and fairness; contribute financially and morally to the rebuilding of land tenure systems; advocate for the housing and land rights of vulnerable groups and disseminate information on those rights; and monitor post-disaster living conditions to identify past and continuing vulnerabilities.

**Box 7 : Addressing Land Tenure in Post-Tsunami Indonesia<sup>34</sup>**

The confusion surrounding land tenure and resource rights in the Aceh and Northern Sumatra provinces of Indonesia led to the recognition that community-driven solutions were required to allocate land equitably. With the help of NGOs, community-mapping exercises can help produce a basic understanding of land ownership in the area. These basic reference sketches can be digitized using GPS equipment and reviewed for community acceptance (albeit not titles – only the BPN can issue those). Once the community has reached agreement on the land ownership and the position of the land parcels, BPN is called in to survey the area, finalize ownership (and allow for complaints), and then issue titles.

<sup>33</sup> The National Land Agency. “Proposal for Recovery of Property Rights and the Reconstruction of Land Administration System”, 2005.

<sup>34</sup> World Bank, “Rebuilding a Better Aceh and Nias,” 2005, pp.40-41.

**For more information:**

**[Natural Disasters and Resource Rights - Building resilience, rebuilding lives](#)**

Oli Brown, Alec Crawford, Anne Hammill, IISD, 2006.

*Natural disasters damage and destroy the land, sea and forest resources vital to peoples' livelihoods. Where resource rights are clearly defined, equitable and verifiable, poor and marginalized communities are better equipped to survive disasters and recover after them. This paper discusses the role of resource rights in pre-disaster resilience and post-disaster reconstruction.*

([http://www.iisd.org/pdf/2006/tas\\_natres\\_disasters.pdf](http://www.iisd.org/pdf/2006/tas_natres_disasters.pdf))

**[Restoring and Confirming Rights to Land in Tsunami-Affected Aceh](#)**

Dr. Daniel Fitzpatrick, UNDP/Oxfam, July 2005

*The study addresses two urgent issues: the need for sufficient tenure security to support housing reconstruction and land allocation; and the need to minimise land grabbing and other land-related forms of conflict. Cross-cutting issues taken into account include: international standards for sustainable return and restitution of land rights, re-location proposals and obligations of due process and compensation, the role of land consolidation, spatial planning and future tsunami protection measures, protection of the rights of vulnerable groups (particularly women and children), and options for improved institutional coordination.*