PART 1

RECONSTRUCTION TASKS AND HOW TO UNDERTAKE THEM
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SECTION 1
ASSESSING DAMAGE
AND DEFINING
RECONSTRUCTION
POLICY
Guiding Principles

1  A good reconstruction policy helps reactivate communities and empowers people to rebuild their housing, their lives, and their livelihoods.
2  Reconstruction begins the day of the disaster.
3  Community members should be partners in policy making and leaders of local implementation.
4  Reconstruction policy and plans should be financially realistic but ambitious with respect to disaster risk reduction.
5  Institutions matter and coordination among them improves outcomes.
6  Reconstruction is an opportunity to plan for the future and to conserve the past.
7  Relocation disrupts lives and should be kept to a minimum.
8  Civil society and the private sector are important parts of the solution.
9  Assessment and monitoring can improve reconstruction outcomes.
10  To contribute to long-term development, reconstruction must be sustainable.

The last word: Every reconstruction project is unique.
Introduction

Reconstruction of housing and communities following a disaster is a continuous process that begins immediately after the disaster, and often lasts for years. It is important to understand how affected populations and institutions will react after a disaster, and what roles and responsibilities stakeholders will take on throughout the post-disaster reconstruction process, so that institutions and affected populations can work in a coordinated and complementary way to accomplish their desired outcomes.

At the beginning of the response to a disaster, humanitarian agencies, including the United Nations (UN), are ordinarily the organizations that are most in contact with government, conducting initial assessments, mobilizing aid, and discussing options for how the recovery will be organized. The World Bank and other international financial institutions (IFIs), including regional development banks, may not be directly involved and may not commit resources this early in the process. However, it is essential that these organizations enter the process as soon as possible, especially so that they can be present during the early strategic planning with government that is normally led by the UN and other humanitarian agencies, since—as discussed in this chapter—that planning will influence the entire reconstruction process.

The post-disaster reconstruction process almost always takes much longer than expected or planned. Except in life-threatening situations, compromises that ignore the need for integration, or for quality, safety, or good governance of the reconstruction, should not be made with the belief that they will save time. Time is rarely saved, and people will live for years with the consequences of those decisions.

This chapter introduces the context and process of reconstruction following natural disasters, referring to the guiding principles established at the beginning of this handbook, as well as to other handbook chapters. It offers guidance on assisting the entire affected population, both those who are displaced and those who are not displaced.

The chapter discusses such issues as the need to integrate housing and community reconstruction, the sequence of activities that reconstruction entails both for individuals and agencies, the roles and responsibilities of stakeholders and mechanisms of coordination, and the risk of losing continuity between the immediate response and long-term development and reconstruction.

Achieving People-Centered, Integrated Reconstruction

Post-disaster reconstruction is a complex process involving a number of interrelated activities. The level of complexity will vary, depending on the scale and nature of the disaster and the corresponding response of the population and the institutions involved. Like most humanitarian and development activities, the process tends to entail a cycle: assessment, planning, project development, implementation, and monitoring. Different project cycles are likely to be occurring simultaneously at different levels and for different purposes wherever people are organizing some element of the response. It can’t be emphasized strongly enough that the affected population should be at the center of the reconstruction process and should have a preferential right to make the decisions that will affect their lives. In one increasingly accepted vision of how post-disaster reconstruction should work (which the authors generally subscribe to), government’s first job after a disaster, with the help of humanitarian and development agencies, is to determine what the community wants to do and is capable of doing. The government should then do the rest.

This Chapter Is Especially Useful For:
- Policy makers
- Project managers
- Lead disaster agency
- Humanitarian agencies

1. What this handbook calls “housing and communities” is referred to by other names as well, including “shelter and settlements” and “housing and habitats.” The meanings of these phrases are essentially identical, and they all seek to acknowledge that reconstruction entails not simply rebuilding a physical structure—the house—but restoring the entire social, economic, natural, and cultural environment in which the house and household was or will be located.
This may be an oversimplification of a very complex process; however, adopting this approach means that there are two overriding project cycles that are set in motion after a disaster: the one for the community’s work and the one for government’s work. Government has to conduct the macro-level assessments, set policy, coordinate nongovernmental organizations (NGOs) and humanitarian agencies who will support recovery, engage IFIs and other funders, organize the financing mechanisms, ensure all affected communities have adequate support, and so on. The community has its own work to do: assess its local needs, identify vulnerable members, salvage materials, develop a community-level plan, agree on housing designs and immediate infrastructure improvements, reconstruct its governance system, and plan how to manage reconstruction funds once they are available.

An integrated approach to reconstruction is one that harmonizes these efforts, simultaneously addressing both what needs to be done (with respect to land use, reconstruction approach, environmental management, infrastructure rehabilitation, choice of housing design and technology, and cultural and natural heritage conservation, for example) and how it will be done (including institutional roles, levels of citizen participation, and management of project financing). Each chapter in Part 2 of this handbook, Reconstruction Tasks and How to Undertake Them, covers one of these elements.

**The Steps in Response and Reconstruction**

The experience from recent disasters shows that common steps are generally followed by government to organize a large disaster response, as shown below. Steps where the affected population is likely to be involved are marked with *.

<table>
<thead>
<tr>
<th>Activity in response timeline</th>
<th>Description of activity</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Coordination*</td>
<td>Development and maintenance of a coordination mechanism</td>
<td>From the disaster event through the end of reconstruction</td>
</tr>
<tr>
<td>2. Engagement*</td>
<td>Collaboration with stakeholders</td>
<td>From the disaster event through the end of reconstruction</td>
</tr>
<tr>
<td>3. Initial assessment*</td>
<td>Gathering of initial information and evaluation of local capacities</td>
<td>Week 1 following the disaster</td>
</tr>
<tr>
<td>4. Outline strategy*</td>
<td>Developing a framework for cooperation (see description below)</td>
<td>Week 1 following the disaster</td>
</tr>
<tr>
<td>5. Rapid appeal</td>
<td>First call for funding</td>
<td>Week 1 following the disaster</td>
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<tr>
<td>6. Emergency relief distribution</td>
<td>Coordinating emergency distribution based on the initial assessment activity</td>
<td>Throughout month 1</td>
</tr>
<tr>
<td>7. Program- and project-level work plan*</td>
<td>Specific shelter programs and projects</td>
<td>Periodic, starting in week 2</td>
</tr>
<tr>
<td>8. Program- and project-level implementation*</td>
<td>Implementation of the work plans based on work plan</td>
<td>Beginning week 2 through the end of reconstruction</td>
</tr>
<tr>
<td>9. Joint rapid needs assessment (such as Post-Disaster Needs Assessment [PDNA])*</td>
<td>Formally coordinated assessment based on initial assessment (see Chapter 2, Assessing Damage and Setting Reconstruction Policy, for a discussion of various assessment methodologies)</td>
<td>First 4-6 weeks</td>
</tr>
<tr>
<td>10. Full policy or strategy*</td>
<td>Detailed strategy built on outline strategy (see Chapter 2, Assessing Damage and Setting Reconstruction Policy, for a discussion of the parameters of a reconstruction policy)</td>
<td>First 4-6 weeks</td>
</tr>
<tr>
<td>11. Revised appeal</td>
<td>Further detailed calls for funding based on rapid needs assessment</td>
<td>First 4-6 weeks</td>
</tr>
<tr>
<td>12. Detailed assessments (generally sector-specific)*</td>
<td>Formally coordinated assessments building on rapid needs assessment (see Chapter 2, Assessing Damage and Setting Reconstruction Policy, for a discussion of various assessment methodologies)</td>
<td>Periodic, throughout reconstruction</td>
</tr>
<tr>
<td>13. Revised policy or strategy*</td>
<td>Revision of strategy based on detailed assessments</td>
<td>Periodic, throughout reconstruction</td>
</tr>
<tr>
<td>14. Public financing and additional appeals</td>
<td>Arrangement of multilateral and bilateral loans and grants, and ongoing humanitarian appeals</td>
<td>Periodic, throughout reconstruction</td>
</tr>
<tr>
<td>15. Achievement of agreed goals*</td>
<td>Completion of benchmarks set with government and communities in the strategies</td>
<td>End of reconstruction</td>
</tr>
</tbody>
</table>

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By understanding and recognizing these common steps, different stakeholders can ensure better cooperation and coordination, which in turn will support a more consistent and efficient response that better meets the needs of the affected population.

Who Does What? Stakeholder Roles and Responsibilities

Following a major disaster, government frequently seeks external support, initially from the humanitarian community and later from IFIs, such as the World Bank. These same institutions are also involved in an increasing number of smaller-scale disasters, albeit in different ways. It is essential that these stakeholders work together in post-disaster reconstruction and that each understand the capacities, roles, responsibilities, and contributions of the others. Some specific efforts to improve coordination are mentioned in Chapter 14, International, National, and Local Partnerships in Reconstruction.

The Affected Population

People affected by a disaster are not victims; they are the first responders during an emergency and the most critical partners in reconstruction, undertaking the majority of work on their own recovery, without governmental, humanitarian, or IFI support. A good reconstruction strategy is one that focuses on empowering communities, families, and individuals to rebuild their housing, their lives, and their livelihoods. To make this work, community members should be partners in policy making and leaders of local implementation. They may need support to play these roles.

Real representation of the affected communities in the policy-making body and in all aspects of recovery is a must. At the same time, it is crucial that agencies do not succumb to the misconception that the affected population is a single entity, ignoring differences in needs and capacities. Communities are composed of numerous social and economic groups, each with its own characteristics, vulnerabilities, and ability to influence outcomes.

Key points about populations affected by disasters (with reference to the handbook’s Guiding Principles [GPs]) include the following.

- People affected by a disaster need to secure shelter and rebuild their livelihoods. Infrastructure such as roads, schools, and power generation is as fundamental to recovery and livelihoods as housing is. Also important is the rebuilding of the sense of community and of social capital. Responses should reflect an understanding that reconstruction is not only about shelters and homes but also about reconstructing entire communities. (GP 1)
- People affected must have shelter during the time in which reconstruction takes place. While a tent, for example, only lasts a year, other transitional shelter options can be employed that last until permanent housing is available. (GP 2)
- For people who have not been displaced, reconstruction begins almost immediately, usually with the recovery of materials to recycle in building their shelter. (GP 2)
- People’s expectations regarding the time frame for reconstruction are often overly optimistic; reconstruction and recovery will probably take a number of years. (GP 4)
- Some people will be displaced by the disaster and others won’t be, and the ways to help these two groups may differ. At the same time, people may not wish to return to their pre-disaster circumstances, depending on changes in their lives and in their livelihoods.
- Some social groups are more vulnerable than others. The most vulnerable, poorest, and hardest to reach members of society are usually those most affected and most in need. Gender and age are also determining factors when assessing vulnerability.

Government

Central government is always responsible and accountable for managing a disaster response and for establishing policy to guide the reconstruction program. This does not mean government will do everything, but it does mean that defining a strategy that establishes “who will do what and how” is a governmental responsibility. Government, however, is not a monolith; it consists of different branches; public entities with different levels of autonomy; and usually different levels, e.g., central, state, provincial, local. Even if government’s management capacity is adequate under normal circumstances, it can be overwhelmed immediately following a disaster, especially at the local level. These realities must be taken into account in developing the response and in defining the reconstruction policy. See Chapter 2, Assessing Damage and Setting Reconstruction Policy, for a discussion of the parameters of a reconstruction policy.
Dilemmas of Reconstruction

The most complex tasks for recovery managers are to determine and to implement the appropriate approach to reconstruction of buildings and infrastructure. Considerations include the wider political context, the operational requirements, and the expectations and preferences of the people most affected. Reconstruction poses many demands and dilemmas for officials. These include whether to emphasize short-term basic reconstruction needs or longer-term needs to reduce risk, whether to engage the affected population in rebuilding their own houses with technical guidance or engage professional building contractors to do the work, and whether reconstruction should be carried out in the original, disaster-prone location, or relocated to a new and possibly less vulnerable location.

Another important dilemma concerns the stages of shelter to employ before reaching permanent reconstruction. Experience demonstrates that it is generally better to avoid the process of building substantial temporary dwellings. Dialogue with the public may help identify more viable, and locally suited, immediate post-disaster shelter options. Without some intermediate step, extraordinary measures may be needed to accelerate the construction of permanent residential buildings.

None of these questions have easy answers, and much depends on the views of government officials responsible for the recovery process, relative to those of local people who will finally determine by their acceptance or rejection the success of any official decisions that are made.


In certain situations, especially after a large-scale emergency, government may establish a dedicated organization or taskforce to coordinate, reinforce, or in some cases temporarily replace the responsibilities of line ministries. The taskforce can sometimes better coordinate tasks among ministries and departments. The taskforce is usually created for a specific period of time and will return responsibilities to the relevant line ministries, either gradually or when specific objectives are met. For a detailed discussion of these options, see Chapter 13, Institutional Options for Reconstruction Management.

The National Military

The national military can sometimes be an effective partner in housing reconstruction. It may be able to quickly carry out initial rebuilding of bridges and essential infrastructure, and generally has better and faster logistics capability than any governmental entity, including rapid assessment capabilities and excellent communications. The military may maintain large stockpiles of goods and may be able to deliver materials even when roads are impassible by others. The military may also have high levels of local support, and can add a sense of security and order to early recovery.

There can also be challenges with military involvement. In some countries, the cost of the military’s support is high and it may get charged against assistance budgets. The military is not always used to operating in the complex, multi-stakeholder environment of a disaster recovery situation, and may have little experience in listening to community concerns or accepting civil authority. Having the military run camps is usually not an appropriate long-term strategy, although the military’s assistance in setting up these camps and their infrastructure can be crucial. Also, the military is generally not experienced in coordinating housing recovery and reconstruction, although there are notable exceptions, such as after the 2004 North Pakistan earthquake, where the military coordinated certain aspects of the inspection system for housing reconstruction. Lastly, where there is a prevalence of NGOs involved in reconstruction, conflicts may arise between the NGO culture (especially that of NGOs with pacifist origins) and the culture of the military.

The Humanitarian Community

Coordination of the response is the responsibility of government; however, support is often offered by the humanitarian community. Government usually establishes coordination mechanisms, and the humanitarian community, led by the Resident Representative or Humanitarian Coordinator assigned by the UN, often implements those mechanisms. A sector coordination team may involve information managers and technical specialists. There are two kinds of mechanisms used to establish coordination:

- Pre-agreed frameworks, such as those set up in contingency plans by government or the UN through the Inter-Agency Standing Committee (IASC) clusters system; and
- Ad hoc frameworks, such as those set up by government, the UN, other agencies, or communities at the national or local level when contingency plans do not exist and the cluster system is considered inappropriate.

Coordination within the humanitarian community has recently been reformed through the IASC and the creation of its 11 “clusters,” such as for “Emergency Shelter” and “Early Recovery,” which together constitute a framework of responsibilities at both global and response levels. UN agencies, international organizations, and the International Federation of the Red Cross and Red Crescent (IFRC) take the lead role in each cluster, with a series of partner agencies, representing other UN agencies, international organizations, and NGOs, supporting each cluster. Although this framework is intended to prevent overlaps and gaps in responsibility, operational coordination at the response level for reconstruction has not yet been clarified. A more detailed description of the cluster system, including a list of the cluster leads, is found in Chapter 14, International, National, and Local Partnerships in Reconstruction.
**United Nations agencies.** In most countries, the UN maintains its own presence and that of the United Nations Development Programme (UNDP), under a Resident Representative. In large emergencies, the UN may expand its capacity by including a Humanitarian Coordinator, while agencies like the United Nations Children’s Fund (UNICEF) and the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) may also establish offices or increase capacity. Immediately following a disaster, a specifically mandated UN team often arrives to support coordination and assessment. The UN and the humanitarian community will agree together on a coordination structure and commitments as providers of last resort, in support of government.

Under the cluster system, UNDP works with government to coordinate “Early Recovery” activities following a disaster, including conducting a PDNA and developing an Early Recovery Framework. Assessments are discussed in Chapter 2, Assessing Damage and Setting Reconstruction Policy.

**The Red Cross Movement and international organizations.** Under the cluster system, the IFRC coordinates the activities of the Emergency Shelter Cluster following a disaster; although these responsibilities may be handed over to UN partners, such as the United Nations Human Settlements Programme (UN-HABITAT) and UNDP, for reconstruction and early recovery. For a detailed description of how the Emergency Shelter Cluster is mobilized following a disaster, see Chapter 14, International, National, and Local Partnerships in Reconstruction.

**National and international NGOs.** A number of national and international NGOs increase capacity after a disaster, offering—a long with the IFRC and other international organizations—support for implementation of response and reconstruction programs. Additional NGOs without an established presence in the country often arrive in the days immediately after a disaster and may, or may not, maintain a presence until reconstruction is completed. (See Mind the Gap, below.) NGOs often play a major role in facilitating the activities of communities or in serving as executing agencies for all funding sources.

**Bilateral and Multilateral Donor Organizations**

Technical and nontechnical representatives of bilateral donor organizations, such as the United States Agency for International Development (USAID) (directly or through the Office of U.S. Foreign Disaster Assistance [OFDA]) and the UK Department for International Development (DFID), and of multilateral donor organizations, such as the Organisation for Economic Co-operation and Development (OECD)-Development Cooperation Directorate (DCD), UNDP, and the World Food Programme (WFP), often arrive almost immediately following a disaster; participating in coordination structures from the outset of the response. These agencies can be important partners with IFIs in reconstruction. In some policy areas, bilateral agencies, working alone and in partnership, have also successfully taken the lead in developing, analyzing, and promoting post-disaster best practices.³

**IFIs: The World Bank and Regional Development Banks**

IFIs traditionally became involved in reconstruction after a number of months. However, this time frame is changing, and many IFIs now become involved in the early stages of a response. The resources and mechanisms offered by IFIs are also evolving, in order to support a diversity of responses. For a description of World Bank mechanisms, see Chapter 20, World Bank Response to Crises and Emergencies.

**Defining the Outline Strategy**

Agreeing on a common strategy with government is key to ensuring that early decisions make a positive contribution to the longer-term reconstruction process, recognizing that reconstruction usually begins right away. In the absence of a common strategy, agencies that enter later in the process may be unaware or even discount the value of agreements made before they arrived; this is especially easy for larger agencies to do.

An outline strategy must be agreed to within the first weeks of the disaster for stakeholders to collaborate effectively and manage the needs of the affected population. It is generally developed by

³ Many examples of recent analytical work by bilateral and multilateral organizations are listed in the Resources sections throughout this handbook.
government and the lead disaster agency, in collaboration with affected communities and with the support of humanitarian agencies. This strategy is then reviewed and updated regularly as new and more detailed assessment information becomes available, until a full policy or strategy is defined, as described in #10 in the “The Steps in Response and Reconstruction” table, above. See Chapter 2, Assessing Damage and Setting Reconstruction Policy, for a description of the assessment process and the content of a housing and community reconstruction policy.

Reconstruction strategies are agreed to on a response-by-response basis. Within the humanitarian community, certain topics are commonly included in strategy documents. The same themes are common in situation reports (“sireps”) and funding proposals. Terminology will vary and additional topics are often included. The common elements of a reconstruction outline strategy include (1) introduction and context analysis, (2) goals (or strategic objectives), (3) needs assessment, (4) priorities for the sector, (5) activities, (6) projected outputs and outcomes, (7) projected impact (also called indicators), (8) intersector linkages, (9) timeline, and (10) resources.

While humanitarian agencies are likely to take the lead in helping government articulate the outline strategy, IFI participation (or, at a minimum, IFI review and revision of the strategy) is essential if IFI financing is expected to be utilized in reconstruction. It is only through early involvement that IFI knowledge and policy perspectives can be incorporated in early decisions.

**Urban versus Rural Disasters**

Disaster response and recovery in urban areas will be of larger scale, more concentrated, and more complex than in rural areas. Almost every aspect of reconstruction must be tailored to urban reality. Rural disaster programs pose their own unique problems. A disaster that has affected both urban and rural areas can be especially challenging to plan and execute.

Factors that influence the reconstruction approach in urban areas include:

- Higher population density and the resettlement options available to displaced persons
- More informal housing, much of it located in high-risk areas
- More multi-family housing and a larger proportion of renters
- Ownership and titling issues may require legal procedures to resolve
- More and generally more capable public sector organizations, including those responsible for disaster management, but often not used to working together
- Potential for disaster risk reduction (DRR) measures to be based on planning and regulation
- Higher income levels and living standards of the affected population, potentially requiring more generous assistance strategies
- Higher land values and less undeveloped land
- Unique and more challenging environmental risks
- Higher value and more infrastructure investments
- More complex social structures that are likely to give rise to conflicts and to complicate participation in reconstruction planning
- More clearly defined economic and social interests and more sophisticated political organizations
- Economic effects from the urban disaster that affect the rest of the country

Factors that influence the reconstruction approach in rural areas include:

- Lower land values
- Ownership and titling issues that can sometimes be resolved through negotiation
- The major role that the social structure plays in the dynamics of reconstruction
- The relative ease with which community participation can be achieved
- A higher sense of ownership
- The lack of institutional capacity for planning and regulation
- Housing that is usually designed and built by owners themselves or by masons, so DRR measures should be based on building awareness and on training construction workers

The differences between planning processes in urban and rural areas are discussed in more detail in Chapter 7, Land Use and Physical Planning. The case study on the 2003 Bam earthquake, below, describes the differential approach to reconstruction taken in urban and rural areas of Iran.
The Options Facing Displaced and Non-Displaced Populations

The process that people and households go through after a disaster to stabilize their housing situation can be quite lengthy, convoluted, and complex. People affected by the same disaster will be affected differently and will respond differently. Some will begin reconstruction of their partially damaged housing in the first days after the disaster, while others will be displaced for a period of time, even finding their situation changing from week to week for many months or even years. It is not uncommon that households affected by a disaster never again attain the level of prosperity and security they had before the event.

It is important to understand the range of options people face and not to impose artificial “phases” on diverse situations. These phases are sometimes more indicative of the bureaucratic practices and capacities of the agencies involved in response and reconstruction than they are of the priorities of the affected population. For example, in some past responses, support for reconstruction began only months after a disaster, after the affected populations themselves began rebuilding, because some agencies believed that reconstruction did not contribute to humanitarian objectives, or even distracted from them.

The following twelve options—six for displaced populations and six for non-displaced populations—are often used by the humanitarian community.

### The Six Options for Displaced Populations

People displaced from their original location have different sheltering options that are important to consider in planning and implementing reconstruction programs. The six options for displaced populations are listed and described below.

<table>
<thead>
<tr>
<th>Settlement option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host families</td>
<td>The displaced are sheltered within the households of local families, or on land or in properties owned by them.</td>
</tr>
<tr>
<td>Urban self-settlement</td>
<td>The displaced settle in an urban area, occupying available public or private property or land.</td>
</tr>
<tr>
<td>Rural self-settlement</td>
<td>The displaced settle in a rural area, occupying available public or private property or land.</td>
</tr>
<tr>
<td>Collective centers</td>
<td>The displaced shelter in collective centers, or mass shelters, often transitory facilities housed in pre-existing structures.</td>
</tr>
<tr>
<td>Self-settled camps</td>
<td>The displaced settle independently in camps, often without services and infrastructure.</td>
</tr>
<tr>
<td>Planned camps</td>
<td>The displaced settle in purposely-built sites, where services and infrastructure are offered by government or the humanitarian community.</td>
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</tbody>
</table>

Following disasters, it is imperative to minimize the distance and duration of displacement, while keeping safety in mind. This allows people to better maintain their livelihoods and allows households to protect their land, property, and possessions. The displacement typology should not be perceived as describing a phase of resettlement, but instead as describing subcategories of the affected population. Displacement can continue long after post-disaster risks have receded, due to (1) the inability of households to document their property rights, which may be a prerequisite to reconstruction; (2) inappropriate reconstruction strategies, such as one that ignores the variety of needs within the affected population; or (3) the lack of resources and capacities of government and agencies to assist the displaced population.


For access to additional resources and information on this topic, please visit the handbook Web site at www.housingreconstruction.org.
The Six Options for Non-Displaced Populations

Households that were not displaced or that have returned also will be found in diverse situations, especially in urban areas, where the proportion of tenants to owner-occupiers often exceeds 50 percent. Although the situation and context vary greatly from disaster to disaster, six options to describe the status of non-displaced populations are generally accepted within the humanitarian community.5

<table>
<thead>
<tr>
<th>Settlement option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>House owner-occupant</td>
<td>The occupant owns his/her house and land, or is part-owner, such as when repaying a mortgage or a loan. Ownership may be formal or informal.</td>
</tr>
<tr>
<td>House tenant</td>
<td>The occupant rents the house and land, formally or informally.</td>
</tr>
<tr>
<td>Apartment owner-occupant</td>
<td>The occupant owns his/her apartment. Ownership may be formal or informal.</td>
</tr>
<tr>
<td>Apartment tenant</td>
<td>The occupant rents the apartment, formally or informally.</td>
</tr>
<tr>
<td>Land tenant</td>
<td>The occupant owns the house, and rents the land, formally or informally.</td>
</tr>
<tr>
<td>Occupancy with no legal status</td>
<td>The occupant occupies land or property without the explicit permission of the owner. Also called informal settlers.</td>
</tr>
</tbody>
</table>

Before the disaster, an affected household belonged to one of the categories listed above. After the disaster, it may move through one or more of the options for displaced or non-displaced population, and will eventually cycle back to one of the categories listed above. For example, the owners of an urban house that is badly damaged (house owner-occupant) may temporarily camp in another part of town (urban self-settlement), but eventually decide to resettle by buying an urban apartment (apartment owner-occupant). The number of paths through these options is almost infinite.

The ultimate goal of housing reconstruction is to ensure that all those affected by a disaster, whether they have been displaced or not, are eventually situated in a “durable solution.” If transitional resettlement has relocated a significant percent of the population away from the affected area, an effort may be required to ascertain how many plan to return, so that the housing need is not overestimated. If reconstruction begins spontaneously and is being carried out in a way that creates unacceptable risks, the reconstruction strategy may need to compensate families for work already done in order to enlist their collaboration in improving the safety of construction.

The implementation of the housing and community reconstruction policy must incorporate and equitably support the needs of those in all categories. See Chapter 4, Who Gets a House? The Social Dimension of Housing Reconstruction, and Chapter 6, Reconstruction Approaches, to see how these categories can be used when defining the assistance strategy.

Resolving property rights issues often needs to be a high priority at the beginning of reconstruction programs, requiring considerable capacity from national and international stakeholders. See Chapter 7, Land Use and Physical Planning, for a list of strategies to address property rights issues and case studies of good practice.

The Transitional Shelter Approach

The transitional shelter approach can be used with both displaced and non-displaced populations.6 Transitional shelter is not a phase of reconstruction, but is a philosophy that recognizes that reconstruction usually takes years to complete and that shelter is required throughout this period. The transitional shelter approach responds to the fact that post-disaster reconstruction can take a significant amount of time and that it is the affected population that does most of it.

Transitional shelter is used to house affected households with habitable, covered living space and a secure, healthy living environment with privacy and dignity during the period between a natural disaster and the availability of a permanent shelter solution. Communities have differing capacities to cope until permanent reconstruction is completed. The decision to employ transitional shelter should be made in consultation with the affected populations, keeping in mind that the preference for transitional shelter may be community-specific.
Transitional shelter provides incremental support from the moment recovery begins, and gives households mobility and autonomy. Advocates seek also to coordinate all shelter efforts from immediately after the disaster. It is distinct from temporary shelter (which is occupied immediately after a disaster and understood to be time-limited), in that it offers shelter on-site until the completion of reconstruction for those not displaced or throughout the displacement period for those displaced. Transitional shelter shares some characteristics with what is called “semi-permanent shelter,” but, because it is generally moveable, may provide more flexibility as conditions change after the disaster and during the reconstruction period. For an example of an ambitious temporary shelter program, see the case study on the temporary housing built following the 2009 L’Aquila, Italy earthquake, below.

**Strengths of Transitional Shelter Programs**

There are several potential advantages with transitional shelter as an assistance method from the point of view of executing agencies, including the following.

1. Transitional shelter programs can be implemented by humanitarian organizations without experience in transitional settlement or reconstruction. While the initial cost is similar to some traditional temporary solutions, such as tents, the operating costs may be significantly lower (compared to running a camp, for example).
2. Because the designs almost always use local materials, the resources that are spent in construction circulate in the local economy and help jump-start supply chains needed for the reconstruction phase, possibly reducing the need for purchasing and warehousing of building materials by agencies.
3. Production of shelters can start the process of educating builders and the public on hazard-resistant construction principles and techniques, which will later be employed in reconstruction.
4. The designs are sufficiently flexible to accommodate differences in family size, location, culture, and availability of materials.

Transitional shelter can be advantageous for the affected population as well, for the following reasons.

1. If transitional shelters are sufficiently durable to last until the completion of reconstruction, which may take a number of months or even years, the need for multiple moves by a family between the disaster and the completion of reconstruction is reduced.
2. Transitional shelters—being mobile, flexible, and under the control of the family—permit households to quickly return to the site where they have land rights or tenure, once it is deemed safe, allowing them to protect whatever assets still remain, to begin on-site reconstruction, to reestablish their livelihoods, and to preserve social networks.
3. The best designs allow the household to upgrade or incorporate the shelter into permanent reconstruction (for instance, as an extra room or a storage area), or permit the reuse of the majority of materials in permanent reconstruction.

The case study below, on reconstruction following the 2005 North Pakistan earthquake demonstrates how transitional shelter materials can be reused in permanent housing.

With respect to design, transitional shelters can usually be constructed quickly, with simple tools and local, relatively low-skilled labor, including that of the family itself. While designed for local materials and construction techniques, transitional shelter designs should also reflect agreed-upon standards that provide adequate safety and protection to the users. Often, the materials for transitional shelters are assembled and distributed as kits, which is helpful for affected families who may need to transport them. In fact, transitional shelter is designed to be disassembled and relocated. This may be advantageous if there are delays in the resolution of land rights or tenure, households can’t return immediately to their land (until floodwaters recede, for example), decisions are pending as to whether a household must be resettled, or on-site reconstruction progresses to the point where the transitional shelter is in the way.

**Weaknesses of Transitional Shelter Programs**

There are risks and challenges involved in using transitional shelter as an assistance method, including the following.

1. A transitional shelter strategy does not exempt government from addressing the need for water, sanitation, and electricity at the sites where families locate their shelters. This may require providing interim services, such as water delivery and storage and latrines, until infrastructure and services are permanently restored.
2. Some families’ land rights may not be readily resolved, leaving families settled indefinitely occupying the land where their transitional shelter is located, but with no legal status.
3. Government may become complacent with the transitional shelter solution and offer no other support, especially if resources for reconstruction fall short during the “transitional” period.
4. Even if local materials are used, production of the shelters may overtax supply channels, driving up prices or extending production times.
5. The transitional shelters may themselves represent a risk, especially if there is insufficient experience among those implementing the program. Units may be poorly constructed or fabricated of unsafe materials, unsafely sited, or located in areas with insufficient basic services.

The case study, below, on the 2004 Indian Ocean tsunami reconstruction in Indonesia summarizes the findings of a transitional shelter program evaluation that showed that the positive economic impact of transitional shelter declined if it was occupied for too long.

**International Experience**

Transitional shelter is a rapidly evolving area of humanitarian assistance. Extensive technical resources are available and best practices continue to accumulate. Some knowledgeable organizations are listed in the Resources section of this chapter. Additional resources are available from the handbook Web site, http://www.housingreconstruction.org.

**Unequal Distribution of Resources within the Post-Disaster Cycle**

Viewing disaster management from a distance, one might think that each phase of the disaster cycle receives equal resources; this is not the case. The normal pattern in major disasters is for emergency response and relief to receive the overwhelming share of human, material, and financial resources. This can lead to funding shortfalls for reconstruction in certain regions or sectors over time and to bad decisions as agencies (including government) attempt to accelerate reconstruction, without sufficient planning, while resources for relief are still plentiful.

In addition, when resources are insufficient for reconstruction, funds for preventive and disaster risk reduction (DRR) measures may be severely constrained, so vulnerability is just built back. Overloading response and relief with resources, while short-changing DRR, is a serious reconstruction pitfall. Government must work with its funders to resolve this dilemma. The case study on the 1963 Skopje reconstruction, below, recounts how temporary housing was occupied for so long after the earthquake it eventually affected the physical development of the city.

**Minding the “Gaps”**

The gaps between the emergency lifesaving effort and post-disaster reconstruction are of particular importance in housing and community reconstruction and deserve careful management. The transitional shelter and reconstruction approach is an attempt to bridge these gaps by acknowledging that for affected families the division is artificial; therefore, interventions should be planned to better integrate response.

**The Funding Gap**

The first gap that may appear is in the continuity of funding between the contributions of the humanitarian community and funding from IFIs, such as the World Bank. The implementation of programs by government and the humanitarian community may face interruptions if this occurs. Some humanitarian organizations may even be forced to withdraw.

Throughout reconstruction, funding from different sources will go through peaks and troughs. Emergency contingency funds, such as the UN Central Emergency Response Fund (CERF), are made available almost immediately, while money from public appeals will flow early on, although not immediately. Government often injects substantial funding initially, although this funding is often reduced as funding from other sources, such as IFIs, including the World Bank, is mobilized.

To avoid this gap and to ensure consistent availability of funds, it is imperative that relationships with all funding sources are carefully managed and that funds are carefully programmed and tracked. The programming of funds should include, to the greatest extent possible, the funding of bilateral agencies and NGOs whose initial preference may be to operate outside of the government.
coordination system, since this funding is sometimes the most flexible and readily available. Other solutions are discussed in Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance. Arrangements available through the World Bank are described in Chapter 20, World Bank Response to Crises and Emergencies.

The Planning Gap
Poor or uncoordinated strategic planning—the “planning gap”—may result in unnecessary costs. For instance, if more than one plan is developed, shifts in policy and funding approaches may take place. In the process, commitments made to the affected population may be forgotten. Involving IFIs as early as possible in the planning process both resolves this strategic planning gap and helps resolve the funding gap, by ensuring that one continuous plan is produced, rather than developing two or more plans for different “phases” that may not integrate adequately.

The Implementation Gap
Another gap concerns specialist implementation capacity. Some humanitarian agencies that are specialized in, or funded for, emergency lifesaving activities may need to withdraw after the post-disaster situation has stabilized. These entities should then hand over their responsibilities and caseloads to government or agencies involved in reconstruction, or the coordination, efficiency, and consistency of the response may be jeopardized. It is common that a number of agencies leave under these circumstances, so an effective coordination mechanism is essential to ensuring a smooth transition.

The British Royal Institution of Chartered Surveyors proposes, in its report, Mind the Gap! Post-Disaster Reconstruction and the Transition from Humanitarian Relief, that chartered surveyors, geographic information systems (GIS) technicians, disaster risk professionals, and other “built environment” experts with expertise in planning and management of complex projects can play a crucial role in closing the implementation gap between humanitarian relief and reconstruction and development.8

The Participation Gap
Another gap, which is often overlooked and is often the most significant, is in the capacity of the affected population itself to participate in the response. After the initial response, shock and trauma may limit the contributions of some members of the affected population. However, in the subsequent weeks, months, and years, the affected population constitutes the largest contributor of labor to the reconstruction effort. Yet as the population begins to recover its livelihoods, families affected by the disaster should not be forced to choose between reestablishing their financial independence and participating in reconstruction. This gap may come and go suddenly due to internal or external

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factors, for example, the onset of a rainy season in a farming community or the decision to accept work opportunities elsewhere. Certain factors that may cause this gap, such as crop harvests, can be planned for. The Emergency Market Mapping and Analysis (EMMA) can be used to identify how the labor supply may fluctuate during the year.\footnote{An explanation of the EMMA methodology is included in Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance, Annex 1, Deciding Whether to Procure and Distribute Reconstruction Materials.}

Good coordination by government, with support from the humanitarian community, can help mitigate these gaps. The indicators proposed by the OECD Development Assistance Committee (DAC) in 1991 for the evaluation of humanitarian programs (as updated) include an indicator for program “connectedness.”\footnote{As explained by the Active Learning Network for Accountability and Performance in Humanitarian Assistance (ALNAP) in its evaluation guide based on these indicators, “connectedness” refers to the need to ensure that activities of a short-term emergency nature are carried out in a way that takes longer-term development requirements into account.\footnote{However, the guide also states that while the need for linkages among humanitarian action, recovery, and development are well understood, no consensus exists on how lifesaving humanitarian action should support longer-term needs, mentioning natural disasters as an example of where this objective is particularly difficult to achieve.}}

Recommendations

1. Agencies should be cognizant and respectful of planning, strategies, and coordination mechanisms that have already been established when they begin operations in the disaster zone.
2. Agencies should realize that every disaster is unique in its complexity, impact, and cultural context, and should work toward an integrated approach that responds first and foremost to the needs of those affected.
3. Address the unique situations and requirements of those affected, whether displaced or not, without discriminating against any sub-group of the population.
4. Seriously consider implementing the transitional shelter approach, which addresses shelter needs over the entire period from the disaster to a permanent housing solution, rather than addressing needs in phases.
5. Make every effort to minimize the gaps between humanitarian programs and reconstruction and development, by getting all key funding institutions involved early in planning and by anticipating the transitions in delivery that will inevitably occur.
6. Expect reconstruction to take a long time, and encourage communities to think in those terms without undermining their determination to recover. Design interim shelter solutions based on realistic assumptions about time.
7. Don’t shortchange reconstruction. Adequate financial and material resources must be made available throughout the response, recovery, and reconstruction process. Governments should work with funding sources to plan the distribution of available resources over a realistic reconstruction period.

Case Studies

1963 Skopje Earthquake, FYR Macedonia

The Influence of Early Decisions on Long-Term Recovery

More than 1,000 residents of Skopje, Macedonia, perished in the 1963 earthquake, and more than 3,300 persons were seriously injured. With the vast majority of its 36,000 housing units destroyed or damaged, 76 percent of Skopje’s population was left without shelter. Decisions made immediately...
after the disaster had a major impact on Skopje’s reconstruction. Vladimir Ladinski, an architect and urban planner who lived in the city throughout the recovery process, has written a detailed, 30-year longitudinal study of the transition from relief to full reconstruction. He notes that the relief operation was probably one of the most efficient on record, with minimal aid being wasted and with authorities having very clear priorities. But despite such achievements, Ladinski raises “serious doubts [about] whether the rapid initial planning decision on the location of new settlements was correct.” His reference is to the decision, within a few days of the earthquake, to locate temporary housing in sites surrounding the city. It was naively expected that these temporary houses would be subsequently demolished to make way for permanent dwellings some nine months after the disaster. However, in modified form, many remained in place much longer and had a negative impact on the development of the overall city plan.


### 2004 Indian Ocean Tsunami, Indonesia

#### Evaluation of a Transitional Shelter Program

The 2004 Indian Ocean Tsunami left more than 550,000 people displaced in the province of Aceh, Indonesia. The IFRC responded by implementing a transitional shelter program. From August 2005 to December 2007, some 19,920 transitional shelters were built for families that were still living in tents or shackles. The purpose of this transitional shelter program was to provide a solution that would “fill the gap” between an emergency shelter solution, such as tents, and permanent houses. The steel-framed houses with wooden walls and floor and a sheet-metal roof were intended to provide shelter for a period of 2–4 years. A study initiated by the IFRC and the Netherlands Red Cross showed that the program had a strong positive social impact and a slight positive economic impact on the beneficiaries. This positive impact continued even after the household moved to a permanent house, which shows that the benefits of transitional shelter can go beyond only being a temporary solution for housing after a disaster. However, the positive impact is seen only when a household lives in the transitional shelter for a relatively short period. Transitional shelter should be kept as a short-term solution because it does not meet the needs of a family over a longer period of time. There was a noticeable decrease in economic impact when a family lived in a transitional shelter for a longer period.

Source: S. G. van Dijk, 2009, A Socio-Economic Impact Study on a Transitional Housing Program. Case Study of a Red Cross and Red Crescent Housing Program in Indonesia (research report, Eindhoven University of Technology, in collaboration with the IFRC and Netherlands Red Cross).

### 2003 Bam Earthquake, Iran

#### Differences in Urban and Rural Shelter Approaches

The large-scale destruction caused by the 2003 earthquake in Bam, Iran, made it unlikely that affected communities would soon have permanent housing. Authorities estimated that at least two years of temporary shelter would be needed before permanent housing would be available, at least in urban areas. National relief agencies pushed to establish camps, despite the strong desire of the people to erect shelters on or close to their own land. The justification of the agencies was that camps would simplify the delivery of services and lower their costs. Yet worldwide, experience has shown that establishing camps for displaced people following disasters has negative socioeconomic impacts on reconstruction and long-term development, and only makes sense when concerns such as security make other alternatives impossible. Therefore, a national strategy for housing reconstruction was formulated and made public. It entailed (1) in urban areas, providing interim or transitional shelters—including prefabricated units on vacant urban lots or the family’s land—that would address housing needs for a 2-year period for the entire affected population, and (2) in rural areas, building permanent housing on original housing plots as soon as practicable. Permanent shelter in urban areas would not be built until the city master plan was updated and reconstruction guidelines were approved.

Prefab houses measuring 18 square meters were provided to all urban households who could prove (using, among other things, the testimony of other residents) that they lived in the area prior to the disaster. For households with more than four people, two prefab houses were provided. An additional unit was available for purchase. The cost for a prefab house was around US$2,000, including transport. Each was installed on the land designated by the household.

2005 North Pakistan Earthquake, Pakistan

Reusing Transitional Shelter Materials in Permanent Homes

In October 2005, a strong earthquake and several aftershocks struck Pakistani-controlled Kashmir, northern Punjab, and the North West Frontier Province, devastating poor communities in towns and villages located in harsh, mountainous terrain. Even with winter approaching, many homeless families decided not to leave their villages for government camps because of concerns about their land and livestock, the sources of their livelihood. To help these families, Habitat for Humanity Pakistan (HFHP) introduced a dome-shaped transitional shelter made with materials that could be reused later in permanent houses. The shelters consisted of a tubular pipe structure, galvanized corrugated iron sheets attached using metal ties, and foam insulation. The transitional shelters were easy to assemble and cost about as much as a tent. Approximately 400 of them were erected in the mountainous areas around Balakot and Muzaffarabad. During the spring of 2006, HFHP began building new, earthquake-resistant homes, following guidance from the government’s Earthquake Reconstruction and Rehabilitation Authority. Around Balakot and other villages in the Union Council area, HFHP implemented a new construction program that included recycling heavy timber from the destroyed houses into lighter wooden construction elements, using mobile sawmills that were transported from village to village. The galvanized corrugated iron sheets from the transitional shelters were used as roof elements in the new homes. More than 345 new homes were built and an additional 5,500 families were assisted with sawmill services.


2009 Abruzzo Earthquake, L’Aquila, Italy

Temporary Housing Solution Implemented by the Italian Civil Protection

Soon after the April 6, 2009, Abruzzo earthquake, whose epicenter was near the city of L’Aquila, Italy, the Italian government began to analyze the feasibility of a temporary housing project. The first estimate after the earthquake was that 20,000–25,000 people would need temporary shelter. Later, it was agreed that 4,500 units would accommodate the temporary housing demand of all families with three or more members whose houses were destroyed or severely damaged by the earthquake.

Previous Italian experience with earthquakes had shown that reconstruction in a historical center can take 5–10 years, and sometimes longer, which creates a difficult situation for the affected population. While L’Aquila is in a cold mountainous area, the earthquake occurred in April, the beginning of six months of good weather for construction. This made the option of building comfortable temporary housing much more feasible. Another consideration was that, because there are approximately 15,000 students seeking housing in L’Aquila every year, the temporary apartments could eventually be reused as student dormitories.

Government approved the temporary apartments project, called Progetto C.A.S.E (Complessi Antisismici Sostenibili ed Eocompatibili o Antisismici, Sustainable, and Ecofriendly [housing] Complexes), at a cost of 700 million euro (US$929 million). The aim was to build energy-efficient, seismically sound temporary apartments in 3-story buildings. A total of 16 firms won design contracts. The new houses needed to be available within six months and to have expected useful lives similar to normal houses. While different designers used different materials (timber, steel, or concrete), all the units were prefabricated and had to meet a rigid time completion schedule. The design criteria and construction process were planned to allow this accelerated construction schedule.

The foundations of the houses are composed of a double platform: the lower one is a foundation plate that rests directly on the ground, and the upper platform lies on more than 7,000 seismic isolators mounted on steel columns fixed at the foundation plates. The design drastically reduces seismic forces and makes the buildings almost completely earthquake-resistant. The covered area between the two plates is designed for underground parking. Besides paying for Progetto C.A.S.E, government is covering the repair costs, including seismic retrofitting, of all permanent housing.

Source: Prof. Mauro Dolce, General Director of Seismic Emergency Unit, Italian Civil Protection, 2009, personal communication.
Resources


International Federation of Red Cross Societies is the lead cluster agency with responsibility for shelter following natural disasters. http://www.ifrc.org.

International Recovery Platform (IRP) identifies gaps and constraints in disaster recovery and serves as a catalyst for the development of tools, resources, and capacity for resilient recovery. IRP has a range of resources that address reducing risks in recovery. http://www.recoveryplatform.org.


ProVention Consortium seeks to reduce the risk and social, economic, and environmental impacts of natural hazards on vulnerable populations in developing countries in order to alleviate poverty and to contribute to sustainable development. Excellent guidelines on earthquake recovery management. http://www.proventionconsortium.org.

UN-HABITAT promotes socially and environmentally sustainable towns and cities and adequate shelter for all. Its disaster management program helps governments and local authorities rebuild from war or natural disasters. http://www.unhabitat.org/categories.asp?catid=286.

United Nations Development Programme Crisis Prevention and Recovery (UNDPCPR) works around the world to restore the quality of life for people who have been devastated by natural disaster or violent conflict. http://www.undp.org/cpr/.


Information on Transitional Shelter Strategies

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<thead>
<tr>
<th>Organization</th>
<th>Area of expertise</th>
<th>Contact information</th>
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</thead>
<tbody>
<tr>
<td>IFRC</td>
<td>IASC Emergency Shelter Cluster co-convener for natural disasters</td>
<td><a href="http://www.ifrc.org">http://www.ifrc.org</a></td>
</tr>
<tr>
<td>Shelter Centre</td>
<td>Sector support resources, including shelter library and global shelter community of practice</td>
<td><a href="http://www.sheltercentre.org">http://www.sheltercentre.org</a></td>
</tr>
<tr>
<td>UNHCR</td>
<td>IASC Emergency Shelter Cluster co-lead for conflicts</td>
<td><a href="http://www.unhabitat.org">http://www.unhabitat.org</a></td>
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</tbody>
</table>
Guiding Principles for Assessing Damage and Setting Reconstruction Policy

- For early, rapid assessments, timely presentation of assessment data takes precedence over exhaustive analytical precision. However, rapid assessments are generally followed by more detailed, sector-specific assessments.
- Joint (multi-donor) assessments and standardized assessment methodologies produce benefits in terms of efficiency, quality, and common understanding of the disaster situation.
- Data collected during assessments—whether multi-sectoral or sector-specific—should be shared, if possible, to reduce duplication of efforts.
- Consultation with affected communities is essential and is possible even in rapid-onset emergencies. Affected communities may want to conduct their own assessments.
- A detailed housing condition assessment is always necessary to estimate the total cost of reconstruction and to allocate the resources.
- Assessment should focus not just on bricks and mortar; the social condition of the people, their working ethos, their willingness to participate, and cultural values all affect reconstruction.
- The particular needs of different groups and individuals (e.g., men, women, the elderly, children) should be evaluated during assessments. Marginalized and vulnerable populations must be sought out and their needs and interests incorporated into reconstruction policy.
- The reconstruction policy is pivotal because it establishes the expectations of the affected community and provides the framework for intervention by local and international actors.
- Communicating the reconstruction policy effectively to those affected by it is almost as important as defining it well. The added value of communication is highest when included from the beginning.

Introduction

Until the impact of a disaster is assessed, no significant or systematic response can be mobilized. For that reason, assessment is one of the most powerful tools in the disaster response tool kit. Assessments help to establish the extent of post-disaster damage, loss, and needs, and they come in many forms: rapid, detailed, multi-sectoral, and sector-specific. In housing and community reconstruction, a house-to-house assessment of housing damage should always be done. In addition, an assessment of the housing sector may be done. Many assessment methodologies exist; numerous efforts are under way to improve and standardize them.

The principal tradeoff in conducting a rapid assessment is timeliness versus accuracy and completeness. Early data will be more subject to revision over time, but having early information on damage and needs and estimates of reconstruction costs facilitates the initial appeals and response.

Once a disaster’s impact is understood and can be quantified, reconstruction planning can begin. Ideally, this is coordinated with government’s definition and announcement of its reconstruction policy. Reconstruction policy lays out the “rules of the game” for reconstruction, especially the roles of various actors and how they will coordinate, the forms of support that will be provided, and the risk reduction measures that will be taken against future disasters.

This chapter presents the current state of the art of post-disaster assessments and provides some good examples of methodologies. It also explains what the scope and content of a post-disaster reconstruction policy should be and summarizes two examples.
Key Decisions

1. **Government** must designate the agency responsible for assessment; this is often the lead disaster agency, but it may be a statistical or technical agency in government or academia.

2. The **agency responsible for assessments** must decide how it wants the assessment process to be organized and coordinated, the assessment instruments it prefers, and whether and how assessment data will be shared. Humanitarian agencies usually provide assistance with rapid assessments in the early weeks.

3. The **agency responsible for assessments** should coordinate with **local government**, **agencies involved in reconstruction**, and the **affected communities** to define the rights of the communities with respect to assessment, including the management of their personal data, and their participation in the assessment process.

4. **Government** must designate the agency responsible for reconstruction policy, which will vary depending on the scale of the disaster and the institutional roles defined in national disaster policy. For a localized disaster where subnational government is strong, the responsible agency may be subnational government.

5. The **agency responsible for reconstruction policy** should decide how it will consult with stakeholders, including affected communities and agencies who wish to be involved in reconstruction, before announcing the reconstruction policy.

6. The **agency responsible for reconstruction policy** must establish the basic parameters of the reconstruction policy, including the household assistance strategy, before making its initial policy announcement, but may refine the policy over time.

7. **Agencies involved in reconstruction** should decide with **government** how to make project plans consistent with housing and infrastructure sector policies.

Public Policies Related to Assessment and Reconstruction Policy

If government has preplanned its disaster policy and institutional response for housing and community reconstruction, this plan—and the assessment process it contemplates—has only to be activated. If this has not been done, decisions on assessment procedures and policy will need to be made expeditiously.

If a country has good social and economic data on the population and built environment affected by the disaster, the initial assessment can be greatly accelerated and its quality can be improved. Information and communications technology (ICT) is increasingly being employed in this way. The initial damage and loss assessment (DaLA) after the 2008 Wenchuan, China, earthquake was conducted exclusively using government data sources and satellite imagery. This does not eliminate the need for on-the-ground assessments, but greatly accelerates initial assessments. Existing social and economic databases can also provide a baseline for post-disaster assessments, making the quantification of damage more reliable.

The reconstruction policy should take into consideration existing sector strategies and capital investment plans in the sectors affected by the disaster, such as housing, infrastructure, health, education, and transport. Government should coordinate with agencies involved in reconstruction to ensure that project plans based on assessments are also consistent with sector policies. The government of the Indian state of Tamil Nadu, for example, made a policy decision to include thousands of vulnerable households not affected by the 2004 Indian Ocean tsunami in the post-disaster housing reconstruction program and to require that sanitation was provided in all reconstruction sites, as described in the case study below.
CHAPTER 2: ASSESSING DAMAGE AND SETTING RECONSTRUCTION POLICY

Technical Issues
Assessment Types and Definitions

<table>
<thead>
<tr>
<th>Type</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Damage assessment</td>
<td>An assessment of the total or partial destruction of physical assets, both physical units and replacement cost.</td>
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<tr>
<td>Loss assessment</td>
<td>An analysis of the changes in economic flows that occur after a disaster and over time, valued at current prices.</td>
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<tr>
<td>Needs assessment</td>
<td>An assessment of the financial, technical, and human resources needed to implement recovery, reconstruction, and risk management. Usually “nets out” resources available to respond to the disaster.</td>
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<tr>
<td>Rights-based assessment</td>
<td>An assessment that evaluates whether people’s basic rights are being met. Has its origins in the United Nations Universal Declaration of Human Rights.²</td>
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<tr>
<td>Rapid assessment</td>
<td>An assessment conducted soon after a major event, usually within first two weeks. May be preceded by an initial assessment. May be multi-sectoral or sector-specific. Provides immediate information on needs, possible intervention types, and resource requirements.</td>
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<tr>
<td>Detailed assessment</td>
<td>An assessment undertaken after the first month to gather more reliable information for project planning. Often takes about a month to conduct, and is usually sector-specific.³</td>
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<tr>
<td>Housing damage assessment</td>
<td>A damage assessment that analyzes the impact of the disaster on residential communities, living quarters, and land used for housing (see details, below).</td>
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<tr>
<td>Housing sector assessment</td>
<td>An assessment of the policy framework for housing, the post-disaster housing assistance strategy, and the capability of housing sector institutions to carry it out (see details, below).</td>
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<tr>
<td>Communication-based assessment (CBA)</td>
<td>An assessment that analyzes how the context will affect reconstruction and the way in which communication with the affected community can support the reconstruction effort. It includes government and political risk analysis, stakeholder analysis; media, communication environment, and local capacity analysis; and social and participatory communication analysis.⁴</td>
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Convergence of Assessment and Analysis Methodologies

Experts working in the disaster field have been confounded in recent years by the array of post-disaster assessments, assessment terminology, and assessment methodologies they encounter. As a result, the United Nations (UN) clusters and other international agencies, including the World Bank, are engaged in various efforts to standardize and improve assessment and analytical tools at all phases of an emergency and to establish indicators, definitions, improved methodologies, standardized information requirements, and accepted thresholds for humanitarian action. A related effort is under way to build partnerships for joint assessments and information consolidation. All of these initiatives aim to address needs for better information for sectoral programming and more timely information at the onset of an emergency. Two of these efforts are especially significant, as discussed below.

Assessment and Classification of Emergencies. The UN Office for the Coordination of Humanitarian Affairs (UN OCHA) established the Assessment and Classification of Emergencies (ACE) project in 2008 in an attempt to map the various humanitarian assessment initiatives currently under way and to facilitate the development of an overarching approach to assessment. In February 2009, UN OCHA issued its “Mapping of Key Emergency Needs Assessment and Analysis Initiatives: Final Report,” which analyzes the main assessment and analysis framework initiatives under way at the global level.⁵ However, a wide variety of multi-sectoral and/or sector-specific tools used by particular organizations in the field were not analyzed, including those of donors.

The report organizes the various assessment initiatives in three categories:
1. standards-related initiatives, which serve as a foundation for assessment tools and data collection (for example, the Sphere Project⁶);
2. primary data collection, distinguishing between rapid and in-depth assessments (for example, the Local Estimate of Needs for Shelter and Settlement [LENSS], described below, being developed by the Inter-Agency Standing Committee [IASC] Emergency Shelter Cluster); and
3. analysis frameworks, where information and data generated by the two previous categories are integrated into a framework for analysis and/or planning (for example, the Post-Disaster Needs Assessment [PDNA] project, described below, being carried out by the UN, the World Bank, and the European Commission [EC]).

3. Information on sector-specific assessments is found in several chapters of this handbook.
4. For a detailed explanation of a Communication-Based Assessment, refer to Chapter 3, Communication in Post-Disaster Reconstruction.
Local development, housing, and land tenure issues that emerge after a disaster are often not new, but the disaster may exacerbate any weaknesses in the system. Reconstruction challenges such as widespread poverty, extensive informality in the housing system, or a large number of housing units that need to be reconstructed, will just make the problems more visible.

As part of this effort, the ACE working group prepared a sequencing framework, which is useful for understanding when the various needs assessment initiatives (not all of which are yet in use) are being or would be applied within the emergency timeline. The timeline includes 24 separate assessments instruments or initiatives.

**Needs Assessment Task Force.** Since the issuance of the ACE report, a Needs Assessment Task Force (NATF) has been appointed, co-chaired by UN OCHA and the International Federation of Red Cross and Red Crescent Societies (IFRC). NATF was created to strengthen decision making and to improve response by harmonizing and promoting cross-sector needs assessment initiatives that produce consistent, reliable, and timely data on humanitarian needs. Initially focusing its work on preparedness, Phase I (first 72 hours), and Phase II (first 2 weeks) in sudden onset emergencies, NATF will later work on Phase III (second 2 weeks) onward, including early recovery, and will address slow onset emergencies, as progress is made on the first phases.

If the effort to harmonize assessment methodologies is successful, future results will include (1) development of a consolidated needs assessment “tool box,” including standardized tools, such as forms and questionnaires that can be adapted for specific contexts; (2) better data management and reduction in the unnecessary collection of similar information; (3) the development of a core set of indicators per sector, which would be consistently collected, thereby improving data aggregation, prioritization of needs across sectors, and equitable response; and (4) multi-sectoral needs assessment tools to collect core common data for decision making and immediate life-saving interventions. In the meantime, governments and agencies working in reconstruction will encounter a variety of assessment methods and tools, and should carefully evaluate the quality of the outputs from these methodologies before acting on them.

**Post-Disaster Needs Assessment project.** The PDNA project is a cooperative effort between United Nations agencies (led by the United Nations Development Programme as the Chair of the Cluster Working Group on Early Recovery[^7][^8]), the World Bank, and the EC to develop a practical guide to a multi-stakeholder PDNA and a recovery framework (RF).

The objective of this project is to develop a shared understanding of the impact of a natural disaster by integrating assessment methods used by international financial institutions (IFIs) (primarily the DaLA methodology developed by UN Economic Commission for Latin America and the Caribbean [ECLAC], which was published in 1991 and reissued in an updated format in 2003), which focus on macro-economic issues, and those used by the IASC humanitarian clusters, UN agencies, and nongovernmental organizations (NGOs), which tend to be sectoral and to have a humanitarian focus. It ultimately aims to improve coordination and capacity at national and international levels to conduct recovery-oriented needs assessments and to carry out recovery planning, in order to connect national plans with the delivery of recovery programs at the local level.

Expected outputs from the PDNA project include (1) protocols of cooperation between the United Nations, the World Bank, and the EC on covering joint missions and capacity building; (2) a practical guide to multi-stakeholder PDNA and the RF; and (3) field-testing and training on the framework in high-risk countries with national and international recovery partners. In addition, sectoral assessment methods that are relevant to PDNA will be adapted to enable them to better determine early recovery needs in each sector.

**Review of Selected Assessment Methodologies**

Governments and agencies involved in housing and community reconstruction should be familiar with some of the common or especially useful assessment methodologies. The following section presents a brief description of some common assessment types, including multi-sectoral assessment (DaLA and community-led assessment), housing sector assessment, and community-specific assessment (LENS and housing damage assessment).

Good practice in conducting assessments is universal, regardless of the type of assessment. This includes the need to compose assessment teams so that they incorporate the appropriate expertise and representation, including representation of the affected community; and the importance of properly training assessors in the use of the assessment instrument, the definitions of assessment terms, and the peculiarities of the assessment environment, so that the results are consistent.
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<td><strong>Damage and loss assessment</strong></td>
<td>The principal multi-sectoral preliminary assessment methodology used in recent years by IFIs, such as the World Bank, is the DaLA methodology developed by ECLAC. The assessment process is sometimes referred to as a “joint rapid assessment.” This is generally conducted as soon as possible after the initial disaster response is over. A DaLA is a detailed assessment methodology that estimates the direct economic impact (lost wealth), indirect economic impact (effect on gross domestic product), and secondary effects (fiscal impacts) of a major natural disaster. The methodology provides guidelines for social sectors, including housing, infrastructure, economic sectors, and damage assessment. Numerous examples of completed DalAs are available from the World Bank. A DaLA is a detailed yet rapid assessment that is conducted as early as possible after a disaster. It is not a substitute for either detailed, sector-specific assessments or a detailed, door-to-door housing condition assessment, both of which come later. DaLA results are often used by donors to establish initial financial commitments for housing and community reconstruction.</td>
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<td><strong>Rapid, joint, multi-sectoral – 1st month</strong></td>
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<td><strong>Community-led assessments</strong></td>
<td>After any disaster, affected communities are the primary responders. Yet once organized relief operations get under way, communities may not be consulted on important aspects of the relief and recovery. Complementing traditional agency-led assessments with community-led assessments (CLAs) provides a more complete view of the needs and capacities of the affected population. CLAs will help capture the social and psychological impacts on a community, including livelihoods, and the resources available to survivors. Because these factors affect reconstruction, they should not be overlooked; reconstruction can only begin once the household is stabilized. The CLA team must include representation of all community groups in the assessment area and be coordinated by an entity trusted them all (e.g., local government, or local or international NGO).</td>
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<tr>
<td><strong>Detailed, multi-sectoral – 1st quarter</strong></td>
<td>The Community Damage Assessment and Demand Analysis (CDADA), developed by the All India Disaster Mitigation Institute, is a very good CLA methodology. It is a detailed multidisciplinary, multi-sectoral, multicultural assessment that is adaptable to every disaster type, and can produce sector-specific outputs. The CDADA applies the Sphere Project principles and the IFRC Code of Conduct and emphasizes the role of affected communities, local governments, and community organizations.</td>
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<td><strong>Housing Sector Assessment</strong></td>
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<td><strong>Housing sector assessment</strong></td>
<td>A housing sector assessment can be very useful after a disaster to analyze the capacity of an affected region’s institutional framework for land tenure and housing and community development, its housing production and finance system, and the impact of the disaster on this system. If it is conducted early (within the first few weeks of the disaster) in parallel with other assessments, the results of the housing sector assessment can be used in the formulation of the overall reconstruction policy and in defining the housing assistance strategy. If reconstruction has already begun and stakeholders are not satisfied with the results, a housing sector assessment will diagnose what is going wrong. The importance of a housing sector and land tenure analysis may not be recognized early on. People may assume that recovery will not conform to “normal” procedures anyway, but will instead be done using “special” arrangements. However, this may not be the most sustainable reconstruction approach. Outside agency support to post-disaster reconstruction rarely runs long enough, or provides sufficient resources, for full recovery. Local development, housing, and land tenure issues that emerge after a disaster are often not new, but the disaster may exacerbate any weaknesses in the system. Reconstruction challenges—widespread poverty, extensive informality in the housing system, or a large number of housing units that need to be reconstructed—will just make the problems more visible. A housing sector assessment can also help government and agencies involved in reconstruction identify longer-term housing sector reform initiatives. A detailed methodology for a post-disaster housing sector assessment is included in Annex 1, How to Do It: Conducting a Post-Disaster Housing Sector Assessment.</td>
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<tr>
<td><strong>Detailed, sector-specific – 1st quarter</strong></td>
<td>Detailed sector assessments are likely to be carried out in other sectors as inputs to housing and community reconstruction planning, as discussed in other handbook chapters. These assessments can include, among others, environmental assessments, communications-based assessments, cultural heritage assessments, social assessments, and corruption risk assessments.</td>
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<td><strong>Other Detailed Sector Assessments</strong></td>
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<td><strong>Detailed, sector-specific – 1st quarter</strong></td>
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<tr>
<td><strong>Local Estimate of Needs for Shelter and Settlement</strong></td>
<td>The LENS methodology is designed for rapid shelter and settlement needs assessment in the immediate aftermath of a disaster and before the recovery phase. It provides a systematic assessment methodology and a series of extremely clear formats for collecting and organizing shelter data for a specific locality, which may be collected directly or extracted from other sources. The tool is intended to be used to conduct a needs assessment of and by a locality, in whatever way the population is able to organize itself after the disaster, so that it is prepared to deal with agencies that offer to assist, but it could also be used by an agency itself. One innovation in the LENS methodology is the use of a storytelling approach to explaining the shelter situation in the community.</td>
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Methodology Considerations

Housing damage assessment
Detailed, sector-specific – 1st to 2nd month

A housing damage assessment is the necessary first step that will eventually permit the reoccupancy of residential buildings. It provides the evidence needed to support decisions about providing housing assistance, training, and technical assistance for reconstruction. The assessment process is made up of a predictable set of activities, and procedures for a number of them can be established ahead of the disaster to speed up the initiation of the post-disaster housing damage assessment process. A detailed methodology for a housing damage assessment is included in Annex 2, How to Do It: Assessing Post-Disaster Housing Damage.

Besides demonstrating to citizens that recovery is beginning, housing assessments serve other purposes: (1) public safety: identify whether houses can be occupied during reconstruction (a housing safety inspection process may be required); (2) planning: to quantify the funds, time, and other resources required for recovery; (3) technical: provide information of the types of damage and the technical skills required in reconstruction; and (4) economic and social: to provide data on the impacts of the disaster at the household level.

Other chapters of the handbook provide information related to damage assessments, including Chapter 5, To Relocate or Not to Relocate (decisions about relocation of housing and communities); Chapter 10, Housing Design and Construction Technology (how disasters damage housing and how design and technology affect housing disaster resistance); and Chapter 16, Training Requirements in Reconstruction (how reconstruction training is designed and executed using the housing damage assessment results).

Data Management Issues in Assessment

Managing data. Different organizations and agencies collect post-disaster data independently at different periods and on different scales, often duplicating efforts and collecting data in a way that hampers data integration and comparison. Multiple assessments may fail to yield comprehensive, accurate, reliable, and timely assessments that are adequate to support a smooth transition between relief, recovery, and reconstruction. Geo-referencing is an example of a practice that improves the value of information and its ability to be shared, if it is collected using agreed-to standards.

Sharing disaster assessment data reduces duplication of effort and cost. UN OCHA is promoting the use of Humanitarian Information Centers (HICs), geographic information systems (GIS), data standardization, and other tools to make post-disaster data collection more efficient. See Chapter 17, Information and Communications Technology in Reconstruction, for a discussion of HICs and other information and technology-related strategies relevant to reconstruction.

Managing assessment data is not without its risks. Some consider that assessment data should be treated effectively as a “public good,” and the merits of this point of view are easily understood with respect to avoiding the duplication of data collection efforts. “Assessment fatigue” on the part of affected communities is frequently mentioned, and sharing data can help reduce this problem as well. However, data collected in assessments need to be handled and presented with care, since they represent personal information and in some cases may be of a nature that they are protected by confidentiality laws. The fact of the emergency should not override these rights. Information collected in assessments will also reflect the biases of both the informants and the assessors, and biases may affect the interpretation of data collected as well. If the assessors are not experienced, training will be needed before they conduct the assessment. Lastly, assessment data should be compared to baseline information, which may reside in government, but and be readily available.

Good assessment design, data collection protocols, and data management procedures can help control the risks mentioned above. Assessment design and data collection should anticipate how the information will be used. Rules for data confidentiality and disclosure should also be established.

If a HIC or other common data management system is established, its functions can include review of assessment instruments, tabulation and interpretation of data, securing and management of baseline data, and definition of rules for data management and disclosure.

Ensuring data quality. For primary data, it may be advisable that data collection be organized at an interagency level and led by government, with one government department taking the lead in coordinating and managing data collection across departments and with agencies to ensure that:
data are collected on the basis of an agreed-to and mutually consistent plan; 
- damage classification criteria and categories are consistent across sectors; 
- damage classification criteria are consistent within a sector, and across various administrative/geographical divisions; 
- data are validated using empirical tools and plausibility checks; and 
- baseline asset classification, such as definitions of various types of houses and categories of infrastructure, such as primary, secondary, and tertiary infrastructure, is consistent among assessments and with public accounts.

If independent assessment teams are concurrently determining damage levels or reconstruction needs, then guidelines and tools should be made available to ensure the consistency of the estimates of need, such as use of common rates and uniform reconstruction benchmarks for housing and infrastructure. Templates can be developed to ensure that damage data are being collected in a structured and uniform manner. Orientation sessions for assessors are essential to train them on the meaning of terms used in the templates, as well as on collection methods. Assessment teams should practice on damaged houses until their results are consistent. See Chapter 16, Training Requirements in Reconstruction, for more advice on training assessors.

The Needs of Vulnerable Groups in Assessments
Vulnerable groups include displaced people, women, the elderly, the disabled, orphans, and any group subject to discrimination. Vulnerable groups may be omitted from assessments unless an effort is made to ensure their involvement. This is not just a quantitative issue, but a qualitative one, since addressing the post-disaster needs of these groups may require that special measures be taken in reconstruction. Good practices include:
- involving vulnerable group members in assessment and in all stages of decision making;
- obtaining information about the needs of the affected group from both men and women;
- collecting data disaggregated by sex, age, health status, economic class, etc., and then using the disaggregated data in both program planning and monitoring;
- paying special attention in assessments to groups that experience social exclusion (such as the handicapped, widows, and female heads of household); and
- assessing disaster impact on the informal social protection systems that vulnerable groups depend on, not just the "bricks and mortar" impacts.

Defining Reconstruction Policy and Programs
Governments who have put emergency management plans, structures, and arrangements in place for preparedness and response are better prepared to define the institutional arrangements and reconstruction policy for any particular disaster. If the emergency management plan includes safeguard measures to help at-risk communities prepare for disasters, those communities not only are likely to be less affected by the disaster, they will be in a better position to manage reconstruction. For these reasons, it's critical that governments—especially those in vulnerable countries—make a serious commitment to implementing, or continuing to implement, the Priorities for Action of the Hyogo Framework for Action, shown at right.16 Technical assistance is available from the Global Facility for Disaster Reduction and Recovery (GFDRR), the International Strategy for Disaster Reduction (ISDR), and other international agencies to design and implement disaster risk and emergency management plans.

The flowchart entitled “The Process of Response and Reconstruction” included at the handbook’s table of contents provides an overview of the types and sequence of decisions policy makers will be required to make in reconstruction. Individual chapters of this handbook discuss sector-specific policy options that should be considered, such as policies for environmental management, land use planning, and disaster risk management, to name a few. However, this section stresses the importance of elaborating an integrated reconstruction policy and strategy to guide the reconstruction program and communicating it broadly. While this is needed for all sectors, this section focuses specifically on the policy for housing and community reconstruction.

Hyogo Framework for Action Priorities for Action
1. Making disaster risk reduction a priority. 
2. Improving risk information and early warning. 
4. Reducing the risks in key sectors. 
5. Strengthening preparedness for response.


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The Six Dimensions of Governance

Governance is defined as the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored, and replaced; the capacity of government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them. WGI measures six dimensions of governance that correspond to this definition.

1. **Voice and Accountability**: the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media

2. **Political Stability and Absence of Violence**: the likelihood that government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism

3. **Government Effectiveness**: the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of government’s commitment to such policies

4. **Regulatory Quality**: the ability of government to formulate and implement sound policies and regulations that permit and promote private sector development

5. **Rule of Law**: the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence

6. **Control of Corruption**: the extent to which public power is exercised for private gain, including both petty and grand forms of corruption

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**The political economy of reconstruction.** In recent analytical work conducted on improving the results of policy reform related to poverty reduction, the World Bank has defined “political economy” as the study of the interactions between political processes and economic variables. A political economy perspective provides insight into the dynamics of reform processes within a country or locality. Stakeholders’ interests, and the power relations between social actors, influence their support or opposition to reforms. According to the Bank, the sequencing and timing of actions associated with policy reforms can also determine the level of tension and conflict, the duration, and ultimately the success or failure of reforms.

Reconstruction may not be viewed as policy reform per se, especially due to the accelerated nature of the reconstruction process. However, to the extent that the way in which reconstruction is carried out changes the power relationships or allocation of resources within society, it has many of the same effects as traditional policy reform. For instance, if tenure security is provided to affected communities in reconstruction (as this handbook recommends), there is an economic transfer to those communities, which, as a result, gain social standing and potential future influence.

Political economy factors will be brought to bear on the reconstruction process as economic and social interests vie for influence in many areas, including (1) setting the reconstruction agenda, (2) managing the message through communications with the public, (3) allocating the resources among social groups, and (4) gaining access to the resources being spent. Governments should analyze how political economy factors constitute risks or opportunities for the reconstruction program—including looking at how stakeholders are using their position to protect or strengthen their political or economic interests by building coalitions, negotiating, building consensus, and bargaining to generate outcomes that are favorable to them—and be prepared to manage this aspect of reconstruction. This may require the assistance of political scientists or political economy experts.

Because, inevitably, reconstruction benefits some more than others, and because government itself is part of a country’s political economy, it is impossible to inoculate the reconstruction process from political economy influences. Good governance of the reconstruction process is the best antidote. Therefore, the goal in reconstruction should be to establish and orchestrate a reconstruction process whose outcomes promote social equity and reflect good governance practices. The dimensions of governance used in the Worldwide Governance Indicators (WGI) project, shown in the text box, above, have become widely accepted. Good governance practice material is cited throughout Chapter 19, Mitigating the Risk of Corruption, and its annexes.

**Challenges in defining reconstruction policy.** Data collected during assessments are critical evidence for establishing the reconstruction policy. However, it is highly likely that not all the necessary information will be available when the policy is first outlined and even announced publicly. For instance, a rapid assessment of housing damage may give government a estimate of the number of affected households, and perhaps of the extent of housing damage, but is unlikely to provide reliable estimates of the cost of repairing or the number of houses that will need to be demolished. That requires a housing damage assessment. This “information lag” creates a number of challenges that policy makers are forced to confront in defining and announcing reconstruction policy.
CHAPTER 2: ASSESSING DAMAGE AND SETTING RECONSTRUCTION POLICY

Policy making challenge | Advice to policy makers
---|---
The reconstruction policy will be a work in progress that will need to be updated as more information becomes available. | Avoid announcing the details of assistance schemes before collecting relatively reliable data on the households affected, to avoid making commitments to the affected community that may become difficult to keep for logistical or financial reasons.

Affected communities and other stakeholders should be consulted with about the parameters of the reconstruction policy before those parameters are finalized. Avoiding this step can establish a dynamic of mistrust that will be difficult to overcome later. | Avoid presenting the reconstruction policy as final before a substantive dialogue concerning reconstruction has taken place with stakeholders. See the case study on Tamil Nadu reconstruction, below, for examples of how stakeholder consultation was used before reconstruction policies were announced.

Decisions made early in the response may affect how reconstruction can be carried out. As explained in Chapter 1, Early Recovery: The Context for Housing and Community Reconstruction, government—working with the humanitarian community in the first two weeks after the disaster—is likely to have conducted the initial assessment, announced a rapid appeal, and defined project level work plans. | Realize that early shelter decisions may affect the options available later in the reconstruction program and think carefully about the longer-term implications of short-term solutions. A decision to move the entire population to camps, as opposed to providing in-situ transitional shelter solutions, for example, could disperse an affected community to such a degree as to make a community-led reconstruction approach nearly impossible.

Announcing the assistance scheme before assessments are conducted may create an incentive for homeowners to damage their houses in order to receive the announced benefit, and result in multiple assessments and extensive processing of grievances. | Conduct at least an initial census and housing damage assessment before announcing housing assistance schemes.

The lack of involvement in these early assistance policy discussions of the IFIs who may provide the financing to government for reconstruction has been identified as an international coordination issue that needs to be addressed. This is one of the motivations for the efforts to harmonize assessment methods discussed earlier in this chapter.

The parameters of the reconstruction policy. Two case studies of successful reconstruction policies are included below. While there is no template for a reconstruction policy, the chapters of this handbook represent the critical areas that need to be covered in such a policy, and each provides relevant advice for policy makers. Particularly important are the chapters in Section 1, Assessing Impact and Defining Reconstruction Policy, and Section 2, Planning Reconstruction. The scope of the policy, and the corresponding handbook chapters, include the following.

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For access to additional resources and information on this topic, please visit the handbook Web site at www.housingreconstruction.org.
Risks and Challenges

- No single competent government agency designated to manage assessments after the disaster; leaving it instead to individual agencies.
- Government overpromising in the early days after the disaster before sufficient information is available.
- Inaccuracies in the damage assessment caused by the lack of baseline data (original condition of infrastructure and housing) or inconsistencies of data from various sources.
- Proliferation of assessments and the resulting assessment fatigue among the affected population. False expectations being created in the assessed population.
- Failure of agencies to share assessment data.
- Inadequate assessment quality because assessors are not sufficiently trained.
- Local requirements not reflected because community or other local data are not incorporated in national assessments. Needs of vulnerable populations not highlighted in assessments.
- Owners who damage their own housing in order to qualify for housing assistance because the assessment of housing damages takes place after the assistance scheme is announced.
- Assessment data not objectively analyzed. Assessments carried out simply to justify agency decisions, not to inform them.
- Reconstruction policy that does not take sector investment plans and long-standing needs into account.
- Lack of stakeholder consultation in the process for establishing the reconstruction policy.

Recommendations

1. Conduct multi-donor assessments whenever possible, using standardized assessment methodologies.
2. In designing the assessment and data collection, take into consideration how the information will be used and shared, the biases of the assessors, and the need for training.
3. Treat national and sector-specific data collected during assessments as public information, while respecting principles of confidentiality, to reduce duplication of data collection efforts.
4. Evaluate the needs of different groups and individuals (such as men, women, the elderly, and children) during assessments. Seek out marginalized groups and evaluate their needs and interests as well.
5. Advocate for a Communication-Based Assessment at the beginning of the project cycle to ensure that the reconstruction program is designed based on its results.
6. Consult with the community regarding the need for information and consider using community-led assessments to complement the information gathered from traditional assessment methodologies.
7. Establish a clear system of damage categories for housing, and try to carry out housing damage assessments before announcing the housing assistance scheme.
8. Observe the warnings regarding the announcement of reconstruction policy, such as the need to consider the impact of short-term shelter decisions on longer-term reconstruction.
9. Understand that the reconstruction policy should be one of the primary messages to be passed along to the public through the communication plan. Remember that what’s important is what people hear, not what is said to them.
10. If reconstruction is not going well, or there are concerns about institutional capacity for reconstruction, conduct a housing sector assessment to identify whether assistance may be needed.

Case Studies

2004 Indian Ocean Tsunami, Tamil Nadu, India

Tamil Nadu State Tsunami Reconstruction Policy

The 2004 Indian Ocean tsunami had a widespread impact on the fishing villages and towns along the coastline of Tamil Nadu, India. The state had never seen a calamity of this nature. More than 8,000 lives were lost and 1 million people were affected. Most of the 54,000 housing units affected were destroyed. More than 400 schools, health clinics, and other public buildings were destroyed and many more were damaged, as were roads and other infrastructure. The impact was spread over 13 districts and 350 towns or villages. The entire coastal economy of Tamil Nadu was affected.

The Tamil Nadu State Tsunami Reconstruction Policy addressed a wide range of issues, focusing particularly on the environment, livelihoods, and shelter, and included all the measures the government of Tamil Nadu was taking to bring the lives of the affected people back to normal. The responsibility

CHAPTER 2: ASSESSING DAMAGE AND SETTING RECONSTRUCTION POLICY
for managing reconstruction was assigned to a Project Implementation Unit within the Revenue Administration, Disaster Management, and Mitigation Department of the state government. Numerous state agencies and the federal government collaborated in the effort. The cost of rebuilding in Tamil Nadu was estimated at US$880 million. Of this, US$566 million was borrowed from IFIs.

**Assessment.** A questionnaire was developed by the state and administered by district officials to ascertain the number of affected families in each zone, the type of construction, the ownership of the structures, the number of family members, etc. The survey covered 278,000 families who lived within 1,000 meters of the coast. The survey included families whose houses were not damaged, but whose livelihoods had been affected by the tsunami. The survey results formed the basis of the choices before government in terms of the area, the average size of houses to be built, the general nature of construction, and the approximate cost. The survey showed that tenancy was an issue mainly in the urban areas, so a policy decision on this aspect of reconstruction was postponed until further input could be gathered.

**Housing sector policy.** Within two weeks of the tsunami, the Revenue Administration, Disaster Management, and Mitigation Department had issued a government order\(^{20}\) that announced a comprehensive village development model. The order promoted private participation in reconstruction, limiting the role of government to providing land, specifications for housing, and common amenities. The order included the parameters for the projects and solicited NGO proposals. Media advertisements were issued calling for support.

The specific policies established to guide reconstruction included extensive consultation with stakeholders, community choice on relocation decision, agency-driven reconstruction with NGOs providing resources and assisting communities, a strong role for district governments with support from the state, adherence to coastal zone regulations, safe rebuilding according to building codes and guidelines, and financial assistance for a core house with a choice of models.

**Disaster risk reduction.** Government acknowledged that most of the buildings damaged by the tsunami were built with construction practices that were not appropriate for the area, given the hazards it was exposed to. To mitigate future risks, the reconstruction policy for housing and infrastructure would strongly promote use of disaster-resistant technologies. The decision about whether the community would relocate was left to the community itself. Relocated communities were given free parcels of land in urban and rural areas.

**Assistance packages.** Assistance was provided by NGOs and was the same for all. The amount was sufficient to provide a core house and basic infrastructure. This approach was used both for equity purposes and because the property records would not have permitted a fair valuation of the property that was lost.

The state decided to adhere to the Coastal Regulatory Zone regulations under the Environment Protection Act, which regulate building activity up to 500 meters from the high tide line. The only exceptions were for fishers, who were allowed to stay if not willing to relocate beyond 200 meters, but who were not allowed to rebuild, only repair, their houses, and were not given housing assistance.

**Building codes.** The state relief commissioner’s office set up a committee of experts to study the National Building Code and the guidelines developed in Gujarat after the earthquake. They suggested modifications based on the windy conditions prevailing along the Tamil Nadu coast. These were used to develop the core house designs.

**Institutional arrangements.** While owner-driven construction was permitted, in the end, NGOs, donors, and government built most of the housing with a high level of community involvement. District governments were given responsibility for coordination of the reconstruction, with significant financial and technical support from the state. NGOs of various kinds were invited to provide reconstruction resources and to assist communities. In those cases where NGOs or corporations did not come forward, reconstruction was coordinated by district collectors and financed by government after organizing the families into self-help groups.

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The government of Tamil Nadu committed itself to carrying out the following measures.

<table>
<thead>
<tr>
<th>Commitment</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Temporary shelters</td>
<td>Government provided a grant of Rs 8,000 (US$180) for temporary shelters to be built by government as well as by NGOs.</td>
</tr>
<tr>
<td>2. Core houses</td>
<td>Instead of adopting “compensation” as the basis for entitlement, a core house was provided irrespective of the size of the original house. NGOs were asked to spend an average of Rs 150,000 (US$3,500) for a house of 325 square feet, plus infrastructure and livelihood activities.</td>
</tr>
<tr>
<td>3. Building codes and guidelines</td>
<td>The state Public Works Department developed plans for the model core houses and made them widely available. Some were two floors.</td>
</tr>
<tr>
<td>4. NGO guidelines</td>
<td>The state provided district officials with guidelines to assess the genuineness of the NGOs operating in the post-disaster environment and a model format for a detailed memorandum of understanding (MOU) between the district and the NGOs. Several respected NGOs reviewed the draft MOU and proposed clarifications. Local officials could make minor changes to suit local conditions.</td>
</tr>
<tr>
<td>5. Land acquisition</td>
<td>The state provided funds to districts for land acquisition up to 200 percent of value in order to relocate owners from the coastal zone and other high-risk areas. There were no lawsuits by property owners. Land for relocated houses was provided by the state.</td>
</tr>
</tbody>
</table>

**Insurance and title.** The housing assistance included payment for 10 years of property insurance on the new houses. The ownership of the houses passed to both the husband and wife after construction was completed.

**Communications with stakeholders.** Several rounds of consultations were held by the districts with the community regarding the housing aspirations of the affected families, especially women. Five housing models were developed. When the original designs did not have a staircase, this was subsequently changed based on consultations.

The results of assessments, the names of assistance recipients, the reconstruction guidelines, and the housing reconstruction policy were widely publicized and made available on the Web sites of the districts and states.

### 2001 Gujarat Earthquake, India

**The Gujarat Earthquake Reconstruction and Rehabilitation Policy**

When an earthquake measuring 6.9 on the Richter Scale struck Gujarat, India, on January 26, 2001, and was followed by more than 500 aftershocks, the effect was devastating and somewhat unexpected, given the geological characteristics of the location where it struck. Approximately 13,800 people died and approximately 167,000 were injured. More than 1.2 million houses were damaged or destroyed and nearly all the civic facilities—schools, hospitals, health centers, and public buildings—were damaged, some extensively. The utility infrastructure, including water supply, electricity, and telecommunications, was completely disrupted.

The government of the state of Gujarat announced the Gujarat Earthquake Reconstruction and Rehabilitation Policy four months after the earthquake. The policy document, only 30 pages long, included the creation of the Gujarat State Disaster Management Authority. (It had actually been created in the month following the earthquake; the policy document formalized the entity). It proposed different reconstruction approaches for urban and rural reconstruction and in different regions of the state, depending on their seismic zone. The cost of rebuilding was estimated at US$1.77 billion, of which more than half was to be borrowed from IFIs.

**Policy objectives.** The stated objectives of the policy included building, retrofitting, repairing, and strengthening houses and public buildings, and improving the earthquake resistance of what was rebuilt. Other objectives related to revival of the local economy, reconstruction of community and social infrastructure, health support to those affected by the earthquake, restoration of lifeline and major infrastructure, gender empowerment, social attention to the poor, implementation of a comprehensive disaster preparedness and management program, and the need for long-term mitigation of a variety of risks to which the population was exposed.

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Guiding principles. Among the guiding principles of the policy were the need to involve people and representative institutions in decision making; the strengthening of civil society institutions; the importance of ensuring that the needs of the vulnerable were addressed; the necessity to give people information to make informed choices in rebuilding, including about disaster risk reduction; and the importance of involving the private sector, NGOs, and expert institutions in the reconstruction program. Lastly, it called for the highest levels of transparency and accountability in the reconstruction program through the use of appropriate institutional mechanisms and practices.

Housing sector policy. The housing sector was defined as encompassing debris removal, salvage, and recycling; construction of temporary shelters; reconstruction of more than 230,000 houses; repairs and strengthening of more than 1 million houses; and reconstruction and repairs of government staff quarters. The policy established that there would be a community-driven housing recovery process, under which earthquake-affected communities would be given a range of choices from complete or partial relocation to in-situ reconstruction. While acknowledging that there existed a predominant sentiment for minimal relocation, this policy gave communities the responsibility for deciding on their preferred option, using a participatory process. Selection of new sites would be undertaken with the support of village officials and the NGO or other agency assisting the village. Other aspects of the policy included:

- delegation of technical and financial powers for the housing reconstruction process to the district administration or Area Development Authorities;
- use of a community-based, owner-driven approach, with technical assistance from engineers provided by government, building centers, NGOs, etc.; and
- basing reconstruction on a tripartite partnership, including the government of Gujarat, the private sector (including NGOs), and the beneficiaries.

The government of Gujarat committed itself to carrying out the following measures.

<table>
<thead>
<tr>
<th>Commitment</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Removal of rubble</td>
<td>Included the commitment to environmental management and recycling to reduce construction costs</td>
</tr>
<tr>
<td>2. Setting up of temporary/interim shelters</td>
<td>Shelters for urban and rural homeless, provided through government agencies or NGOs, or provision of shelter material</td>
</tr>
<tr>
<td>3. Full reconstruction of collapsed and demolished houses</td>
<td>Provision of financial entitlement package adequate for core house, to which owners could contribute additional resources from their own resources or by borrowing</td>
</tr>
<tr>
<td>4. Repair of damaged units</td>
<td>Provision of financial entitlement package for repair</td>
</tr>
<tr>
<td>5. Retrofitting of undamaged units</td>
<td>Technical assistance to owners or cooperatives wanting to retrofit their properties for earthquake or cyclone resistance</td>
</tr>
<tr>
<td>6. Rebuilding of social and community infrastructure</td>
<td>Reconstruction of minimum infrastructure for each village, including primary school, water storage, roads, electricity, and building of infrastructure at relocated site and repair/retrofit for in-situ reconstruction</td>
</tr>
</tbody>
</table>

Assistance packages. The government of Gujarat announced five packages of assistance for reconstruction, retrofitting, and repairs of approximately a million houses destroyed or damaged in the earthquake. The amounts varied depending on the type of house, the extent of damages, and the location.

- **Package 1**: For villages in seismic Zones IV and V, where more than 50 percent of the houses collapsed
- **Package 2**: For villages in Zones IV and V, which opted for in-situ reconstruction
- **Package 3**: Villages situated in areas other than Zones IV and V, where individual houses were destroyed or damaged
- **Package 4-A**: Reinforced cement concrete frame structures (low- and high-rise) in urban areas, which include municipal corporations, urban development authority areas, and other municipalities (excluding Bhuj, Bhachau, Rapar, and Anjar in the Kutch District)
- **Package 4-B**: Load-bearing structures in corporation areas, urban development authority areas, and municipalities (except Bhuj, Bhachau, Rapar, and Anjar in the Kutch District)
- **Package 5**: Rehabilitation in the four worst affected municipal towns of Bhuj, Anjar, Bhachau, and Rapar in the district of Kutch, with a stress on urban town planning
Urban rehabilitation. In Kutch, four towns—Bhuj, Bhachau, Anjar, and Rapar—suffered large-scale devastation. The collapse of a large number of multistory buildings and the limited availability of land in these towns called for a different strategy for rehabilitation. Congested inner towns were redeveloped, and the residents were given the option of relocation. A number of residents living in multistory buildings were asked to construct houses on new plots, in view of new town planning rules, development regulations, and a reduced floor space index.

A number of public buildings were also proposed for relocation. The urban infrastructure was to be expanded and upgraded. Construction in these towns was owner-driven. Government facilitated the process by providing technical guidance, material specifications, and technical supervision for building earthquake-resistant buildings. See the case study on the planning process for the redevelopment of Bhuj in Chapter 7, Land Use and Physical Planning.

Resources

CHAPTER 2: ASSESSING DAMAGE AND SETTING RECONSTRUCTION POLICY
Having a coherent understanding of an affected region’s pre-disaster housing and community development system and the likely impact of a disaster on this system is often essential for developing an effective post-disaster housing and community reconstruction strategy or for diagnosing what is going wrong if reconstruction has begun and local actors are not satisfied with the results. Local development, housing, and land tenure issues that emerge in the aftermath of a disaster are often not new, but the disaster will exacerbate the weaknesses in the system, especially when there are challenges such as widespread poverty, extensive informality in the housing system, or a large number of housing units that need to be reconstructed.

**Objectives of a Housing Sector Assessment**

The general objective of the assessment is to assist government at all levels to improve the quality of outcomes from the response in the area of housing and community reconstruction. The assessment will increase the awareness of the agencies involved with reconstruction of the strengths and weaknesses in the local housing sector and land administration systems and show how they may affect recovery, while providing specific recommendations on short- and medium-term actions to be taken to improve the effectiveness of reconstruction program implementation that will contribute longer-term strengthening of the housing sector and improvements in the quality of the housing that is reconstructed.

The specific objectives of the assessment include the following:

A. Provide a comprehensive analysis of the country’s policy and institutional frameworks for the housing sector and the land administration system, with particular emphasis on:
   - the adequacy of these frameworks under normal conditions and their ability to be adapted to the demands of the post-disaster housing reconstruction process;
   - the implications of any relevant policies announced since the disaster;
   - the capacity of the organizations involved in the housing reconstruction; and
   - the specific challenges that have already arisen, or may be expected to emerge, as the post-disaster housing reconstruction program is planned and executed.

B. Provide concrete and specific recommendations on how to improve the response to the disaster in such areas as: policy modifications, institutional roles and responsibilities, coordination mechanisms, and needs for institutional strengthening, including capacity-building activities, financial strategies, or other areas.

**Methodology for a Housing Sector Assessment**

The assessment should focus on the policy and institutional frameworks for housing and community reconstruction. It is not intended to be a housing damage assessment, although the extent and nature of the damage may affect the recommendations, so this data should be analyzed and taken into consideration in the assessment. Similarly, while the principal area of concern is the reconstruction of permanent housing solutions for the affected population, not temporary shelter solutions, the two cannot be analyzed in isolation. Therefore, the consistency between the temporary housing strategy (if any) and the permanent reconstruction strategy should be analyzed.

Housing reconstruction takes place on a very local and even personal basis. The concerns and perspectives of local actors should have a strong influence on the reconstruction approach.

**Critical Elements of the Housing Sector**

The critical elements of the process by which housing and communities are constructed and reconstructed are considered to be the following: (1) local governance, (2) land administration, (3) housing construction system and practices, (4) housing finance, and (5) local infrastructure construction and operation. While this guidance puts relatively equal emphasis on all of these elements, one or more of them may need to be emphasized in the assessment, depending on the prior conditions in the country.
The consultants should use a variety of data collection methods to capture different types of information and social perspectives, and it should have a bias toward capturing the perspective of households, local government officials, and other local actors. A reconstruction approach not based on local reality, and not seen as workable at the local level, is unlikely to succeed. For that reason, it is suggested that the consultants reside in the disaster area while conducting the assessment.

**Expertise Required**

Specialists should be hired to carry out this assessment, due to the complexity of the issues and the need to organize and interpret a wide range of information. The specific expertise may vary, depending on the disaster situation. In general, a team of 5–7 people will be required to carry out this assessment in a timely manner. The team should include members with expertise in housing policy, housing finance, post-disaster reconstruction, local government administration, and local service provision. The team leader should have post-disaster housing reconstruction experience. One member should be responsible for handling poverty and social safeguards issues, including the analysis of social policies related to housing provision for low-income and vulnerable populations and the differential effects of the disaster and the reconstruction policies being proposed.

A counterpart in government who understands the policy issues related to the work and who can facilitate contacts and access to information must be appointed. Ideally, this person is supported by a technical committee that includes representation from the affected population.

**Scope of a Housing Sector Assessment**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Issues</th>
</tr>
</thead>
</table>
| A. Overview of the disaster and disaster zone | 1. Present a list of the disaster-affected zones identified by local government jurisdiction.  
2. Analyze the socioeconomic characteristics of the affected area, including income levels, economic base, quality of major and basic infrastructure.  
3. Provide data for the disaster zones on distribution and type of housing and infrastructure damage, and numbers of housing units and population affected, by income level and other relevant social characteristics.  
4. Provide maps of the disaster zones showing distribution of affected infrastructure, housing units, and population.  
5. Analyze and describe the legal and institutional framework that defines the roles and responsibilities of the relevant agencies in reconstruction. Describe the lead agency responsible for reconstruction and any specific tasks identified for it related to local reconstruction. Include in an annex any relevant degrees, policy statements, announcements, etc. |
| B. Policy frameworks and organizational arrangements | General  
1. With particular emphasis in the zone affected by the disaster, provide an overview of the roles and responsibilities of central, local, and any intermediate levels of government; the state of both operational and fiscal decentralization in the country; and the normal mechanisms for fiscal mobilization and distribution.  
2. Describe the pre-disaster situation of the municipalities, including information on financial, human, and technical capacities.  
3. Provide information on losses and damages of the municipality caused by the disaster, the functioning of the municipality after the disaster, and coping strategies.  
4. Based on the roles and responsibilities defined in the legal framework, analyze the capacity and magnitude of local government to comply with its obligations. |

**Sources of Information**

1. **Documentation.** Previous studies of the housing sector should be reviewed and may serve as the starting point for this assessment. Key documentation includes, among others, things at the national level, disaster damage, loss, and needs assessments; pronouncements and policies related to the disaster; laws and other material related to the legal framework for housing and land; and national policy documents; and, at the local level, local damage, loss, and needs assessments; registers of affected persons; policy documents; land use plans and policies and related ordinances; capital investment plans; and procedures related to building permitting and inspection.

2. **Interviews.** National and regional government officials (including representatives from appropriate ministries); municipal authorities (mayor, technical experts, public service organizations, counsel members); social leaders and social movement representatives; the affected population and their representatives; locally active international organizations; civil society organizations and NGOs; academic institutions; and representatives of the private sector.

3. **Observations.** Time should be dedicated to observations in the field and to taking testimony from unofficial actors, both of which can reveal needs and problems that might otherwise be overlooked.

4. **Other.** Collect and provide photographs and other documentation that contribute to illustrating the principal findings and/or supporting the conclusions of the assessment.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land use planning</td>
<td>5. Summarize the principal elements of land use policy, particularly with respect to planning; land use regulation; subdivision of land; risk management; and the roles of the central, regional, and local governments.</td>
</tr>
<tr>
<td></td>
<td>6. Describe the framework for disaster risk management (DRM) as it applies to land use planning and regulation, and the effectiveness of its implementation.</td>
</tr>
<tr>
<td></td>
<td>7. Identify specific land use issues caused by the disaster, including the need for relocation of housing or infrastructure.</td>
</tr>
<tr>
<td>Housing sector</td>
<td>8. Summarize the principal elements of housing sector policy, particularly with respect to housing construction and financing; and the roles of the central, regional, and local governments.</td>
</tr>
<tr>
<td></td>
<td>9. Analyze government policy concerning the provision of housing to low-income and vulnerable populations, including any subsidy programs or direct provision efforts that might be relevant to the reconstruction process.</td>
</tr>
<tr>
<td></td>
<td>10. Analyze and show graphically the normal process for land development and for both single- and multi-family housing construction, identifying common bottlenecks.</td>
</tr>
<tr>
<td></td>
<td>11. Describe the procedures for approving and issuing building permits for housing construction and improvement, especially as it relates to housing quality and DRM in housing design, materials, siting, etc., and the effectiveness of its implementation.</td>
</tr>
<tr>
<td></td>
<td>12. Analyze the engineering and non-engineered construction practices normally used in housing in the disaster zone, the practices for contracting construction, and the capacity of the construction industry.</td>
</tr>
<tr>
<td>Local infrastructure</td>
<td>13. Summarize the principal elements of policies that govern the provision of basic local infrastructure, particularly with respect to operations and financing (both capital and operational), and the roles of the central, regional, and local governments or other entities.</td>
</tr>
<tr>
<td></td>
<td>14. Analyze the requirements and/or any programs already contemplated for post-disaster infrastructure reconstruction and the suitability of these programs for the reconstruction of local infrastructure in the communities affected by the disaster, for both in-situ reconstruction and relocated housing.</td>
</tr>
<tr>
<td>Land ownership and tenure</td>
<td>15. Summarize the principal elements of policies that govern the provision and ownership of land; especially with regard to the state of the private market; the formal and informal institutional arrangements for sale, titling, registry, and inheritance of land; and the roles of the central, regional, and local governments or other entities.</td>
</tr>
<tr>
<td></td>
<td>16. Provide a typology of the official legal land tenure options in the country.</td>
</tr>
<tr>
<td></td>
<td>17. Describe particular local socio-cultural customs regarding land ownership and titling and any problems with land ownership and tenure commonly experienced before the disaster.</td>
</tr>
<tr>
<td></td>
<td>18. Analyze the impact of the disaster on these problems and any additional land tenure problems that have emerged since the disaster. This analysis in this and the prior item should cover problems related to the following issues: collective ownership; legal and illegal possession of private land; occupancy of public land; tenancy, including problems related to inheritance and death from the disaster; land titling; land registration; loss of land from the disaster; rural versus urban land; and proof of ownership, including loss of records at the household or municipal level, among others.</td>
</tr>
<tr>
<td>Housing finance</td>
<td>19. Analyze and describe the systems used to finance housing construction by different social classes and for both single- and multi-family housing and identify the impact of the disaster on this system. Include the use of property insurance if a system exists in the country.</td>
</tr>
<tr>
<td></td>
<td>20. Describe and analyze any financial assistance strategies announced or being contemplated by government to facilitate post-disaster housing reconstruction. Analyze the effectiveness of the strategies and their likely differential impact by type of housing, social class, or other relevant factor.</td>
</tr>
<tr>
<td>C. Post-disaster reconstruction process</td>
<td>1. Present a chronological summary of the concrete steps that have been taken to provide temporary or transitional shelter and/or to mitigate the housing-related impacts of the disaster on the affected population, identifying the agency responsible and the source of funding.</td>
</tr>
<tr>
<td></td>
<td>2. Describe the coordination mechanisms established between the central, regional, and local governments to organize the reconstruction program or to address land tenure issues.</td>
</tr>
<tr>
<td></td>
<td>3. Analyze intermunicipal linkages and describe collaboration among different municipalities, noting whether these bonds existed before the disaster or were created as a response to it.</td>
</tr>
<tr>
<td></td>
<td>4. Summarize the role of NGOs in the shelter sector and their anticipated role in reconstruction.</td>
</tr>
<tr>
<td></td>
<td>5. Describe any financial strategy for housing and community reconstruction announced at the national or local level and analyze its implementation to date.</td>
</tr>
</tbody>
</table>
Presentation of Findings and Recommendations

For each topic above, the consultants should provide a systematic summary of their findings and corresponding short- and medium-term recommendations that will improve the outcomes of the housing reconstruction program. The recommendations should be grouped in the way that the consultants believe will make them the most understandable during the review process and, in the final report, most useful for implementation. Once subject to an initial review, the recommendations should be presented in the final report as a work plan that identifies both the sequence of activities and the party or parties responsible for carrying them out. The work plan should include an initial budget for the implementation of the activities recommended.

The work plan and budget form the basis of an ongoing dialogue between government and the organizations that are providing financial support to the reconstruction program.

Expected Results and Outputs

The principal output is an in-depth housing sector and land tenure assessment for the disaster-affected area that contributes to a comprehensive understanding of strengths and limitations that are likely to influence the post-disaster housing reconstruction process, accompanied by related recommendations regarding policy and operational reforms that should be implemented in the short and medium term. In the initial report, the consultants will present their strategy, plan, and schedule for the consultancy. The assessment should be presented in draft and final forms.

Time will be of the essence in carrying out this assessment. The following schedule allows the consultancy to be completed in approximately two months. The following time intervals are ambitious, but can be adjusted, depending on the particular situation. Outputs will include:

- an initial report, within 7 days of the contract, in which the consultants present any recommendations for modification of the scope of work as well as a work plan and schedule for the presentation of outputs;
- a draft report, presented within approximately 21 days of the acceptance of the initial report; and
- a final report, presented within the earlier of 21 days of the receipt of comments on the draft report from the party or parties responsible for overseeing the assessment or 30 days of the presentation of the draft report.

The draft and final reports should be presented along with an executive summary or abbreviated version that can be widely circulated, in a language and format easily understandable by stakeholders.

An effective review process will help guarantee the success of the consultancy, and the consultants should take an active role in carrying it out, with assistance from government and the sponsor of the consultancy. This may entail various meetings with government, community, and other stakeholders; use of information technology; or other means to ensure wide distribution of the draft report and collection of feedback. Meetings may also be required once the report is finalized to more widely disseminate the findings and recommendations.

Annex 1 Endnote

1. The assessment methodology proposed here is based on Land Ownership and Housing, Final Report (Informe Final, Tenencia de la Tierra y la Vivienda), conducted in Peru to analyze the effect of the Ica/Pisco earthquake in 2008 by Centro de Estudios y Promoción del Desarrollo, under the supervision of UN-HABITAT and in collaboration with the Department for International Development and the Ministry of Housing, Construction and Sanitation.
A housing damage assessment is the necessary first step that leads to the eventual reoccupancy of buildings and that supports decisions about providing other housing solutions after a disaster. The assessment process is made up of a predictable set of activities, and procedures for a number of them can be established ahead of the disaster in order to speed up the initiation of the post-disaster housing damage assessment process.

Beside demonstrating to citizens that the recovery period is beginning, housing inspections serve other purposes, including (1) public safety: identify whether houses can be fully or partially occupied, or must be vacated until reconstruction takes place (generally the result of a separate housing safety inspection; see box, below); (2) planning: use the results to quantify the funds, time, and other resources required for recovery, particularly when damage to housing makes up a large component of reconstruction; (3) technical: provide information about the specific types of damage that have been sustained and therefore the types of technical interventions, technical expertise, and training that will be required in reconstruction; and (4) economic and social: provide data on the impacts of the disaster at the household level.

Developing an appropriate methodology for housing damage assessment is one of the most critical aspects of the post-disaster response. The process must be made transparent and participatory to establish trust with the affected community and to ensure that local knowledge is fully incorporated. It should contribute to disaster risk reduction (DRR), social inclusion, and gender neutrality. The tools should be tailored to local conditions and be designed to ensure reliability and accessibility by the affected population for both collection and review of data. The approach described here also has the benefit of providing a view of the situation from various perspectives. While the content and sophistication of the assessment tools vary from one disaster to another, it is recommended that all of the following tools be employed in most cases.

### Housing Damage Assessment Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>How the tool is applied</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initial reconnaissance walk</td>
<td>The initial reconnaissance entails a walk through the affected area to get a general sense of the type, extent, and range of damages. The intelligence gathered at this stage will help in the design of the household survey instrument and the damage classification system. <strong>Who does it? Assessors with engineers, local officials, and community members.</strong></td>
<td>Initial impression of types and extent of damage.</td>
</tr>
<tr>
<td>2. Habitat mapping²</td>
<td>Use habitat mapping to create a “bird’s-eye” view of the disaster damage based on local information by identifying each house, locating it geographically, and providing an initial categorization of damage. The map shows how the damaged houses relate to each other and to public buildings and common areas. Mapping can be carried out using any technology, from hand drawing to high-resolution GIS data, so long as the needed information is gained, although local information will be lost by using only a high-tech approach. Information from the habitat map should be transformed into a list that is cross-checked against a cadastral or the civil registry database. One mapping technology can also be used to validate another (artisanal mapping against the cadastral or GIS data). In a community with caste or other social distinctions, this activity can be conducted by sector and aggregated later. <strong>Who does it? Trained assessors, some of whom may be local officials and/or community members.</strong></td>
<td>Visual representation of location of damaged and undamaged houses and initial damage categories. List of properties, addresses, and relation to built environment.</td>
</tr>
<tr>
<td>3. Village transect³</td>
<td>Use the village transect to identify patterns of housing damage and relate the damage to settlement patterns, the local geography, environmental features, and other land uses. Elevation drawings or other visual tools can be used to convey the degrees and types of damage as they relate to these features. This information is used to make decisions about environmental management, as well as relocation, resettlement, and the organization of the reconstruction process. <strong>Who does it? Trained assessors together with community members.</strong></td>
<td>Site-specific data and relation of damage to environmental features and land uses.</td>
</tr>
</tbody>
</table>

² Developed with the support of the Rockefeller Foundation
³ Developed with the support of Habitat for Humanity International

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**Annex 2**

**How to Do It: Assessing Post-Disaster Housing Damage**

- **Tool**: Initial reconnaissance walk
  - **How the tool is applied**: The initial reconnaissance entails a walk through the affected area to get a general sense of the type, extent, and range of damages. The intelligence gathered at this stage will help in the design of the household survey instrument and the damage classification system.
  - **Output**: Initial impression of types and extent of damage.
  - **Who does it?**: Assessors with engineers, local officials, and community members.

- **Tool**: Habitat mapping
  - **How the tool is applied**: Use habitat mapping to create a “bird’s-eye” view of the disaster damage based on local information by identifying each house, locating it geographically, and providing an initial categorization of damage. The map shows how the damaged houses relate to each other and to public buildings and common areas. Mapping can be carried out using any technology, from hand drawing to high-resolution GIS data, so long as the needed information is gained, although local information will be lost by using only a high-tech approach.
  - **Output**: Visual representation of location of damaged and undamaged houses and initial damage categories. List of properties, addresses, and relation to built environment.
  - **Who does it?**: Trained assessors, some of whom may be local officials and/or community members.

- **Tool**: Village transect
  - **How the tool is applied**: Use the village transect to identify patterns of housing damage and relate the damage to settlement patterns, the local geography, environmental features, and other land uses. Elevation drawings or other visual tools can be used to convey the degrees and types of damage as they relate to these features. This information is used to make decisions about environmental management, as well as relocation, resettlement, and the organization of the reconstruction process.
  - **Output**: Site-specific data and relation of damage to environmental features and land uses.
  - **Who does it?**: Trained assessors together with community members.
### Tool
4. Household-level survey

**How the tool is applied**
The household-level survey provides data for both administrative purposes (tenure of property, family characteristics, category of damage) and technical purposes (housing materials, location and specific nature of damage, potential for repair). These data are collected on a standardized form tailored to the disaster, and the data are later entered into a database for the project. Several examples of standardized short and long forms are available. As part of this process, building damage levels are assigned. A wide range of persons can conduct the survey, if properly trained. However, even if engineers, architects, or building inspectors are brought in to conduct the surveys (their involvement is strongly recommended), they must be sufficiently trained and tested on the use of the survey instruments to ensure consistent results across surveyors. Involving in the surveying those who will later train builders is strongly recommended. The assessment must explain the physical mechanisms that caused the damage in order to provide data for reducing the vulnerability in designing reconstruction.

**Output**
Detailed property and household data.

5. Photographic documentation

**How the tool is applied**
Create a photographic database of each damaged house, ideally with the owner present in the photo. This helps to validate other data and can serve as the baseline for a visual monitoring system for the reconstruction process.

**Output**
Visual documentation of damage at the household level.

6. System to number, classify, and label buildings

- **If no numbering system** exists for lots in the affected communities, create a simple temporary numbering system for the purpose of managing the reconstruction process and assign numbers to houses during the household survey.

- Develop the [classification system](#) for levels of damage and train the surveyors in its use. Generally, there should be no more than three categories. The surveyors should be sufficiently trained and tested in the use of the classification system to ensure consistency in its application.

**Output**
Universe of numbered and classified houses.

### Building Safety Inspections

Building safety inspections are a public safety measure that is taken very soon after a disaster, to reduce the risk of death and injury to users, residents, and passersby due to building collapse, falling interior or exterior materials and equipment, or other unsafe conditions. They are more necessary in urban contexts where population is dense and buildings have multiple stories.

A placard is commonly affixed to each house once it has been inspected. The placard shows that the house has been surveyed and warns residents and others if there are limitations on its use. A common labeling system uses green/yellow/red placards corresponding to the level of risk. The use of local language and/or visuals will be necessary in contexts where illiteracy or multiple languages are found. Public officials or private sector volunteers (engineers, inspectors) may carry out the inspections, but, as in the case of damage assessments, inspectors should be sufficiently trained to produce predictable results.

Safety inspections are provisional and are not meant to provide information about the value of the damage or the building’s potential for being repaired. This information is gained during the housing damage assessment and/or later engineering studies.

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**Source:** Japan Council for Quick Inspection of Earthquake Damaged Buildings, n.d., Post-Earthquake Quick Inspection of Damaged Buildings.
Next Steps

It is important that the data collected via the assessment process be properly validated from secondary sources, including through consultation with the residents and owners. Given its potential value, the data should be entrusted to professionals in data management to ensure that their reliability and safety are preserved. (Remember that because this data will form the basis of assistance schemes, there may be incentives to access and manipulate it, especially once the assistance scheme is announced.)

Depending on the construction technology in the area, engineering and architectural expertise will likely be needed to translate the assessment data into estimates of time and materials required to carry out at least minimum safety repairs. In addition to repairs, the program may cover retrofitting of buildings at risk of future damage. This work should be specified and the costs estimated as well.

Numerous critical activities can be initiated once the housing assessment has been conducted, the results analyzed, recommended DRM measures identified, and cost estimates made. These include, among others:

- decisions regarding the reconstruction approach that government will promote, and the need for relocation and for transitional shelter options to be provided;
- design of the financial assistance strategy;
- determination of technical assistance requirements for builders;
- design of the training program for builders and construction inspectors; and
- design of the communications plan related to the assistance program and DRR measures.

Chapter 16, Training Requirements in Reconstruction, explains how housing damage assessment data are used in developing training for builders.

The housing assessment process does not necessarily eliminate the need for individual homeowners to hire engineers, contractors, or both to provide specifications and cost estimates for their specific reconstruction projects, particularly for engineered buildings.

Preparing for the Next Disaster

In anticipation of a future disaster, central and local governments can establish many of the tools used in the housing damage assessment and safety inspection processes, including mapping and assessment methodologies, design of survey instruments, design and printing of placards, procedures and systems for the management of statistical and photographic databases, and a reconstruction monitoring system.

Annex 2 Endnotes

2. Common participatory appraisal methods can be applied in carrying out this activity.
3. A transect is a line following a route along which a survey is conducted or observations are made. A transect is used to analyze changes in human and/or physical characteristics from one place to another. An urban transect usually follows one or more streets and will show changes in land use; the nature of buildings, such as houses and shops; or features such as schools, churches, community centers, and parks. A rural transect might follow a road, a section line, or a stream, and may show the kinds of crops in adjoining fields, farm buildings, vegetation, or changing features along a riverbank. For an explanation of the use of the transect in urban planning and zoning, see http://www.newurbannews.com/transect.html.
6. See the Chapter 9, Housing Design and Construction Technology, for a discussion of damage categories.
Guiding Principles for Communication in Reconstruction

- Effective communication in a reconstruction project is not about what governments and project managers “say,” but what beneficiaries “hear.”
- Two-way information flow builds trust, consensus, and active participation, key factors for positive outcomes in development programs, and limits the potential for setbacks and misunderstandings.
- An understanding of people’s perceptions is crucial to designing a communication strategy since these perceptions can dominate behavior, whether or not it seems rational to an outsider.
- The cultural and social context affects communications. Inadequate or improper understanding of this context can create risks to project implementation.
- The largest benefits from communication are realized when it is made an integral part of a development or reconstruction project from the first day.
- Communication experts should be at the table when decisions about reconstruction are made, giving them access to the information they will need to develop the external messages that support the desired outcomes.
- The communication campaign is always a work in progress that will need to be adapted as additional input is received from stakeholders and results on the ground are monitored and evaluated.

Introduction

The task of rebuilding homes and communities is complex, challenging, and fraught with potential pitfalls. In post-disaster situations the status quo shifts constantly, a challenge that makes strategic communication a crucial element in the response and reconstruction environment. Two-way information flow facilitates recovery and limits the potential for setbacks and misunderstandings. Good communication also helps ensure understanding and buy-in from governments, agencies involved in reconstruction, and the affected population.

The messages that governments and project managers send out to the affected community about reconstruction have less influence over how the community behaves than the messages these communities receive, whether from government or other sources. In other words, if project leaders and communication specialists do not engage stakeholders in the process, they will not be able to formulate messages that will be understood by the people they want to help and the results may be unpredictable.

Strategic communication builds trust, consensus, and active participation, key factors for positive outcomes in development programs. It promotes credibility, transparency, legitimacy, and ownership for the project and ensures that the right messages are reaching all relevant stakeholders.1 Particularly in a post-disaster situation, good communication is the foundation for acceptance, sustainability, and mutual understanding when rebuilding people’s lives. This chapter shows why communication should be initiated as early as possible in reconstruction projects and provides project managers, partner organizations, and governments with tools and guidelines for development and carrying out a successful communications strategy. The communications strategy used after the 2005 North Pakistan earthquake is used to illustrate many of the points made in the chapter.

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Key Terminology

| Communication | Communication encompasses all forms of human interactions, from the interpersonal to the mediated, and from the one-way linear flow to the two-way dialogic process. For development purposes, communication components include (1) external communication, (2) media relations, (3) grassroots communication, (4) institutional coordination, (5) capacity building, (6) community development, and (7) coordination with program implementation units. |
| Types of communication assessments | A Communication-Based Assessment (CBA) is an assessment in any sector that uses a variety of communication techniques to detect political risks, contextual issues, and perceptions in that sector that are not easily recognized by a normal assessment. The World Bank emphasizes the need for a CBA at the beginning of the project cycle. Although a CBA can be performed at any stage of the project, its value is highest when conducted early. A CBA uses two-way communication techniques (dialogue, focus groups, open questions, discussion groups) and generally provides qualitative findings. It takes about two weeks to conduct. A Communication Needs Assessment (CNA) is carried out to analyze the communication sector and understand its capacity and common practices. It focuses only on the media environment, infrastructure, communication policies, capacities, gaps, information flow, and networks. A CNA is part of a CBA. |

Key Decisions

1. **Government** should decide on the lead agency to develop and coordinate the post-disaster communications strategy and assign staff to carry it out. Other public agencies and levels of government may also designate focal points for communications activities.
2. The lead communications agency should decide with the lead disaster agency whether there is a need for technical assistance or institutional strengthening in communications, how the communications strategy will be financed, and whether and how to mobilize additional resources.
3. The lead communications agency should decide with the lead disaster agency whether communications should be included as an element of the initial post-disaster assessment.
4. The lead communications agency should decide what assessments will be conducted before defining the communications strategy.
5. The lead communications agency should confer with key stakeholders and the local private communications sector to agree on the role of the community, local governments, nongovernmental organizations (NGOs), and the private sector in defining and carrying out the communications strategy.
6. Agencies involved in reconstruction and other key stakeholders should agree on the outcomes that are being sought from the community (disaster risk reduction [DRR], changes in construction practices, community participation, etc.) and on the messages and forms of communications that should be used.
7. The lead communications agency should collaborate with agencies involved in reconstruction and other stakeholders to design the monitoring and evaluation (M&E) plan for the project communications strategy and agree on feedback mechanisms to be used during reconstruction.

Technical Issues

**One-Way versus Two-Way Communication**

Although the value of communication in development projects is widely recognized, it remains an underutilized tool that often focuses too narrowly on informing people rather than communicating with them.

Two divergent conceptions of communication predominate in the field.

- **One-way communication**: the practice of disseminating information. Messages are put out to inform recipients about the reconstruction process.
- **Two-way communication**: a model that allows project managers, governments, and all other stakeholders to communicate with each other about the reconstruction process.
These may seem to be opposing approaches, but they’re not. In post-disaster situations, the need for information dissemination and dialogue are both pressing. Project managers and government officials should agree as early as possible on a communications strategy that includes—as appropriate to the communications culture of the location—both one-way and two-way elements.

Communication should also be viewed as contributing to other goals of the reconstruction program, including transparency, accountability, good governance, community participation, consensus, and trust-building and as mitigating risks, such as corruption, excess bureaucracy, and political and reputational risks for agencies such as the World Bank and government.4 The case study on the Nation of the Cree, below, demonstrates how inadequate communications can delay a development project.

**Communication Capacity within Government**

Communications are used in various ways by government and the responsibility for communications may be found in various locations within the bureaucracy. The most visible locus for communications may be the public relations function of the Office of the President. Effective post-disaster communications is less about public relations and more about social communications; that is, meant not to simply publicize or create impressions, but to enlist certain groups to cooperate or change behavior. This distinction should be kept in mind when the lead communications agency is designated.

Ideally, the lead communications agency will have the internal expertise to coordinate all communication activities, including assessment, strategy definition, and implementation. However, assistance may be needed. Resource can include staff seconded from international organizations, or experts hired externally. The World Bank has development communication specialists who can help government conduct the CBA or CNA and define the communications strategy.

Communication experts should be part of the reconstruction decision-making process. They should develop protocols for communication with the affected population and should have access to the information that will allow them to develop the external messages that will support the desired outcomes.

The lead communications agency may also have a role in facilitating information flow within government and among government, donors, and other agencies involved in recovery and reconstruction. By developing protocols for government communication with partners and maintaining institutional relationships, the agency can help improve the consistency among institutions of both the messages to the affected community and the actual implementation on the ground.

It is important that government view the communication campaign as a work in progress that will need to be adapted as feedback is received from stakeholders and results are analyzed. The lead community agency should establish a knowledge-management system to process this feedback, which is then used to support timely corrective actions being taken on the ground.

**Case Study: 2005 North Pakistan Earthquake, Pakistan**

**Assessing the Cultural Context before Defining Communications Strategy**

Communities affected by the North Pakistan earthquake were spread out over 20,000 sq. km. of mountainous and rough terrain. Most communication infrastructure, including radio and television, was damaged or destroyed. Within weeks, the Earthquake Reconstruction and Rehabilitation Authority (ERRA) and the donor community realized that a large communication effort was necessary to start an efficient owner-driven rural housing reconstruction project. A CBA was conducted by ERRA with support from a communication specialist working with the World Bank-administered Water and Sanitation Program in India. The CBA concluded that people would need to be motivated to rebuild their lives and would have to be sensitized to new and safer methods of building homes in this disaster-prone area. Survivors were rooted in a very traditional and—from an outsider’s point of view—conservative lifestyle. Traumatized by high levels of mortality and destruction, people feared that their value system was also threatened. The reconstruction strategy, therefore, had to address prejudices and fears over “new ways.”

Communication-Based Assessments

People will likely be affected by the disaster in many ways: lost homes; injured or dead family members, neighbors, and friends; destroyed livelihoods; food insecurity and suffering from mental and physical health problems. These experiences will affect people's needs, opinions, and perceptions, which in turn will affect their ability to participate in the programs that will help them recover.

A CBA is used to identify knowledge, perceptions, fears, and expectations of main stakeholders, and contextual and situational knowledge, much of which cannot be easily detected with other forms of assessment. An understanding of stakeholders' perceptions is crucial to designing a communications strategy since these perceptions can dominate behavior, whether it seems rational to an outsider, or not. A CBA captures this qualitative information and can help government and other agencies tailor the communications strategy for the reconstruction program. But more than that, it also provides knowledge that can be used to improve the design of reconstruction projects. Using this type of information helps ensure broader impact and sustainability of interventions and helps mitigate political and reputational risks. See Annex 2, Culture and Other Contextual Factors in Communication.

The critical areas to analyze and understand in order to develop an effective communications strategy are listed briefly in the following table. For detailed instructions on conducting a CBA, see Annex 1, How to Do It: Conducting a Communication-Based Assessment.

<table>
<thead>
<tr>
<th>Area to analyze</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political risk, challenges, and</td>
<td>Includes such issues as perceptions of government's disaster response and plans,</td>
</tr>
<tr>
<td>opportunities</td>
<td>and perceptions of how government and other service providers have performed since</td>
</tr>
<tr>
<td></td>
<td>the disaster</td>
</tr>
<tr>
<td>Stakeholder analysis</td>
<td>Inventory and analysis of stakeholders who will be directly and indirectly</td>
</tr>
<tr>
<td></td>
<td>affected by the reconstruction program</td>
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<tr>
<td>Media, communications channels, and</td>
<td>Analyzes the range of ways groups communicate formally with one another in the</td>
</tr>
<tr>
<td>local capacity</td>
<td>society being assessed, as well as issues related to local capability</td>
</tr>
<tr>
<td></td>
<td>and acceptability of media institutions</td>
</tr>
<tr>
<td>Social and participatory</td>
<td>Provides an understanding of informal systems and community communications</td>
</tr>
<tr>
<td>communication</td>
<td>practices</td>
</tr>
</tbody>
</table>

Who should conduct the assessment? A CBA can be conducted by communication specialists within the lead agency, outside consultants (hired locally or internationally), or qualified members of a donor project team. National experts with communications experience in prior emergencies may be available, even if they are no longer acting in an official capacity.

Timing the assessment. World Bank research shows clearly that the largest benefit of strategic communication is gained when communication is considered an integral part of the project or program from its inception. Ideally, a CBA is conducted as an integral part of the initial multi-sector damage and loss assessment. When the CBA is conducted at a later stage or separately from the initial assessment, governments and project managers should be prepared to make revisions later so that the recommendations of communication specialists can be implemented. Various assessment methodologies are described in Chapter 2, Assessing Damage and Setting Reconstruction Policy.

Time pressure will be great and key actors may consider communications a peripheral concern. Be aware that a focus on speed and physical damage can be costly if perceptions, knowledge, attitudes, and expectations are not taken into account.

Designing the Communications Strategy

Once the CBA is completed, the objectives of a communications strategy should be formulated. The findings of the CBA may produce a numerous objectives that need to be pursued to achieve the project goals. However, they might not all need to be pursued at the same time.

The communications strategy for a program or project should answer the following questions: Which audiences need to be reached and which stakeholders need to be engaged? What is
the required behavior change? What messages are appropriate? Which channels/tools of communication will be most effective? Over what time frame will implementation take place? How will implementation of the communication strategy be monitored and evaluated? Implementation includes all activities necessary to engage stakeholders (for example, design, production, and distribution of communication materials and training and hiring of staff).

Who should design the strategy? The communication capacity of the lead communications agency needs to be evaluated and, if necessary, complemented by hiring staff or acquiring additional services, whether of outside consultants or staff on secondment from other agencies. An experienced strategic communication specialist should draft and design the strategy in cooperation with project managers and local counterparts with experience in the disaster field. It is advisable that the communication specialists who conducted the assessment be involved in designing the strategy.

Throughout the design phase, the lead communications agency should consult closely with communities to determine whether the strategy is addressing the right audiences and stakeholders with the right messages. The steps and associated activities and tools in the design of the communications strategy are shown in the following table.

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Define and formulate the objectives (SMART: specific, measurable, achievable, realistic, and timely) and then transform those objectives into outcomes.</td>
</tr>
<tr>
<td>2.</td>
<td>Define primary and secondary stakeholders/audiences.</td>
</tr>
<tr>
<td>3.</td>
<td>Evaluate whether the changes sought are related to awareness, knowledge, attitudes, behaviors, mobilization, collaboration, or mediation. See Chapter 16, Training Requirements in Reconstruction, to understand the importance of communications in builder training programs.</td>
</tr>
<tr>
<td>4.</td>
<td>Define whether the communication approaches/tactics are linear, interactive, or both.</td>
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<tr>
<td>5.</td>
<td>Select the appropriate media from among those available.</td>
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<tr>
<td>6.</td>
<td>Design key content/message and determine the most effective way to package it.</td>
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<tr>
<td>7.</td>
<td>Define realistic results for the strategy and develop a means to monitor and evaluate progress toward their achievement.</td>
</tr>
</tbody>
</table>

Implementing the communications strategy. A Communications Action Plan (CAP) guides the implementation of the communications strategy. The CAP covers institutional coordination, media relations, grassroots communication, capacity building, external relations, and coordination with program implementation units (environmental, resettlement unit, etc.). The CAP details the production, training, hiring, budgeting, and timing of all initiatives. The nature of a post-disaster intervention will lead to overlaps and doubling of messages. Lessons learned show that too much communication is better than too little. However, retracting or correcting information can be difficult. “Silence” promotes rumors that can be exploited for political or economic reasons, which can lower community participation levels. The case study, below, on three earthquakes in Iran shows how a carefully planned community-based communications program overcame public unrest over the perceived lack of information from government.

A system to collect feedback should be implemented as part of the plan. Messaging, audiences, and tools will have to be adapted according to feedback from beneficiaries and implementing agencies. Agencies should also share the feedback they are getting. In the case of the Pakistan earthquake, the need for internal communication was quickly recognized, and a meeting schedule, knowledge management cells, and workshops were held to promote unity and synergies among all partners.

Who should implement the strategy? Depending on the institutional situation, a wide set of actors may be involved in implementing the communications strategy and tasks should be distributed to take advantage of the capabilities of various actors while being cost effective. The lead communications agency will be in charge of the overall approach and budget for the campaign. This agency is likely to define scopes of work for any outside services hired and to oversee procurement.

CHAPTER 3: COMMUNICATION IN POST-DISASTER RECONSTRUCTION

When task managers were asked what can be done to increase ownership of disaster prevention and mitigation components in natural disaster-related projects, they mentioned “Develop good communication strategies” more often than any other action.

### The Communications Action Plan for the 2005 North Pakistan earthquake

#### Activity Details of approach

1. **Review and confirm objectives**
   - Motivate and make people aware of available assistance including eligibility
   - Ensure that people build better/earthquake resistant houses
   - Ensure that people know about training and information tools to qualify for assistance

2. **Review and confirm primary and secondary audiences**
   - Affected population, households

3. **Activities and Approaches**
   - **What activities are needed (media production, message design, air time booking, translation, etc.)**
     - Advertisement in print media and electronic media
     - Media coverage
     - Media PR
     - Road shows (live programs in affected areas)
     - Billboards, posters, brochures (multilingual)
     - Social mobilization with events at mosques, etc.
     - Helpline, website
     - Information kiosks
     - Grievance redress mechanism (helpline numbers -- an excellent two-way communication tool with beneficiaries providing valuable feedback, resulting in resolution turnaround within a week)
     - Village reconstruction committees
     - Workshops and seminars

4. **Resources needed (human and material)**
   - **Experts in audiovisual design and production (experts in training, related materials, etc.)**
     - Post-Earthquake Public Information Campaign: US$1.8 million (little more than 1% of the housing reconstruction total budget (US$1.4 billion) as of November 2007
     - WSP/World Bank communication specialist provided client support to kick start a public information campaign (including hiring firm for design and dissemination)
     - The World Bank communication specialist worked with counterparts of the ERRA the central institution that was tasked with the response
     - Outsourcing versus capacity building. Due to limited time (approaching winter and thousands still without shelter) the implementing agency hired skilled communication staff internally
     - A knowledge management unit was established after about one year, headed by a senior manager and 5-6 researchers and writers
     - Training sessions were held for government communications staff in media relations, interviews, case studies, presentation, and community participation

5. **Party responsible (action promoter)**
   - ERRA established by the Pakistani government

6. **Time frame**
   - **Sequence and time needed for each activity**
     - Phase 1: General messages on policy and rural housing program
     - Phase 2: Motivate and mobilize people to access grants by rebuilding in better ways
     - Phase 3: Advanced messages on training for safe reconstruction and culturally sensitive behavior change

7. **Expected results from strategy**
   - **Affected Population:**
     - New and safer houses
     - Adoption of new building behavior
     - Feeling informed of reconstruction project
     - Developing ownership
   - Government, partners, donors, etc.:
     - Functioning communication protocol
     - Conducting and ongoing communication campaign to support the flagship rural housing program

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Depending on the scope of the disaster, the lead communications agency might delegate the distribution of specific messages to local organizations. For example, implementation at the grassroots level could be done by local NGOs partnering with local government or by an advertising agency hired to produce and distribute communications material in specific areas. Communities might be asked to select representatives or form committees that will function as intermediaries with their peers. Religious or tribal leaders may agree to distribute messages in meetings and through social networks.

**Case Study: 2005 North Pakistan Earthquake, Pakistan**

*Ad Hoc Communications Precede a Communications Action Plan*

In the aftermath of the devastating 2005 earthquake in Pakistan, ERR and international donors quickly realized the immediate need for communicating with the surviving population, but also recognized that there was little time for developing a proper plan. The level of destruction and the difficult terrain made it hard to disseminate information and to engage with beneficiaries. The lack of information flow in both directions led people to feel frustrated over a perceived slowness in the response.

To bridge this gap, the Pakistani military used helicopters to reach remote areas to distribute information to beneficiaries and to assist with the initial needs assessment. Later, local NGOs partnered with the firm that was hired by ERR to produce and disseminate information and assisted with implementation at the grassroots level. When radio and television were restored, the firm implemented all mass media aspects of the campaign. Culturally acceptable “heroes” were developed for educational radio shows. These characters were immensely popular. For example, a wise mason was created for posters, and he became a lead figure for “correct construction.” In the early days of the campaign, the radio show addressed concerns of beneficiaries, expressed either to the local authorities or via a help line set up to answer questions.

This case demonstrates how, in some cases, the urgency of a situation does not permit development of a fully sequenced communication action plan. Sometimes initiatives have to be implemented ad hoc, while an actual plan (in this case, mainly the hiring of an advertising firm) is still being developed.


**Human Resources and Professional Services**

One of the most challenging tasks in a post-disaster response is finding qualified staff and support services fast enough. The procurement process recommended for long-term development initiatives might need to be adapted to the post-disaster conditions. Single-source selection and direct purchase of services and personnel might be the only viable option, particularly in the beginning of the project. However, other procurement methods can be introduced at later stages in the communications action plan, when there is more time. Procurement procedures for World Bank projects can be found online and are summarized in Chapter 23, Procurement in World Bank Reconstruction Projects.10

Hiring consultants will be one of the first and most pressing tasks. The terms of references (TOR) must be specific to the disaster and the requirements of the project. Three main guiding principles should apply: (1) the TORs should contain sufficient background information on the project to enable consultants to present responsive proposals, (2) the scope of work should be consistent with the available budget, and (3) the TORs should take into account the organization of the client implementing the communication component and its level of technical expertise and institutional strength.11 This chapter provides guidance for developing the scope of work.

The very nature of a post-disaster communication project will require personnel to show a high degree of flexibility and willingness to adapt to demanding circumstances. More than in non-disaster projects, the communication specialist to be hired should understand crisis communications, political risk management, and internal communications, and should have coordination skills. Other beneficial skills include stakeholder mapping and engagement, communications for operations, media management, spokesperson/presentation skills, and donor engagement.12

**Monitoring and Evaluation**

The M&E process should be ongoing and should mirror the project cycle. Communications outputs are best measured if there are constant feedback channels that include quantitative and qualitative indicators. For example, it is important not only to measure how many radio spots have been aired, but whether stakeholders have changed behavior and adopted new technologies. Project managers and government authorities should also pay attention to whether the attitudes, perceptions, and

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fears that were examined during the assessment have been successfully addressed in the campaign. Practitioners should establish ways to receive periodic feedback from stakeholders to be responsive to the highly contextual nature of the initiative. Often, the lead disaster response agency does not have the capacity to analyze the information it receives. It is important to set up an internal system of information sharing, ranging from an IT system to regular information exchange meetings that allow for vertical and horizontal flow of input. This will help making necessary and meaningful changes to the project and the communications strategy at an early stage and throughout the project cycle.

Case Study: 2005 North Pakistan Earthquake, Pakistan
Using Beneficiary Feedback for Monitoring and Evaluation
The challenging environment created by the 2005 North Pakistan earthquake and the need for fast dissemination of information made it difficult to develop complex standards and benchmarks for the evaluation process. However, ERRA realized that it was important to monitor feedback to detect information gaps and to adapt its information campaign. ERRA focused on analyzing calls it received at its Islamabad offices from the 24-hour help lines that had been established all over the affected area. The feedback, questions, and comments people provided helped ERRA determine the level of understanding on the side of beneficiaries and, indirectly, whether the information campaign and stakeholder engagement had been effective. The communication team at ERRA updated its Web site and other information material accordingly. The results were shared with program managers who were able to address the issues raised by callers. Very often a query or concern that was voiced by several people would be addressed through a very popular interactive radio show. ERRA also set up an internal knowledge management mechanism that allowed for easy access to information at all administrative levels.


Risks and Challenges

- Missing the full picture in conducting the damage and loss assessment by asking only quantifiable questions and using only one-way communication.
- Government focuses on media relations and overlooks the social aspects of communication.
- Leaving post-disaster communications to a central disaster agency that lacks the capacity and skill to design and execute the communications strategy.
- Project teams believe that they know what the affected population wants without asking, and design reconstruction projects undesirable the affected population.
- Assuming that if the basic goal of a reconstruction program (rebuilding homes) is widely accepted, then all other aspects of the project (management, assistance policies, intended behavior change, and reconstruction approach) are widely accepted as well.
- Not understanding the context and contextual factors and how they affect reconstruction (for example, language barriers, perceptions of corruption, ability of religious groups to work together).
- Attempting to implement a communications strategy inconsistent with normal communication culture (for example, highly dialogue-driven in a country with a history of top-down communication).
- Underfunding communication activities.
**Recommendations**

1. See communications in housing reconstruction as a tool that can improve stakeholder participation and ultimately the suitability of the outcomes.
2. At the same time, realize that two-way communication (dialogue) is not only about achieving the project’s objectives but also about giving voice and dignity to vulnerable and marginalized people.
3. Don’t allow the urgency to implement to shortchange communications.
4. Adopt a multi-track, dialogue-driven communications strategy, which allows beneficiaries to provide input, ideas, and feedback, rather than employing a one-way (information dissemination) approach.
5. In developing the communications strategy, focus first on the messages that will be effective with people, before selecting media.
6. Adapt communication tools to the targeted audience and its preferred and trusted ways of communicating.
7. Tailor the communications strategy to reflect contextual variables.
8. Incorporate communications as early as possible in the process and sustain it throughout the project cycle. Be willing to redefine and adapt the strategy during the project as results are realized.
9. Ensure that communications within government and with other funders is open and results in a unified message to the affected population.
10. Incorporate feedback about the effectiveness of the communications strategy in a timely manner to improve reconstruction outcomes.

**Case Studies**

**2003 Bam Earthquake, 2005 Zarand Earthquake, and 2006 Lorestan Earthquake, Iran**

**Community-Based Information Management and Communication**

In the aftermath of the 2003 earthquake in Bam, Iran, there was a need for an active exchange of information and viewpoints between the affected communities and local authorities. To that end, the United Nations Development Programme (UNDP) supported a community-based information management and communications initiative. This initiative became particularly important after people’s perception of a lack of information on the distribution of relief items provoked demonstrations in front of public offices early in 2004 in Bam. The aim of the communications initiative was to empower the affected communities through participation and enhanced access to information on recovery and reconstruction using information and communication technologies (ICT). Information on government policies and activities, updated damage reports, entitlements, land status, and rehabilitation schemes was made available, using an information Web site in Persian, print and electronic information products, and ICT-based kiosks and information boards located throughout the affected areas. The project produced and published a biweekly newsletter with the help of local volunteers trained as journalists (all of whom have become professional journalists in the area). The Swiss Agency for Development and Co-operation supported the initiative, which was replicated later following the Zarand (2005) and Lorestan (2006) earthquakes, with initial support from the UNDP and subsequent support from the Housing Foundation of the Islamic Revolution. Activities in these cases also included information centers and notice boards, and distribution of such products as a pamphlet on “dos” and “don’ts” before, during, and after earthquakes.

2002 Hydro-Quebec vs. Nation of the Cree, Canada
The Cost of Not Communicating
In the early 1990s, after years of disagreement and diverging views over one of the world’s largest energy infrastructure programs, the indigenous Cree population of Northern Quebec forced Hydro-Quebec, a leading company in the energy sector, to halt construction all together. According to John Paul Murdoch, Legal Counsel of the Cree Nation, Hydro-Quebec faced construction delays of almost 20 years and had to spend an additional US$268 million to adequately address communication gaps, concerns over mercury pollution, and potential loss of livelihoods to the Cree. Murdoch told an audience at a World Bank Energy Week in 2005 that the failure to communicate properly had become costly for the company. In 2002, Hydro-Quebec and the Cree Nation entered a “New Relationship Agreement” that addresses concerns over safety, economic and social benefits, and a mechanism for a permanent standing liaison committee, paving the way for the project to proceed.


Resources


Key Organizations with Best Practices and Research

A Communications-Based Assessment (CBA) for a post-disaster housing reconstruction project will take about two weeks and should be conducted either before or in parallel with other early assessments. Some information relevant to the reconstruction process may be readily available.

To avoid duplicating efforts, cooperate closely with the local and international relief community and government agencies (not only groups working in the shelter field). When the United Nations cluster system has been activated, the Humanitarian Information Centre (http://www.humanitarianinfo.org) will be both a source of information and a platform for sharing information that is collected.

The assessment should identify and analyze all relevant aspects of the social context. An open-minded approach at the beginning of the assessment is crucial for grasping the complexity of the entire situation. \(^2\) Annex 2, Culture and Other Contextual Factors in Communication, suggests social factors that form part of the context in which communications take place, and may be important to consider.\(^3\)

The critical areas that must be analyzed and understood to develop an effective communications strategy and use communications to improve the project design include the following.\(^2\)

### Scope of a Communications-Based Assessment

<table>
<thead>
<tr>
<th>Topic</th>
<th>Issues to analyze</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political risk, challenges, and opportunities</strong></td>
<td>This includes such issues as perceptions of government’s disaster response and plans, perceptions of how government and other service providers have performed since the disaster, mechanisms used by government to communicate with stakeholders in general and since the disaster, and key knowledge gaps.</td>
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<tr>
<td></td>
<td>■ Challenges and risks can include the geography of the affected areas, high mortality, loss of livelihood, large displacement, poverty, resistance to behavior change (introducing new and unknown forms of building techniques), necessity to resettle, unclear land rights, and complex owner-tenant relations.</td>
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<td>■ Obstacles can include real and perceived corruption and mismanagement, lack of income opportunities, lack of credible communication channels, absence of community representatives, non-existing local fiscal capacity for distribution, lack of building material, and lack of know-how for new techniques.</td>
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<td></td>
<td>■ Opportunities can arise from the crisis. In disaster-prone environments, beneficiaries might be open to new technologies and improved building approaches.</td>
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<tr>
<td><strong>Stakeholder analysis(^3)</strong></td>
<td>For the communications strategy, an analysis is needed of:</td>
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<tr>
<td></td>
<td>■ primary stakeholders and audiences (the affected population, household and grassroots representatives, government officials, civil servants, national and international media, civil society, academic institutions, professional groups, religious groups, business community, NGOs, partner organizations, donors);</td>
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<td></td>
<td>■ “hidden” or secondary stakeholders (less-affected non-beneficiaries who might feel overlooked during the project and might act as spoilers);</td>
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<td></td>
<td>■ vulnerable groups (female-headed households, orphans, disabled, chronically ill, the extremely poor, and socially marginalized);</td>
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<td></td>
<td>■ public opinion leaders or allies (societies listen best to their own leaders);</td>
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<td>■ stakeholder perceptions, expectations, attitudes;</td>
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<td></td>
<td>■ socially relevant topics or controversies related to the reconstruction project (relocation, land rights issues, service delivery in new neighborhood, social/tribal/religious fabric of project area, environmental issues, cultural heritage, customs, and livelihoods); and</td>
</tr>
<tr>
<td></td>
<td>■ past and ongoing stakeholder behavior in similar situations or projects.</td>
</tr>
</tbody>
</table>

For access to additional resources and information on this topic, please visit the handbook Web site at www.housingreconstruction.org.
### Topic: Issues to analyze

**Media, communications channels, and local capacity**

This element of the CBA should encompass the range of ways one group communicates with another in the society being assessed, as well as issues related to local capability and acceptability of each, including:

- communication channels that stakeholders normally use to receive and disseminate information;
- the degree of trust in each channel;
- the availability of channels or limitations since the emergency;
- looking beyond mass media at alternative communications channels (for example, SMS and social media);
- options for face-to-face communication (particularly for affected population with trust issues and to communicate behavior change messages, for example DRR, environment issues, and new building techniques);
- capability and experience of media organizations and consultants, including any involved in social communications, social marketing, market research, and public relations;
- The nature of the relationship between government and the various media; and

Communications channels, including electronic (TV, radio), road shows (live programs), advertising (billboards, posters, brochures, leaflets), *shuras*, ceremonial and cultural events, media coverage, and mobile phones (text messaging).

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**Social and participatory communication**

Not all communications media are formally organized, and an understanding of informal systems and community communications practices is an important element of the assessment. This includes:

- existing social communication mechanisms (such as schools, churches, markets, and social interactions);
- networks (such as religious, tribal, neighborhood, professional, and school);
- traditional forms of dialogue (such as meetings with elders, religious leaders);
- formal and informal ways of designating community leaders and representatives;
- decision-making mechanisms at the community level (are they producing communication products that can be used in a communications program?);
- beneficiary consultation mechanisms or involvement in development initiatives (current, past, in other areas during the post-disaster phase);
- prior initiatives to identify interests of or conflicts between community and/or subgroups; existing joint projects or plans of the community; and
- familiarity with help lines, toll-free alert numbers (to report corruption, misuse, problems).

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### Expertise Required

A CBA can be conducted by communication specialists within the lead agency, outside consultants (hired locally or internationally), or qualified members of a donor project team. National experts with communications experience in prior emergencies may be available, even if they are no longer acting in an official capacity.

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**Annex 1 Endnotes**

1. See Annex 2, Culture and Other Contextual Factors in Communication.
3. Stakeholder analysis is also discussed in Chapter 12, Community Organizing and Participation.
4. This element of the assessment is the CNA mentioned in the Key Definitions section earlier in this chapter.
Misunderstanding the social and cultural context can create risks in reconstruction. This misunderstanding may cause unintended consequences or make implementation more difficult. As a result, the social and cultural factors take on great importance when the communications strategy is being designed.

Both aid agencies and local people may have trouble identifying contextual factors. For outsiders they are difficult to detect; for insiders they are a “given.” These factors are not problematic per se; problems only arise when assumptions made by those attempting to communicate with the population or to implement a reconstruction project understand the context to be different than what it really is.

The CBA is the opportunity to identify these factors, evaluate their importance, and understand how they affect both perception and behavior. They should be taken into consideration in communicating with the public and the affected population about recovery and reconstruction. Some of the contextual factors that might be evaluated include the following.

<table>
<thead>
<tr>
<th>Contextual factors</th>
<th>Examples of how they may affect communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peculiarities of the disaster effect, for example:</td>
<td>If many heads of household are lost in the disaster, non-traditional approaches to reconstruction may need to be promoted.</td>
</tr>
<tr>
<td>■ Disproportionate loss of certain social groups</td>
<td>If common local building materials are damaged, use of alternative materials will have to be explained and promoted.</td>
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<tr>
<td>■ Affect of disaster on materials availability</td>
<td>Repeated disasters may make the population reticent to rebuild, so motivational messages may be needed.</td>
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<td>■ Changes in labor market due to migration</td>
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<td>■ Disaster history in the region</td>
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<tr>
<td>Institutional/governance context, for example:</td>
<td>A conflictive relationship between local and national governments could produce contradictory messages that confuse the public.</td>
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<tr>
<td>■ Local/national government relations</td>
<td>Local governments may be suspected of corruption, so accountability measures may need to be improved to give assurance to the population.</td>
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<tr>
<td>■ Degree of sectoral and fiscal decentralization</td>
<td>Newer community-based organizations may not have the credibility in the community to deliver certain information.</td>
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<td>■ Roles and responsibilities of governmental entities, levels of government</td>
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<tr>
<td>■ Maturity of community organizations</td>
<td></td>
</tr>
<tr>
<td>■ Trust in government and perceptions of corruption</td>
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<tr>
<td>Political context, for example:</td>
<td>Concerns about violence may discourage community involvement.</td>
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<tr>
<td>■ History of ongoing violence</td>
<td>Opposition parties may politicize the disaster and affect the acceptance of messages.</td>
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<tr>
<td>■ Role of political parties</td>
<td>Well-organized communities may move faster than government and perceive later government involvement as “interference.”</td>
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<tr>
<td>■ Level of social organization or activism</td>
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</tr>
<tr>
<td>Sociological context, for example:</td>
<td>In societies where class, race, and/or status are polarized, communication may need to be tailored to specific groups.</td>
</tr>
<tr>
<td>■ Demographic factors</td>
<td>Members of religious groups may prefer that messages come from their religious body, rather than from government.</td>
</tr>
<tr>
<td>■ Relationships of religious groups</td>
<td>Men may keep their wives from participating in projects that strongly promote gender equality.</td>
</tr>
<tr>
<td>■ Class, race, and status relationships of those affected</td>
<td></td>
</tr>
<tr>
<td>■ Gender relationships</td>
<td></td>
</tr>
<tr>
<td>■ Perception of rights of disabled</td>
<td></td>
</tr>
<tr>
<td>Cultural factors, for example:</td>
<td>Cultural differences in the perception of time will affect planning efforts.</td>
</tr>
<tr>
<td>■ Cultural practices and values, such as perceptions of time</td>
<td>Relationship to money and beliefs about accepting gifts differ enormously from one culture to another.</td>
</tr>
<tr>
<td>■ Aesthetic value systems, such as Feng Shui</td>
<td>Individuals may have beliefs about the orientation of houses, position of doorways, etc. that affect their interest in new houses.</td>
</tr>
<tr>
<td>■ Place of money in cultural life</td>
<td>Resident satisfaction surveys may not reveal families’ real opinions.</td>
</tr>
<tr>
<td>■ Superstitions</td>
<td>Social judgments about who deserves assistance may be based on intangibles, such as a family’s history in the community.</td>
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<tr>
<td>■ Language barriers</td>
<td></td>
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<tr>
<td>■ Perceptions about social change</td>
<td></td>
</tr>
<tr>
<td>Contextual factors</td>
<td>Examples of how they may affect communications</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Economic context, for example:</td>
<td>Cultural perceptions about gift-giving may affect rates of participation in assistance programs.</td>
</tr>
<tr>
<td>■ Wealth distribution in disaster area</td>
<td>Women may be financial decision makers of household, but not be exposed to communications media that are used.</td>
</tr>
<tr>
<td>■ Effect of disaster on economic base</td>
<td>The inability for women to reach markets or to go to markets alone may affect use of assistance strategies, such as vouchers.</td>
</tr>
<tr>
<td>■ Importance of homestead for livelihood</td>
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<tr>
<td>■ Migration and other work/living patterns</td>
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<tr>
<td>■ Role of remittances in local economy</td>
<td></td>
</tr>
<tr>
<td>■ Market culture</td>
<td></td>
</tr>
<tr>
<td>Territorial/land use issues, for example:</td>
<td>Expectations about the standard of housing may be quite different in urban and rural communities, even in same country.</td>
</tr>
<tr>
<td>■ Specifics of disaster location (urban/rural)</td>
<td>Messages about land and tenancy need to be fine-tuned to local land-ownership practices.</td>
</tr>
<tr>
<td>■ Access into/out of disaster location</td>
<td>Perceptions about the natural environment vary between cultures, and affect environmental messages.</td>
</tr>
<tr>
<td>■ Ecological context</td>
<td></td>
</tr>
<tr>
<td>■ Legal status of land occupancy of affected population</td>
<td></td>
</tr>
<tr>
<td>Housing/community culture, for example:</td>
<td>Where women don’t attend community gatherings, opinions expressed in meetings may not represent the entire household.</td>
</tr>
<tr>
<td>■ Household decision maker on housing issues</td>
<td>Perspectives about suitable housing assistance schemes will vary from one location to another.</td>
</tr>
<tr>
<td>■ Adequacy of housing situation before the disaster</td>
<td>Localities where income segregation in housing is the norm may not be persuaded to relocate in “mixed income” communities.</td>
</tr>
<tr>
<td>■ Role of communal spaces within and around the settlement</td>
<td>The disaster may change people’s perceptions of the value of vernacular housing, in favor or against.</td>
</tr>
<tr>
<td>■ Relationship of housing styles and settlement layout to culture or climate</td>
<td></td>
</tr>
</tbody>
</table>
Guiding Principles for the Social Dimension of Housing Reconstruction
- The housing assistance scheme should support the objectives established for the reconstruction program in the reconstruction policy.
- Each disaster will require its own housing assistance scheme; there is no "one size fits all" approach.
- Decisions regarding eligibility criteria and housing assistance must be objectively applied and transparently disclosed.
- Post-disaster housing policy must consider the situation of people in all categories of housing tenancy, including squatters, although all members of all categories may not receive assistance.
- Assistance schemes should be tailored to different levels of damage. Avoid incentives to exaggerate damage that then result in overpayment.

Introduction
Pre-disaster housing conditions vary widely, from luxurious to ramshackle, but no type of housing is immune to the effects of disasters. In addition, in a post-disaster environment, households have different kinds and levels of resources to rely on for rebuilding; some can rebuild solely with their own resources, while others are totally dependent on government assistance. It may also be beneficial in a post-disaster environment for government to provide assistance to households that weren't even affected by the disaster.

When post-disaster housing assistance is being allocated, policy makers have to address the following critical questions:
1. Who is entitled to housing?
2. What type of housing solution are they entitled to receive?
3. How much housing assistance will they receive?

These questions have no "right" answer. While all post-disaster housing assistance is intended to help recipients solve disaster-related housing problems, the approach must be fine-tuned to the circumstances, culture, and available resources. This chapter provides guidance on the factors to consider in making these decisions and discusses some of the consequences. The discussion is focused principally on assistance to help return housing to a safe and livable condition and is meant to address the needs of the affected population, in all tenancy categories, as shown below.

<table>
<thead>
<tr>
<th>Tenancy categories</th>
<th>Party normally responsible for reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>House owner-occupant or house landlord</td>
<td>Owner-occupant or landlord</td>
</tr>
<tr>
<td>House tenant</td>
<td>Landlord</td>
</tr>
<tr>
<td>Apartment owner-occupant or apartment landlord</td>
<td>Owners as a group or landlord</td>
</tr>
<tr>
<td>Apartment tenant</td>
<td>Landlord (public or private)</td>
</tr>
<tr>
<td>Land tenant</td>
<td>Tenant, unless tenure is not secure</td>
</tr>
<tr>
<td>Occupancy with no legal status (squatter)</td>
<td>Squatter, if status remains informal; otherwise moves to another category</td>
</tr>
</tbody>
</table>

This Chapter Is Especially Useful For:
- Housing assistance policy makers
- Project managers
- Agencies involved in reconstruction
- Affected communities

1. A discussion of the delivery of housing assistance is found in Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance.
“What Is a House?”
A Critical Question for Assessments and Program Design

How a house is defined in a given culture or location has important implications for post-disaster surveys, such as for the damage and loss assessments, and for program design. Fundamental to defining a house is gaining an understanding of the foundational social, cultural, and economic relationships among the disaster-affected people who live inside houses, i.e., households. This basic socioeconomic unit is the core metric used in designing shelter and settlement interventions in the wake of disasters.

Defining the number and composition of households, and the physical structures they occupy, is often quite difficult, particularly for foreigners, who may be unfamiliar with shelter and settlement patterns in disaster-affected areas. In some areas, for example, multiple generations live together, often necessitating separate living quarters within attached or detached structures. In other areas, one or more related households might live together as a family household, again in attached or detached structures. These and other “extended family” living arrangements might be extended further through such practices as polygamy, still common in many countries.

To the social complexity outlined above can be added economic complexities, for instance where structures such as granaries or workshops are located amidst or within living quarters, thereby combining to create a set of structures—often very similar in appearance—that together constitute a form of shelter called compound housing. This example, and many others, underscore the claim that how various structures defined and are (or are not) counted as houses when assessing damage in the wake of a disaster will largely determine the magnitude of the disaster, as well as the scale of any formal response efforts by civil society, local and national authorities, humanitarian actors, international agencies, and donors.

Source: Charles A. Setchell, Shelter, Setlements, and Hazard Mitigation Advisor, United States Agency for International Development Office of U.S. Foreign Disaster Assistance (USAID/OFDA), personal communication.

Public Policies Related to Housing Assistance and Beneficiary Eligibility

Few public agencies have policies on how to allocate and distribute post-disaster housing assistance. If they do, they will have to be adjusted to the particularities of the emergency at hand. However, there may be existing financial assistance programs related to housing and community development (such as down-payment assistance, low-interest loans, or ongoing community revitalization programs). These programs may have data on families that can be used to facilitate the qualification process. Or an administrative system that includes identification numbers may be in place that can be adapted to the reconstruction program. If other subsidy programs are already operating, public agencies should calibrate the level of assistance and qualification rules so that the housing assistance program is seen as fair and consistent with existing public policies (not providing disaster assistance in excess of other programs that seek to accomplish a similar goal). The agencies should also be prepared to explain publicly how the terms of the disaster program and other housing assistance programs relate.

Specific laws may apply when the housing assistance is offered to an owner by government in exchange for the property, for instance, to acquire a house in a high-risk area so that the residents relocate. If the owner objects to government taking the property, and government can argue that the property is being taken for a public purpose (risk reduction, in this case), eminent domain law may be applied. Governments will ordinarily avoid using eminent domain in a post-disaster situation because of the time and cost involved. Whether taken by eminent domain or another procedure, local law may stipulate the basis for the housing assistance, usually that the owner is “justly compensated” (often, paid fair market value) for his or her loss. Calculating the assistance on the basis of lost value, however, may not be equitable or politically palatable, since the wealthiest will receive the most assistance.

Technical Issues

Social Risk Management and Disasters

Post-disaster housing assistance by government is an example of a public arrangement for social protection or social risk management. Social risk management arrangements are generally categorized as follows: (1) informal arrangements, such as sale of personal assets or community self-help; (2) market-based arrangements, such as property insurance; and (3) public arrangements, such as assistance grants or other social safety nets. All families will use informal arrangements in their recovery and reconstruction, but they are unlikely to be sufficient. Only a select group will generally have access to market-based arrangements. The expectation after a disaster is that public arrangements, in this case housing assistance, will fill the gap that remains when informal arrangements and market-based arrangements are inadequate. See Annex 1, How to Do It: Considerations in Designing a Social Protection System for Natural Disasters.

Government as Insurer

In many countries, government acts as the principal insurer of housing after a disaster. This is common when there is an inadequate property insurance system, an insurance market that is unaffordable to some households, no sanctions against being uninsured or underinsured, or disaster damage exceeds whatever insurance coverage people may have had. But when government plays this role, the “insurance terms” are not defined until after the disaster, which creates uncertainty for those affected, and the expectation that government will provide assistance creates political and economic burdens for government.

2. For an example of an existing program whose criteria were adapted to provide assistance for post-tsunami reconstruction in Orissa, India, see the Indira Awas Yojana housing program of the Ministry of Rural Development, Government of India, http://rural.sic.in/iayg2.htm.

3. Eminent domain (United States), compulsory purchase (United Kingdom, New Zealand, Ireland), resumption/compulsory acquisition (Australia) or expropriation (South Africa and Canada) is the inherent power of the state to seize or expropriate property or seize rights in property, with due monetary compensation, but without the owner’s consent. The property is taken to devote it to public or civic use. Source: Wikipedia, “eminent domain,” http://en.wikipedia.org/wiki/Eminent_domain.

The assistance policy after one disaster will be interpreted as a signal to property owners about what government will do in future disasters, but these interpretations may be incorrect, or government policy may change over time. Eventually, government may decide that the moral hazard created by repeatedly providing reconstruction funds is too great and that alternatives must be sought. Creating a private insurance market and requiring homeowners to participate is one step in the process of removing government from the role of insurer. Also important are land use restrictions that forbid the occupancy of high-risk areas. There may be situations when government decides not to provide housing assistance after a disaster; for instance, when homeowners have the opportunity to insure their property and do not do it, or have knowingly chosen to live in high-risk areas over other options available to them. These policies should be defined before a disaster so that people have the opportunity to adjust their decision making. But the policy option of not providing assistance at all—or only for some part of the affected population (having an income cutoff, for example, as discussed below)—is one that should be evaluated even after the disaster.

Reconstruction as Opportunity to Resolve Long-Standing Problems

As part of reconstruction policy, government must decide the degree to which reconstruction will be used to accomplish longer-term development objectives. A disaster is often viewed as an opportunity to resolve long-standing development shortcomings, and, with a significant inflow of external assistance, the potential for correcting inadequacies in pre-disaster housing and community services obviously increases. It is clearly sound policy to rebuild houses and infrastructure that is less vulnerable to future disasters (“built back better”). A more complex decision in development terms is whether to move disaster-affected communities “to the head of the line” of all those waiting to have their basic needs met (e.g., providing sewerage systems or updated road configurations), thereby favoring affected communities with a standard of living higher than that in similar, but unaffected, communities. The savings of taking a comprehensive approach to reconstruction may justify it, even at the risk of political fallout. An example of when the reconstruction period was used as a time to address the vulnerabilities of undamaged housing is discussed in the case study on the Gujarat reconstruction policy in Chapter 2, Assessing Damage and Setting Reconstruction Policy. It explains how strengthening of housing not damaged by the disaster was defined in the reconstruction policy as an integral part of the reconstruction effort.

Reconstruction as Social Policy

A post-disaster housing assistance program will raise questions of equity, both among those affected and between the affected group and unaffected households with similar needs. Poor and vulnerable households are likely to need a disproportionate level of assistance after a disaster because they are otherwise less able to rebuild or reestablish their livelihoods, but they may not receive it. Assistance is likely to arrive from numerous sources—private, public, and official, national and international—and to be channeled through a range of entities. Each organization may define housing needs or rights differently, and an organization’s imperative to establish a foothold in the disaster location can produce unexpected and inequitable outcomes. Government has the right and responsibility to ensure a consistent and equitable allocation of the available resources. The challenge of doing so effectively increases with the number of agencies involved. A useful tool to reach a common understanding of the social impacts of the disaster is social assessment. Annex 2 of this chapter contains a step-by-step explanation of how to conduct a social assessment.

Choice of Criteria

The task of allocating housing assistance can have unintended consequences when applied in real-world situations. Applying criteria in a logical manner is not easy, and the reality of limited resources further complicates the task. Government should develop an assistance strategy that selects among and weights these (and perhaps other) criteria in a way that reflects both governmental objectives and social values. Arriving at the proper solution is likely to be an iterative process. Government should consult with the public, especially the affected communities, on the appropriate assistance policy. Once decided, it should be announced publicly and applied objectively. Government should also monitor and publicize the results of the policy and be willing to make any needed adjustments.

The tables below contain some housing-related questions that are commonly asked during the process of developing a disaster housing assistance strategy, some issues that should be taken into consideration in responding to those questions, and some recommendations on how to proceed.
## Who Is Entitled?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Questions</th>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold</strong></td>
<td>Should all people who suffered housing losses be entitled to aid or should assistance be targeted only to specific categories of people?</td>
<td>Categories may be economic, geographic, or related to some aspect of pre-disaster housing condition, but any choice can create inequitable outcomes in certain situations. The case study on reconstruction following the 2004 Indian Ocean tsunami in Tamil Nadu, below, demonstrates how persistence may be needed to establish eligibility for assistance.</td>
<td>The implementing agency must have sufficient resources and administrative capacity to carry out the qualification process and the program.</td>
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<td>Is having legal status in the country a requirement?</td>
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<td>Should households not affected by the disaster be assisted if they have housing problems similar to those who were affected?</td>
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<td>How will those with a need for housing who have migrated into the disaster region after the disaster be treated?</td>
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<tr>
<td><strong>Unit of assistance</strong></td>
<td>Is the unit of entitlement the house, the family, or the household?</td>
<td>If pre-disaster housing supply was inadequate, multiple households or extended families may be sharing a single house unwillingly. Conversely, a single family may own or live in more than one house.</td>
<td>Make an early decision on the unit of assistance and the extent to which the goal is to address pre-disaster housing shortcomings.</td>
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<td>Is a single-person household treated differently?</td>
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<td></td>
<td>How is assistance calculated for a household with multiple families?</td>
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<tr>
<td><strong>Economic status</strong></td>
<td>Is income below a certain level a qualification or do all income levels qualify?</td>
<td>Income records may be falsified, destroyed in the disaster, or nonexistent.</td>
<td>Ensure there is a feasible method for qualifying according to income.</td>
</tr>
<tr>
<td><strong>Social characteristics</strong></td>
<td>Do social characteristics, such as gender, caste, or incapacity, override income as a criterion in those cases where there is an income cutoff?</td>
<td>Women and members of other vulnerable groups may need housing assistance even when their income exceeds the cutoff. The case study on reconstruction following Typhoon Durian in the Philippines in 2006, below, describes a multi-step targeting procedure that was used to identify the poorest and most vulnerable.</td>
<td>Consider using community members to help identify those who truly need assistance.</td>
</tr>
<tr>
<td><strong>Renters versus owners</strong></td>
<td>Who gets the assistance? Renters? Owners? Both?</td>
<td>It is equally important for rental housing to be rebuilt, yet during reconstruction renters may need assistance for temporary housing.</td>
<td>Consider requiring owners to let renters return at similar pre-disaster rents as a condition of owners receiving assistance.</td>
</tr>
<tr>
<td><strong>Informal tenure-holders</strong></td>
<td>Is a squatter or informal settler entitled to the same housing assistance as a property owner?</td>
<td>Squatters may need assistance in addition to housing. This assistance will require planning for a more comprehensive set of services. Squatters often move to a disaster area after a disaster just to obtain housing assistance.</td>
<td>Ensure sufficient resources are available to carry out a full-service relocation program. It may be necessary to exclude families that have migrated post-disaster.</td>
</tr>
<tr>
<td><strong>Absentee owners versus owner-occupants</strong></td>
<td>Should owners living elsewhere be entitled to housing assistance or only residents of the disaster area? Are owners of houses under construction entitled to assistance?</td>
<td>This issue is related to the question of the unit of assistance. If the primary motivation is to relocate residents, absentee owners may not qualify. If neighborhood stability is a concern, broader eligibility will help prevent the negative effect of abandoned properties. If the owners are migrants, the remittances they are earning elsewhere may be supporting other households in the affected area.</td>
<td>Try to use housing assistance as an incentive for owners to sell or rent.</td>
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</tbody>
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*SAFER HOMES, STRONGER COMMUNITIES: A HANDBOOK FOR RECONSTRUCTING AFTER NATURAL DISASTERS*
What Type of Housing Solution Are People Entitled To?

The questions regarding “type of housing solution” and “amount of assistance” are closely related. The former address issues related to the physical result being sought; the latter address issues related to the resources needed to accomplish the physical result. Neither is related to the reconstruction approach; almost any type of solution can be provided using a range of reconstruction approaches.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Questions</th>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the assistance</td>
<td>For what purpose is assistance available? Options may include reconstruction, repair, retrofitting, purchase of housing or land, and even rental assistance or transitional shelter.</td>
<td>Important to avoid an incentive for homeowners to exaggerate the extent of damage or to deliberately damage their houses further. Assistance for both land acquisition and housing may be necessary, if current location is not safe. Transitional shelter solutions may allow families to remain on their land, thus saving other temporary housing costs.</td>
<td>Both the level and the purpose of the assistance should be related to the condition of the house. If repairs are feasible and location is suitable, assistance should be geared to that cost, even if the family prefers to relocate. Consider assistance for retrofitting a high priority if those not directly affected by the disaster are to be aided.</td>
</tr>
<tr>
<td>Standard solution</td>
<td>Is it best to give everyone a core house of standard size and features (or resources sufficient to build one) and let them modify it as they see fit?</td>
<td>This is the “core house” model, which has been used in both agency-driven and owner-driven projects. Experience shows owners usually spend their own resources to augment the minimum assistance.</td>
<td>The core house at a minimum should be built for disaster-resilience, although additional rooms may not. This can be a cost-effective reconstruction approach.</td>
</tr>
<tr>
<td>Minimum housing standard</td>
<td>Is it better for government to provide assistance at a level that will ensure a minimum standard of housing for everyone (e.g., persons/bedroom, square footage of common space per occupant) or a minimum level of safety?</td>
<td>Ensuring a minimum solution requires variations in total assistance levels according to household size. Defining an acceptable minimum level will be culturally and even neighborhood specific. Vernacular solutions and non-standard designs and materials may be rejected. Government may provide assistance only to rebuild a strong house structure, leaving it to owners to contribute the rest.</td>
<td>Consider applying the minimum standards approach for public infrastructure, even if some other approach is used for housing. Consider targeting housing assistance to building a better housing structure only.</td>
</tr>
<tr>
<td>Pre-disaster housing situation</td>
<td>Should those whose housing had a higher value qualify for more assistance than those whose housing had a lower value? Conversely, should those whose pre-disaster situation was substandard qualify for more?</td>
<td>This is related to the assessment of damage. Restoring pre-disaster housing status means that government is providing assistance for value—paying more to those who had more, rather than striving for equity. Giving more assistance to those whose pre-disaster housing had shortcomings than to those who had adequate housing means other social objectives are being pursued.</td>
<td>Realize that the assistance scheme may send an unintentional message about future assistance and the type of rebuilding that should be done. Consider conditioning the assistance (see note below on “Conditions on assistance”) and make sure government’s intentions regarding future assistance are clearly articulated and communicated.</td>
</tr>
<tr>
<td>Customized solution</td>
<td>Can the entitlement criteria be weighted to produce a socially and economically optimal allocation of resources based on the characteristics of the family?</td>
<td>Value judgments are required to select and weight the criteria. Decide whether a single weighting system is acceptable or appropriate for all affected groups. Government should persuade outside agencies to align their assistance criteria with those of government.</td>
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</table>

CHAPTER 4: WHO GETS A HOUSE? THE SOCIAL DIMENSION OF HOUSING RECONSTRUCTION
What Amount of Housing Assistance Should Be Provided?

Quantifying the amount of assistance may be the policy issue that concerns decision makers even more than what result will come of it. The factors above, such as the types of solutions sought, influence the level of assistance. Below are other critical questions.

<table>
<thead>
<tr>
<th>Options</th>
<th>Questions</th>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need</td>
<td>Should available family resources be considered in setting housing assistance? Should all households be expected to make a contribution (labor, cash, in-kind)?</td>
<td>Assistance may not be necessary if a qualified household is capable of acquiring the minimum housing solution with its own resources. If only the cost of the solution is considered, it implies no expectation of self-help. Experience with use of credit in reconstruction is limited. It is best to avoid lending by the public sector. Credit was used for reconstruction by all those above the poverty line after the 1999 Orissa Super Cyclone, as described in the case study, below.</td>
<td>Establish a consistent policy about use of family resources in rebuilding and decide whether all households will receive some housing assistance. Decide whether households with capacity to borrow should be encouraged to finance reconstruction with credit.</td>
</tr>
<tr>
<td>Housing assistance for different levels of capacity</td>
<td>How should households be assisted who have additional vulnerabilities or reduced capacity to manage rebuilding and therefore need extra help in acquiring a desirable housing solution?</td>
<td>A support system will assist households in using the housing assistance that they are provided. Providing extra housing assistance to these households to buy services, such as supervision of construction, is another option, but agencies may need to support them in any case to ensure that appropriate services are in fact received.</td>
<td>Ensure that the monitoring system keeps track of outcomes (appropriate housing solutions occupied by different types of households) as well as outputs (funds disbursed).</td>
</tr>
<tr>
<td>Replacement of other assets</td>
<td>Is the housing assistance only for housing? Or should it cover furniture and other household investments, such as equipment for home-based businesses that will permit the restoration of livelihoods?</td>
<td>The house may not be occupied or the household sustainable unless these other assets are replaced.</td>
<td>Funding agencies should understand that the household is not just a house. It’s an economic system that needs to be rebuilt and the agencies should provide appropriate forms of funding.</td>
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</table>

Additional Considerations

Poverty and vulnerability. People’s capacity to recover from a disaster depends on their socioeconomic status. The majority of the poor are women and children who may be isolated socially and who may have less access to physical, financial, and social capital. Members of vulnerable groups and the poor may not incur high losses in absolute terms simply because they own less, but they tend to be the most severely affected by disasters. These households often do not own the land or shelter they occupy. And their dwellings may be weaker and located in more vulnerable sites. In addition, if the house or land belonged to a husband or brother who has died in the disaster, women may be at risk of displacement and destitution. These issues need to be taken into consideration in designing assistance strategies. The vulnerability of households may be related to the loss of livelihood. The case study, below, explains how the priority of preserving employment in the affected villages resulted in a decision to provide more assistance to larger land owners.

Family size and composition. Housing requirements are a function of, among other things, family size and composition. These characteristics change with time and vary among societies. For instance, an assistance strategy that ignores the requirements of extended families can weaken family ties that support livelihoods and that serve as informal social security systems. This is one problem with providing overly standardized housing solutions that are difficult to customize later.

Conditions on assistance. Government may decide to tie housing assistance to a requirement to comply with some condition that accomplishes a public purpose. The most common example is the requirement that the recipient improve the disaster resilience of the reconstructed house (“building back better”). Requirements could also address the reduction of environmental impact, improvement of fire safety, compliance with universal design standards for handicap
accessibility in a multi-family building, co-ownership by a couple, or conformance with architectural guidelines in a historic district. Any of these conditions may be reasonable, depending on the circumstances. Governments that condition assistance in this way must have adequate controls to ensure compliance and even-handedness in the application of the requirement.

**Land and housing tenure.** The United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) recognizes six tenancy categories, shown in the Introduction section of this chapter. In fact, the number of categories is much larger in some places. Rural households usually own the house they occupy and have tenure security through formal land titles or customary land rights. Urban and rural residents in the same country may have different tenure and occupancy options. Owners of housing may not own their land. In many reconstruction programs, only homeowners with clear title to their land have been entitled to housing assistance. Those designing housing assistance strategies should make sure they understand all the categories of tenancy relevant to the affected population and craft an assistance program that considers them all. The United Nations Human Settlements Programme (UN-HABITAT) identified 31 different tenancy situations in the affected population in Peru following the 2007 Ica/Pisco earthquake. Chapter 7, Land Use and Physical Planning, contains a section on resolving land tenure issues in reconstruction.

**Gender issues.** Generally, women spend more time in their homes than men do, and they have clearer ideas about what they need. Yet women often do not participate in public consultations or express their views in the presence of men, which can lead to errors in developing the assistance strategy. This may be particularly true of female-headed households. Best practice would be to place special emphasis on the particular post-disaster situation of women and to organize separate women-only community consultations. Among the gender-related housing issues to consider in housing reconstruction are (1) legal (the differential legal status of women), (2) economic (women’s low economic status and the prevalence of women’s home-based enterprises), (3) security (safety issues related to housing and access to services and markets), and (4) social (children’s access to schools).

**Disaster-induced mortality and migration.** If a disaster causes high rates of mortality or migration, it may not make sense to estimate housing requirements based on a pre-disaster census or to adopt a house-for-house assistance policy. More time and technical support may be required before an appropriate housing assistance policy can be defined.

**The importance of social assessments.** While the damage and loss assessment estimates physical damages and needs for reconstruction, a social analysis is required to understand the social dimension of housing and to design the assistance policy. The social analysis should include consultations with stakeholders and affected communities. The World Bank has experience and resources that provide conceptual and methodological guidance on conducting social analysis, as well as e-learning courses. Although none of these tools focuses specifically on social analysis in relation to disasters, they can be adapted for this purpose. Annex 2 to this chapter contains a step-by-step explanation of how to conduct a social assessment.
Examples of Recent Housing Assistance Schemes

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<tr>
<td>Not a uniform package, leading to equity issues. Assistance disbursed in three tranches. Compensation ranging from INR 5,000 to INR 90,000 (US$126 to US$2,277).</td>
<td>Uniform assistance package. Assistance of LKR 100,000 (US$880) disbursed in two tranches for partially damaged houses and LKR 250,000 (US$2,200) disbursed in four tranches for destroyed houses.</td>
<td>Uniform assistance package. Assistance of IDR 20 million (US$2,000) for repairable damaged house and IDR 42 million (US$4,200) for full reconstruction of destroyed house.</td>
<td>Not a uniform package. Assistance based on actual value of house and insurance coverage. Assistance of up to US$150,000 available for homeowner.</td>
<td>Uniform assistance package. Assistance of PKR 75,000 (US$1,250) for partially damaged house disbursed in two tranches and assistance of PKR 175,000 (US$2,917) for destroyed house disbursed in four tranches.</td>
</tr>
</tbody>
</table>


Risks and Challenges

- Inappropriate or inequitable housing assistance program designs created by an inaccurate understanding of the social context or of local needs and capacities.
- Social conflicts created by a failure to establish sound and consistent program rules, apply them objectively and predictably, and communicate them clearly to the affected population.
- Creating an incentive for owners to overestimate damage or cause damage to their own house.
- Thinking that it is sufficient to create the assistance scheme and forgetting to monitor its effectiveness, including ease of access by target groups and impact on the ground.

Recommendations

1. Rather than borrowing from other disaster responses, develop a housing assistance policy consistent with the specifics of the situation and reflective of public policy and social values.
2. Base assistance policies on sound social analysis.
3. Involve local communities and stakeholders in defining entitlement policies and make a special effort to consult with women, privately if necessary.
4. Develop a policy that contributes to equity, risk reduction, and sustainability. At the operational level, fine-tune it to the needs and capacities of different categories of affected people and their household requirements.
5. A single post-disaster reconstruction program may include various approaches to housing assistance, depending on levels of damage from one location to another, household composition, the institutional context, and other factors. However, even if a range of approaches are employed, government should ensure the available resources are being well allocated overall, promote the use of consistent eligibility criteria among organizations, and establish minimum and maximum levels of assistance.
6. Make the assistance policy easy to understand. Publicize both the policy and any conditions on the access to funds.
7. Avoid paying more than is necessary for the level of damage. Also avoid indiscriminate distribution of free houses to avoid negative socioeconomic consequences.
8. Closely monitor outcomes from application of the assistance policy and communicate them publicly. Evaluate the program and be willing to adjust the policy over time.

Case Studies

2006 Typhoon Durian, Bicol, Philippines

Targeting during Post-Typhoon Reconstruction

Typhoon Durian hit the Philippines in November 2006, just when the country—especially the Bicol Region in the Luzon Island group—was recovering from a previous typhoon and from the eruption of the Mayon volcano. Durian, categorized as a super typhoon, caused mudslides, floods, and powerful winds that affected almost 650,000 households, displaced more than 19,000 households, and damaged approximately 540,000 houses, of which 214,000 were destroyed. Some 2,360 people were reported injured and 720 deaths were confirmed. Coordinating with government and municipalities, the nongovernmental organization Community Organization of the Philippine
Enterprise Foundation (COPE) decided to focus on relocation and construction of permanent shelter in Daraga and Legazpi City, two cities that were heavily affected by the typhoon. The multiple-step targeting process was designed to identify the poorest of the poor, using information from community associations and local government units. The criteria targeted people without access to any financial assistance for reconstruction, single parents or widows with at least four dependents, vulnerable individuals (orphaned, disabled, or ill), and poor families that had lost their major source of income. Home visits were carried out to validate beneficiary information provided by local governments. Focus groups were held to discuss relocation. Psychosocial therapy was provided to help the families overcome the disaster experience and prepare for reconstruction and relocation. To be selected, beneficiaries had to commit to provide counterpart labor during construction (the value of the labor ranged from US$60 to US$151). During the construction process, constraints included the unavailability of land for permanent shelter close to the original settlement and the constantly increasing prices due to high rates of inflation. Despite these problems, COPE provided 170 typhoon-resilient permanent housing units to the selected families.


2004 Indian Ocean Tsunami, Tamil Nadu, India
Identifying Eligible Families in an Urban Setting
Tamil Nadu was one of the Indian states most affected by the 2004 Indian Ocean tsunami. While a number of agencies were involved in the provision of temporary housing and in reconstruction in Chennai, it was principally the Tamil Nadu Slum Clearance Board (TNSCB) that worked with the fisher community. The city of Chennai had an ongoing initiative, funded by the World Bank, to replace slums with tenement housing and therefore had procedures in place that were helpful in planning the apartments required by the community. The key challenges for the TNSCB were (1) getting the fishers to concur with the design of houses, and (2) developing the list of eligible families. Because the houses were to be given away, many ineligible people tried to be declared eligible (including one person who claimed ownership of 32 structures). Approximately 11,000 people claimed to be the owners of the 6,000 properties slated for replacement. However, the fishers resisted participating in the field survey that would validate their claims; the survey teams faced physical assault and required a police escort. When eventually the TNSCB completed the field enumeration, each family was surveyed and photographed in front of its property. The TNSCB used an eligibility matrix to award points for current residency on site, residency immediately after the tsunami, and documentary proof of residence (current and immediately after the tsunami). No family could receive more than one housing unit. Based on the scoring, an eligibility list was finalized and presented to the families for their review. Because of the transparent manner in which the survey was conducted, development of the eligibility list—a daunting task—was eventually accomplished and approved by all stakeholders. Although this process delayed the start of reconstruction by more than two years, it produced a detailed tool that could be used to streamline the eligibility process in future disasters.

Source: C. V. Sankar, India National Disaster Management Authority, 2009, personal communication.

Different states in India have adopted entirely different housing assistance policies, each of which reflects an interpretation of an affected community’s socioeconomic conditions and housing needs. The case studies below show how housing assistance policies can exacerbate existing socioeconomic inequalities.

1993 Maharashtra Earthquake, India
Pre-Disaster Landholding as Basis for Assistance in Maharashtra
The 1993 Maharashtra earthquake caused damage in 728 villages, 37 of which were completely destroyed; the collapse of 25,000 houses; and damage to another 200,000 houses. A reconstruction program was executed, largely with resources from the US$221 million World Bank loan—the Maharashtra Emergency Earthquake Rehabilitation Project.

The affected villages were divided into three damage categories. Category B villages (22 villages, 10,000 houses) received financial assistance for reconstruction in-situ. Work was stalled in some cases while people lobbied for relocation. Construction and land purchases for these villages were done largely by nongovernmental organizations. Investment in amenities was modest, but satisfaction levels were high. Category C villages (180,000 houses) used owner-driven reconstruction for repair and retrofitting damaged houses, with materials distribution and extensive
supervision. The work in these villages started late, but went more quickly than the others. Satisfaction levels were high. Cash assistance to beneficiaries in Categories B and C were uniform: Rs 62,000 (US$2,000) for reconstruction, and Rs 17,000 (US$548) and Rs 34,500 (US$1,113) for repairs, depending on the level of damage.

The more complex situation had to do with certain villages that were classified as Category A (52 villages, 28,000 houses), including the Latur villages in Killari. In these villages, houses were relocated and full reconstruction took place. For the Category A beneficiaries, the size of the plots and new houses varied, depending on the original landholdings of the beneficiary. Landless and marginal landholders got a plot of 1,575 sq. ft. and 250 sq. ft. houses. Households owning between 1 and 7 hectares of land got 2,500 sq. ft. plots and 400 sq. ft. houses. Farmers owning more than 7 hectares of land got 5,000 sq. ft. plots and 750 sq. ft. houses. As a result, wealthier households benefitted more than poor households, regardless of their own endowments or requirements.

The justification for this approach had to do with the characteristics of the local economy. The Latur village economy in Killari consisted of a few large Patils who owned major land holdings and lived in the village center in large stone, mud, and wooden frame gaddis. Some had up to 1-acre plots with sprawling structures. Landless dalits who provided farm labor lived on marginal land in mud and thatch huts. However, the gaddis were not only residences, they were effectively agro-processing centers. On these properties, many productive activities took place: produce of the farms was stored, cattle was milked, sugar cane was converted into jaggery, fodder was dried, and grapes were converted into resins. As a result, dozens of landless workers were employed on the gaddis. Originally, the decision was made to give everyone equal housing assistance after the earthquake. But the Patil owners refused to accept this solution, saying that they would move their dwellings out of the village to large farm plots. If they had done so, it would have destroyed the village economy, because each large house employed dozens of landless workers. To find employment, the landless workers would then move to the city or have to move onto the Patil properties. The land owners argued that they lost the most and that to continue to live in the village they needed large houses to store and process the farm produce. Contractors were hired for all work, and amenities, including infrastructure, were extensive. There was limited community participation, which reduced the level of beneficiary satisfaction.

Landless dwellers in small huts, mostly squatters with uncertain titles, not damaged by the earthquake, received fixed houses of 250 sq. ft. on 1,500 sq. ft. plots with full ownership titles. The large gaddi owners received up to 5,000 sq. ft. plots, which were nearly half or one-third of their original household plots. Thus, the gaddi owners had less than what they had before, but, by remaining in the villages, they enabled agro-processing to subsist on, and the landless (who now owned small plots) retained their livelihood. If the large land owners moved to their individual farm lands, the landless small house owners would not have been able to stay in the village as there would have been no employment. The lesson from this experience, according to those involved, is that post disaster reconstruction can improve the lot of many, but cannot resolve all pre-disaster social inequities.

1999 Orissa Super Cyclone, India

Beneficiary Assistance Varies by Poverty Level
The “super cyclone” that hit Orissa, India, in September 1999, affected 13 million people, killed nearly 10,000, and destroyed some 800,000 houses. Immediately after the disaster, all affected people received a minor grant. No comprehensive governmental reconstruction program was organized. Instead, government provided two types of housing assistance: free housing to 200,000 poor families through the Indira Awas Yojana, an ongoing social housing program targeting the scheduled castes and tribes and households below the poverty line; and loans to 175,000 families above the poverty line through the Housing and Urban Development Corporation. This policy reflected a recognition that the type of assistance provided to better-off households who could afford to repay the cost to rebuild should be different from the assistance provided to poor families.


2001 Gujarat Earthquake, India

Funds Allocated According to Damage Level
The earthquake in the state of Gujarat, India, destroyed 344,000 houses and damaged another 888,000. Using World Bank funds from the Gujarat Emergency Earthquake Reconstruction Programme, government offered financial, material, and technical support to all affected families based on the type of house they owned and the level of damage incurred. Families with completely destroyed kutchha house (built with low-cost materials, such as mud and thatch) received a maximum grant of Rs 30,000 (US$630). Families with a completely destroyed pukka house (built with industrial materials, such as bricks and cement) received a maximum assistance of Rs 90,000 (US$1,900). While poor people received less assistance than rich people, the minimum assistance was sufficient to replace a kutchha house with a higher-standard house; however, the maximum grant was not sufficient to replace houses of higher-income people. The housing rights of the homeless and tenants were also recognized.


Resources


Natural disasters are external shocks that can have a major impact on the social and economic welfare of populations and households. Social risk management (SRM) refers to the use of a range of social protection mechanisms to prevent and mitigate risk (ex ante strategy) or cope with its impacts after a shock such as a disaster has occurred (ex post coping strategy). In the context of poverty reduction, SRM is a set of tools that improve the management of vulnerability by households, and may even lead to poverty reduction. The focus of SRM in the post-disaster context is on restoring and rebuilding both assets and livelihoods of households and affected communities.

Social safety nets are a type of program within the broader range of social protection. Social safety nets generally refer to non-contributory transfers (in cash or in kind), targeted at both populations at risk of economic destitution and the permanently poor, designed to keep their income above a specified minimum. In a post-disaster situation, social safety nets are almost always publicly funded transfers that help households avoid irreversible losses and decline into poverty by providing basic income and employment support. Social safety net support is often accompanied by other public or private resources provided for reconstruction and recovery. (Other instruments of social protection and social policy include mechanisms as wide-ranging as labor market policies or pension schemes. None of these other mechanisms is addressed in this annex.)

This annex presents some of the issues to consider in designing a disaster-related social safety net program. While social protection and livelihood support have been considered an important part of post-disaster response for years, there has been little ex ante planning of these disaster interventions by government. Yet planning ahead to anticipate post-disaster demands has significant benefits, since trying to create an effective social safety net program from scratch immediately after a disaster is virtually impossible. At least four months is needed to design a quality social safety net program; the special challenges that arise in the aftermath of a disaster may require additional time. The World Bank can provide extensive technical and financial assistance to governments on designing social protection systems.1

The two best options for putting a post-disaster social safety net system in place are to adapt a system that is already operating or to create a system to provide a short-term response while simultaneously designing a better system to be implemented in the medium term.

### Options for Implementing Safety Nets in the Context of a Disaster

**Adapt existing systems**
- Expand existing safety nets to provide a short-term option for offsetting the immediate effect of a natural disaster with minimum negative impacts on economic incentives.
- Provide immediate productive activities that lead to more sustainable activities in the medium term (phasing out).
- If necessary, temporarily relax standards, but maintain a minimum level of requirements.
- Expand existing monitoring systems to detect immediate impacts and problems in any program design adapted to the disaster.
- Set up response systems for future disaster risks during the reconstruction process.

**Example:** After Hurricane Mitch in 1998, the Honduras Social Investment Fund (Fondo de Inversión Social [FIS]) played a crucial role in rebuilding the country’s infrastructure. Regional offices and technical experts quickly estimated the need to clean up the debris, repair water and sanitation systems, and provide access to roads, bridges, health centers, and schools. To respond to the urgency of the situation, the FIS simplified its subproject requirements while maintaining minimum standards. Within 100 days, more than 2,100 projects were approved for a total value of US$40 million. Labor accounted for 70 percent of the clean-up activities and 25–30 percent of the value of most subprojects. The FIS created 100,000 person-months of employment in the first three months after Hurricane Mitch.2

**Provide a suboptimal immediate safety net while developing a more optimal longer-term system**
- Be aware that time constraints and poor planning for disasters may result in suboptimal programs.
- Begin to build an effective safety net for the medium term.
- Put systems in place to monitor negative impacts of the disaster, such as indebtedness.
- Use rapid surveys and spot-checks to assess if assistance is reaching vulnerable groups.

**Example:** Increased indebtedness was identified in disaster-affected villages in Myanmar six months after the Cyclone Nargis. Villagers worried that they would not be able to meet loan obligations and satisfy consumption needs in the following year. Although relief assistance reached all villages, much more assistance was needed for communities to recover, particularly in the form of cash grants. Without a way for people to manage their indebtedness, there was a risk of a loss of family assets.2
Balancing Speed and Design Quality

It is crucial to evaluate the disaster impact on households while also considering pre-existing vulnerabilities. The impacts of a natural disaster are not uniformly distributed within a population, and the effects on different people—and on their ability to cope—are strongly correlated with their pre-disaster situation. The social protection response depends on the relative intensity of those impacts and needs. At the same time, disasters affect entire communities and tend to destroy the informal safety nets and personal arrangements that traditionally provide “insurance” for poorer households. Since protection is a function of vulnerability, targeted programs are preferable to untargeted ones. The design process should include considerations of equity, cost-effectiveness, incentive compatibility, and sustainability.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Recommendations</th>
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</table>
| Context and disaster impact | ■ Analyze disaster impact and needs of the population.  
■ Analyze impact of disaster on the economy and employment.  
■ Evaluate markets and access to market.  
■ Evaluate supply availability for key goods and inflation consideration.  
■ Evaluate whether traders can respond to additional demand. |
| Country conditions | ■ Analyze national priorities and needs.  
■ Analyze available safety protection mechanisms, formal and informal, and program design, including targeting.  
■ Identify safety nets structures that are flexible enough to cover the affected areas.  
■ Identify programs that can be quickly scaled up and that can rapidly channel additional resources to vulnerable groups.  
■ Use household-level data on program access, targeting, and benefit incidence. |
| Vulnerabilities of the population | ■ Analyze vulnerabilities such as:  
■ hazardous locations, substandard housing;  
■ availability of ex ante risk management instruments;  
■ loss of jobs and income;  
■ lack of income-generating activities and resources for rebuilding income-generating activities (micro-finance, savings clubs, etc.); and  
■ lack of savings and other assets.  
■ Focus on the chronically poor, the temporary poor, and people living in the affected areas (and, within these groups, children, orphans, the elderly, the disabled, and women). |
| Targeting beneficiaries according to vulnerabilities and defining eligibility criteria | ■ Identify populations already covered by a safety net program and the eligibility criteria for those programs.  
■ Identify targeting methods that can be used (geographic, demographic, community-based) to channel resources to the affected areas.  
■ Identify eligibility criteria for affected populations that can be combined with existing targeting criteria.  
■ Avoid criteria that could create friction between groups and grievances.  
■ Develop criteria that are easy to explain and administer.  
■ Consider criteria such as loss of assets for immediate support, shifting to poverty criteria for medium-term support. |
| Benefit level | ■ Make sure level is adequate for subsistence.  
■ Avoid benefit level that could jeopardize work incentives or distort markets or prices.  
■ Provide larger amounts only as one-off compensation, for example, for loss of house. |
| Duration | ■ May vary by target group and nature of emergency.  
■ Provide cash or in-kind support for a limited period, longer only for the most vulnerable.  
■ Consider large initial transfer to all those affected, followed by a second, smaller transfer for those who still need it (e.g., after three months).  
■ Target later transfers to vulnerable/poor households.  
■ In large emergencies, consider targeting all transfers.  
■ Provide additional social services for the most vulnerable groups (such as orphans and disabled people). |
Social Safety Net Program Options

Social safety net programs can be carried out (1) to support immediate household and livelihood needs following a disaster, (2) as part of a scheme to facilitate housing and community reconstruction, or (3) to provide a combination of the two types of support. The forms of assistance that can be provided are similar in the three cases. Because this handbook focuses on reconstruction, this annex is intended to complement the rest of the handbook by explaining the options for immediate support.

A detailed discussion of criteria to be used in allocating reconstruction assistance is provided above in this chapter. For a discussion of the options for mobilizing and delivering financial resources and other assistance to support reconstruction, see Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance.

The table below summarizes the three principle safety net options for providing immediate support to sustain household and livelihoods following a disaster and some considerations to take into account when choosing among them.

### Safety Net Options for Immediate Support

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<tr>
<th>Program Feature</th>
<th>Cash and Near-Cash Transfers</th>
<th>In-Kind Transfers</th>
<th>Public Works</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Simplest way to channel resources to the most vulnerable households</td>
<td>In-kind transfers (food, clothing, and temporary housing) preferable if markets are not functioning or supply of basic goods is limited</td>
<td>Generates income in targeted areas while producing desired outcome: removing debris, opening roads, or restoring services</td>
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<tr>
<td></td>
<td>Increases households’ real income</td>
<td></td>
<td>Can be implemented at any time from response and reconstruction</td>
</tr>
<tr>
<td></td>
<td>Normally designed for a limited time until economic activities generate employment</td>
<td></td>
<td>Should not be considered for long-term income support</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Chronically poor working families</td>
<td>Chronically poor who cannot afford necessary commodities</td>
<td>Unemployed at the margins of the labor market</td>
</tr>
<tr>
<td></td>
<td>People not expected to work: children, the elderly, the disabled</td>
<td>Highly affected people needing nutritional support, commodities (blankets, clothing)</td>
<td>Temporarily poor, short-term unemployed</td>
</tr>
<tr>
<td></td>
<td>Those needing temporary assistance</td>
<td>When beneficiary group is limited</td>
<td>Self-targeting is effective when wage is low6</td>
</tr>
<tr>
<td></td>
<td>All affected households or households selected by geographical targeting</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pros</strong></td>
<td>Low administrative cost</td>
<td>Effective in life-saving situation</td>
<td>Needed infrastructure built or maintained</td>
</tr>
<tr>
<td></td>
<td>Transfer can directly meet critical household needs</td>
<td>Compensates for food shortages, alleviates hunger, improves nutrition</td>
<td>Contributes to resumption of basic services (roads, hospitals)</td>
</tr>
<tr>
<td></td>
<td>Benefits can be tailored according to the level of need and household size</td>
<td>Mitigates temporary shortages of essential goods</td>
<td>Politically popular programs</td>
</tr>
<tr>
<td></td>
<td>Provides beneficiaries with a greater freedom of choice</td>
<td>Can be used to provide tools to enable families to undertake reconstruction</td>
<td></td>
</tr>
<tr>
<td><strong>Cons</strong></td>
<td>Targeting methods can be information intensive, especially if the affected population is dispersed</td>
<td>High logistical cost in terms of storage, transport, and distribution</td>
<td>Administratively demanding if linked to large-scale infrastructure programs</td>
</tr>
<tr>
<td></td>
<td>Risk of moving cash</td>
<td>Errors of inclusion, depending on the targeting methods</td>
<td>Tradeoff between infrastructure development and poverty alleviation</td>
</tr>
<tr>
<td></td>
<td>Transfers are fungible, subject to unintended usage</td>
<td>Beneficiaries have no choice of commodities</td>
<td>Serves vulnerable, able-bodied households, not those in which no one can work (children, elderly, disabled)</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Only when markets are functioning and goods are available</td>
<td>In emergency situations for life-saving interventions</td>
<td>When unemployment is high, after a disaster or the collapse of the labor market</td>
</tr>
</tbody>
</table>
### Experience with cash transfer:
After the South Asia earthquake in 2005, the government of Pakistan allocated a monthly cash grant of US$50 to each eligible household. The amount was established based on a calculation of needs for an average household of seven persons. A policy decision was made by government that the payment would be uniform for all beneficiary households and would continue for six months.9

### Experiences with in-kind assistance:
After Cyclone Nargis in Myanmar in 2008, people monetized some of the in-kind assistance given to them through exchange or sale.10

During the 1998 Bangladesh floods, in-kind food relief operations were aimed at increasing nutrition levels and avoiding starvation of targeted groups.

### Experiences with public works:
In Indonesia, some 18,000 participants were involved in public works programs in approximately 60 villages after the 2004 Indian Ocean tsunami.

Following the 2001 earthquakes in El Salvador, Catholic Relief Services and Caritas ran a 2-year program in which communities were organized to build 1,300 houses as well as schools, health centers, and roads in exchange for food.10

### Literature review by Iride Cecacci.

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### Table: Recommendations

<table>
<thead>
<tr>
<th>Program Feature</th>
<th>Cash and Near-Cash Transfers</th>
<th>In-Kind Transfers</th>
<th>Public Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges</td>
<td>Defining benefits levels for different types of beneficiaries</td>
<td>Reaching most needy (especially in very remote areas)</td>
<td>Setting correct wage rate (lower than alternative employment opportunities)</td>
</tr>
<tr>
<td></td>
<td>Reaching intended beneficiaries, including those in temporary shelters or camps</td>
<td>Procurement, storage, and avoiding waste, spoilage, and pilferage</td>
<td>Setting the right labor intensity to make the program cost-effective</td>
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<tr>
<td></td>
<td></td>
<td>Determining whether approach is needed</td>
<td>Identifying projects with high labor requirements</td>
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<td></td>
<td></td>
<td></td>
<td>Maintaining projects if there is no community involvement in the planning and design or sense of local ownership</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cannot always be set up quickly due to adverse weather and other conditions</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Program should be simple and easy to verify and should use available technology</td>
<td>Use for shortest term possible in order to avoid creating dependency and suppressing the resumption of economic activities</td>
<td>Target disaster-affected regions and produce infrastructure desired by local communities</td>
</tr>
<tr>
<td></td>
<td>Clear implementation arrangements should include eligibility criteria, payment amounts, and duration of payments</td>
<td></td>
<td>Develop community-driven programs using participatory approach whenever possible</td>
</tr>
<tr>
<td></td>
<td>Transaction costs for beneficiaries should be kept to a minimum</td>
<td></td>
<td>Ensure community ownership of assets and system for maintenance</td>
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<tr>
<td></td>
<td>Immediate cash delivery avoids the delays of opening bank accounts</td>
<td></td>
<td>Avoid displacing people from other economic activities (harvest or other employment)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ensure participation of women, since their participation produces larger improvements in child welfare and family health</td>
</tr>
</tbody>
</table>

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### Annex 1 Endnotes

The implementation of any post-disaster reconstruction project can have technical, physical, environmental, economic, or social impacts. Some of the impacts are desired and planned, others are unforeseen. These impacts may become obvious immediately during the project implementation or show up months or even years later. While the technical and environmental impacts of projects have long been analyzed in detail during project preparation, only since the 1990s have international organizations such as the World Bank used social assessment (SA) to systematically analyze and adjust for the potential social impacts of projects. Project outcomes improve when potential risks from social impacts are analyzed early while projects are still being designed and the findings are used to fine-tune project design. SA helps all involved understand the social and economic context, incorporate the perspectives and interests of those whom the project is intended to assist, anticipate the project’s social impacts (both positive and negative), and prepare to mitigate them, when necessary.

Objectives of the Social Assessment

The general objective of SA is to improve the long-term social development outcomes of post-disaster reconstruction policies, programs, or projects by analyzing and managing their social impacts and by mitigating risks.

The specific objectives are (1) analyze the contextual factors of a particular project or sector policy and information on how these socio-cultural, institutional, historical, economic, and political factors may influence development outcomes; (2) identify the project’s social impacts on all relevant stakeholders, including beneficiaries and other populations affected, and their corresponding strengths, vulnerabilities, and risks; (3) analyze implementing institutions and the institutional framework; (4) identify opportunities and specific constraints the project may encounter; and (5) make concrete recommendations of actions that will mitigate any adverse social impacts or improve social outcomes during implementation and monitoring of the project or policy. The process of social assessment can itself enhance project equity and strengthen social inclusion and cohesion, by facilitating the participation of relevant stakeholders, including the poor and socially excluded, in project analysis, design, and/or implementation.

Methodology for Preparing a Social Assessment

The success of SA depends on the ability and capacity of the expert team to capture the multiple dimensions of the community social reality and to use this information to estimate social impacts and possible mitigation measures. It is fundamental that the team have sufficient experience in both the qualitative and quantitative aspects of social analysis, ideally in a post-disaster or similarly volatile context, and is comfortable working under time pressure. Below is a list of recommendations for conducting SA.

- Specialists should be hired to carry out this assessment, due to the complexity of the issues and the need to organize and interpret a wide range of information. The team should consist largely of experts in the social sciences, such as sociologists, anthropologists, geographers, social psychologists, or other persons experienced in social data collection and analysis of complex socio-cultural structures, as well as experts in political science and law. The composition of the team will vary, depending on the nature of the disaster and the project being analyzed.

- A suitable counterpart in government should be appointed who understands the importance of the work and who can facilitate contacts and access to information.

- This government official should be supported by a technical committee that includes representation from the affected population, key government agencies, and the sponsoring agency.

Sources of Information

SA is not a single method but can incorporate various approaches and tools to obtain, verify, and analyze data. Validating data in the post-disaster situation may be a challenge but should not be neglected. Data-gathering issues include the following:

- The socio-cultural, historical, and political context of the project will influence the data that is gathered, and the tools used, as will the complexity of social structures and perspectives that need to be incorporated.

- The strengths and limitations of data-gathering tools should be evaluated with respect to their validity, efficiency, and social acceptability during the planning of the assessment.

- While the affected population is the principal subject of the SA, it may also be engaged in data-gathering, analysis, mapping, focus groups, or other activities, and should be represented in the technical committee.

- Given the difficulty of data gathering in post-disaster situations, the technical committee should strongly consider requesting that the consultant team (1) collect data in such a way that it can be used as the baseline for later project monitoring and evaluation, and (2) propose concrete indicators and benchmarks to be used in monitoring and evaluating the project.

- In addition to the initial SA (described here), ongoing SAs should be carried out simultaneously with the execution of the project.

Scope of the Social Assessment

After reaching agreement on the principal objectives and methodology, the consultants should familiarize themselves with the most current version of the post-disaster reconstruction policy, program, or project under consideration, if one has already been proposed, or otherwise with the broad goals of the reconstruction program. Based on this, the team will gather and analyze information on (1) the socio-cultural, institutional, historical, and political context where the project takes place; (2), the legal and regulatory context; and (3) the key social issues,
including economic factors and income distribution, diversity and gender; the roles and behavior of community groups and affected stakeholders, the types of social participation, and any potential social risks. A detailed list of topics to be analyzed is shown in the table below. The relative weighting of these issues in the analysis depends on the project being considered and the context.

**Further Guidance on the Social Assessment**

**Institutions, roles, and behavior.** This component of the analysis should consider both formal and informal institutions, the political and administrative apparatus, and “rules of the game” at various levels of government, as well as the influence of private sector institutions, community, kin, and solidarity rules. Macro-institutional issues may also be relevant to the project, as well as an analysis of obstacles to equitable access to and benefit from institutions and their resources. The reasons for exclusions can include local customs, intergroup relations, formal and customary laws, or information and communication systems, and may be intentional or unintentional.

**Social and economic diversity and gender.** The information and analysis presented should be disaggregated by gender and income level, and vulnerabilities and their causes for each group should be identified. A special focus should be put on social equity impacts and on the distribution of impacts across the different identified social groups. Quantitative analysis should be accompanied by confidence intervals and significance levels. The following concepts should be kept in mind.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Elements to analyze</th>
</tr>
</thead>
</table>
| A. Institutions, roles, and behavior       | 1. Examine social groups’ characteristics, intragroup and intergroup relationships, and the relationships of those groups with public and private institutions.  
2. Describe formal and informal behaviors, norms, and values that have been institutionalized through these relationships and how they affect the implementation of the project.  
3. Describe possible opportunities to influence behavior of such groups.  
4. Point out constraints or potentials among these institutions for the project’s implementation.  
5. Summarize historical facts that are directly linked with the project framework and outcome range.  
6. Describe the political framework relevant to the project. |
| B. Legal and regulatory considerations      | 1. Review and summarize all national, local, and intermediate legislation and regulations pertinent to the project.  
2. Highlight in particular legislation and regulations that provide social assistance to poor and excluded groups. |
| C. Social and economic diversity and gender | 1. Describe the most significant social and cultural features that differentiate social groups in the project area.  
2. Examine how people are organized into different social groups, based on the ascribed status (ethnicity, clan, gender, locality, age, language, class, or other marker), achieved status, or chosen identity (ideology, education, citizen, political affiliation).  
3. Analyze the economic structure of the community and other factors that may influence local political decision making related to reconstruction, such as the allocation of assistance and public expenditures.  
4. Describe the assets and capabilities of diverse social groups.  
5. Analyze dynamic social and political power relations and their implications for the realization of the project.  
6. Explore current visible or underlying conflicts among the groups.  
7. Describe their different interests in the project and their level of influence. |
| D. Stakeholders                             | 1. Identify and characterize the various stakeholders.  
2. Explore the different stakeholder’s interests, motivations, and incentives in the project.  
3. Describe the impacts the project will have on the different groups of stakeholders.  
4. Analyze their existing and lacking assets and capabilities, both material and intangible, and present them in a table. |
| E. Participation                            | 1. Describe the local traditional systems of participation and its mechanisms of inclusion and exclusion, and evaluate its legitimacy to serve as project participation from.  
2. Based on the asset and capability table (see D, Stakeholders), explore opportunities and conditions for participation by stakeholders, particularly the poor and vulnerable, in the project process.  
3. Develop mechanisms to enhance marginalized groups’ skills and encourage them to participate in the project.  
4. Develop communication strategies to inform stakeholders and a feedback mechanism to include stakeholder’s reactions.  
The communication of information is a basic asset to be able to participate. |
| F. Social risks and vulnerability           | 1. Analyze all economic and social effects the project may have on the poor and excluded.  
2. Examine specific social risks according to the different social groups identified, especially on vulnerable groups.  
3. Analyze the perceptions of the affected groups regarding vulnerability and social risk and compare this data with results from other activities.  
4. Identify the country risks caused by political instability; conflict; ethnic, religious, or social tensions; endemic corruption; etc. |
■ Practical gender needs vs. strategic gender needs. “Practical gender needs” are based on local traditional gender roles and responsibilities and focus on immediate practical needs, such as water, food, shelter, and health. In contrast, “strategic gender needs” analyze systemic factors that limit women’s access to resources and benefits compared to men’s. The analysis and comparison of these two types of needs may help facilitate a sustainable, long-term mitigation response.

■ Intrahousehold dynamics and relations. It may be helpful to picture the household as a system that allocates resources among individuals, each of whom is supported by her or his own internal and external relations. In such a system, the modification of one part can affect the whole. Hence, a holistic understanding of the system is fundamental to estimate multiple social impacts of an external intervention.

**Stakeholders.** The stakeholder analysis should include the characteristics, interests, incentives, and mode of influence over the project, particularly elements that adversely affect the allocation of resources and control over the quality of design and implementation. Note that the degree of organization often affects the degree of visibility and the ability of groups to express and defend their interests. Vulnerable social groups are often not organized and for this reason need more support to be heard and included.

**Participation.** The development of communication strategies to share information and ensure the continuous flow of information contributes to participation. See Chapter 3, Communication in Post-Disaster Reconstruction. Beside a communication strategy that reaches all stakeholders, the skills of vulnerable and marginalized groups may need to be enhanced to ensure their participation in the project. Procedures to involve stakeholders in monitoring and evaluation are important. Be aware that participation, while a fundamental element for project planning, implementation, and evaluation, does not guarantee the desired results.

**Social risks and vulnerability.** Make sure that the particularly vulnerable groups are identified, defining vulnerability beyond the traditional so that is includes groups that are socially stigmatized (such as battered women) or marginalized (people infected with HIV or suffering from AIDS). The analysis should examine the nature and roots of these vulnerabilities in the context of socioeconomic trends in the country or region.

Presentation of Findings and Recommendations

For each topic in the table above (and others the consultants may identify during the assessment), the consultants should provide a systematic summary of (1) their findings as they relate to the housing reconstruction policy, program, or project under consideration; and (2) the significant corresponding social impacts they have identified. The team should present short- and medium-term recommendations for improving the social outcomes or mitigating any adverse social impacts of the project. The recommendations should be grouped in the way that the consultants believe will make them the most understandable during the review process and, in the final report, most useful for implementation. After an initial review by the technical committee and other stakeholders, as directed by the technical committee, the recommendations should be presented in a final report as a work plan that identifies both the sequence of activities and the party or parties responsible for carrying them out, focusing particularly on modifications in project design or social risk mitigation activities.

**Expected Results and Outputs of the Social Assessment**

The principal output is an in-depth SA for the policy, program, or project that will permit government and/or other agencies to mitigate any adverse social impacts or improve social outcomes by making adjustments in project design and designing a system for project monitoring. In the initial report, the consultants will present a strategy, plan, and schedule for the consultancy. The assessment itself should be presented in draft and final forms.

Time will usually be of the essence in carrying out this consultancy. The following schedule allows an SA to be completed in approximately 2 months. The following time intervals are ambitious, and, if necessary, can be adjusted, depending on the particular situation. Outputs will include:

1. an initial report, in which the consultants any recommendations for modification of the scope of work as well as a work plan and schedule for the presentation of outputs, presented within 7 days of the contract signing;
2. a draft report, presented within approximately 21 days of the acceptance of the initial report;
3. a final report, presented within 21 days of the receipt of comments on the draft report from the party or parties responsible for overseeing the assessment or 30 days of the presentation of the draft report, whichever is earlier.

The draft and final reports should be presented along with an executive summary or abbreviated version that can be widely circulated, in language(s) and a format that stakeholders can easily understand.

An effective review process will help guarantee the acceptance of the SA, and the consultants should take an active role in carrying it out, with assistance from government and the sponsor of the assessment. This may entail various meetings with government, the community, and other stakeholders; use of information technology; and/or other means to ensure wide distribution of the draft report and collection of feedback. Meetings may also be required once the report is finalized, to more widely disseminate the findings and recommendations.

**Annex 2 Endnotes**


2. According to the World Health Organization (WHO), “gender” refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women. Gender is an important consideration in SA.

3. The term “stakeholder” includes the people affected by the project (beneficiaries, affected population) and people able to influence it (organizations, institutions). See also Chapter 12, Community Organizing and Participation, for a discussion of this topic.

4. “Social risks” include country risks, political economy risks, institutional risks, exogenous risks, and vulnerability risks, among others.
Guiding Principles for Relocation

- An effective relocation plan is one that the affected population helps develop and views positively.
- Relocation is not an “either/or” decision; risk may be sufficiently reduced simply by reducing the population of a settlement, rather than by relocating it entirely.
- Relocation is not only about rehousing people, but also about reviving livelihoods and rebuilding the community, the environment, and social capital.
- It is better to create incentives that encourage people to relocate than to force them to leave.
- Relocation should take place as close to the original community as possible.
- The host community is part of the affected population and should be involved in planning.

Introduction

Relocation is defined as a process whereby a community’s housing, assets, and public infrastructure are rebuilt in another location. Relocation is sometimes perceived to be the best option after a disaster for one or more of the following reasons: (1) people have already been displaced by the disaster, (2) their current location is judged to be uninhabitable, or (3) relocation is considered the best option to reduce vulnerability to the risk of future disasters. In fact, relocation may be appropriate when the disaster is the result of site-specific vulnerabilities. Informal settlements in urban areas, for instance, are often located on sites where topography makes the site’s vulnerabilities impossible to mitigate. In rural areas, settlements on fault lines or in flood zones have vulnerabilities that may also be impossible to address.

However, relocation is often not the right solution: not all risks are site-specific and relocation itself entails numerous risks. Finding adequate sites for relocating disaster-affected communities can be an enormous challenge. Unsuitable new sites can lead to lost livelihoods, lost sense of community and social capital, cultural alienation, poverty, and people abandoning the new sites and returning to the location of their original community. The economic, social, and environmental costs of relocation should be carefully assessed before the decision to relocate is finalized, and other mitigation options should be considered. For instance, sometimes relocating only a portion of an at-risk community may be sufficient.

This chapter discusses the reasons for and against relocation of disaster-affected communities following a disaster, as well as the risks and risk mitigation strategies that can be used if relocation is necessary. It warns against choosing relocation out of organizational convenience without taking into consideration its potentially dramatic negative social consequences. This chapter is not about “resettlement” as defined by the World Bank and other international financial institutions (IFIs), nor is it a summary of IFI resettlement policies (which are discussed below). However, the approach recommended in this chapter is consistent in many ways with these policies.

Key Decisions

1. The lead disaster agency should coordinate with appropriate government agencies, including local government, to initiate an inclusive in-depth comparative analysis of disaster risk management (DRM) options that includes mitigation at the existing site.
2. As soon as relocation is raised as a serious post-disaster risk mitigation strategy, the lead disaster agency should initiate a process for defining the policy framework for relocation, the financing plan, the assistance strategy for those relocated, and the criteria for household selection and relocation site selection.
3. The lead disaster agency, in coordination with local government, should quantify the population subject to relocation through their joint participation in assessments that will provide these estimates.
4. Local government should carefully identify relocation sites, in the context of the post-disaster land use planning process, that offer the best potential to provide sustainable living and livelihood conditions to the relocated population.
5. **Agencies involved in reconstruction** should decide how to collaborate with government to establish common policies and criteria for relocation, and on the common procedures for applying them.

6. **Agencies involved in reconstruction** should decide and plan how their relocation projects will ensure the full restoration of livelihood and social conditions in the relocation site, including special attention to squatters and vulnerable groups.

7. **Populations subject to relocation and receiving communities** should demand that **agencies involved in reconstruction** give them a lead role in identifying sites and organizing relocation.

8. **Agencies involved in reconstruction** should decide how to organize and finance joint monitoring of relocation projects, and how to ensure that findings will be incorporated into ongoing projects.

### Public Policies Related to Relocation

Public agencies at the national and local government levels in disaster-affected countries may have relocation or involuntary resettlement policies that apply in post-disaster situations or that can easily be adapted. Using them helps ensure that post-disaster relocation criteria and assistance schemes are consistent with other instances of relocation in the same country or state. If policies were established in connection with infrastructure projects, such as highway widening when squatters needed to be relocated from a public right-of-way, policy implementation may fall within the jurisdiction of the Ministry of Public Works or the Social Investment Fund.

At the local government level, resettlement or relocation policy may be established in connection with slum upgrading, local infrastructure projects, city development master plans, or DRM plans. The local agency with jurisdiction may be the planning department, the public works agency, or the agency responsible for environmental management. Policies intended to guide relocation from high-risk areas or to disperse illegal settlements may be readily applicable or may need to be modified to apply in a post-disaster situation. Such policies may include useful methodologies for selecting among mitigation options.

The World Bank safeguard policy on involuntary resettlement (Operational Policy 4.01), as well as those of many international and bilateral agencies and regional development banks, is designed to assist displaced persons in their efforts to improve or at least restore their income and standard of living after displacement; however, it may not apply in a post-disaster situation. (See 66 Chapter 21, Safeguard Policies for World Bank Reconstruction Projects, for a description of how safeguard policies are applied in emergency [disaster] operations.) Resettlement policies are discussed later in this chapter.

International frameworks should be taken into consideration when the possibility of relocation arises, including the Pinheiro Principles on Housing and Property Restitution for Refugees and Displaced Persons.

Whatever policy framework or frameworks are used to define the relocation policy, the policy and related procedures should be transparently and publicly reviewed with and communicated to the affected population throughout planning and implementation. See 66 Chapter 3, Communication in Post-Disaster Reconstruction.

### Technical Issues

#### The Typology of Reasons for Displacement

Disasters are only one cause of displacement, whether economic or physical. Others reasons for displacement that countries experience, and that countries may have policies and know-how to address, include the following:

- Development-induced involuntary resettlement, including:
  - Relocation or loss of shelter
  - Loss of assets or access to assets
  - Loss of income sources or means of livelihood, whether or not the affected persons must move to another location

- Disaster-induced relocation
  - Voluntary
  - Involuntary

- Cyclical relocation, due to seasonal flooding, drought, or other factors

- Refugees from conflict

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2. World Bank OP/Bank Procedure (BP) 4.12, “Involuntary Resettlement,” apply principally to these instances of resettlement.
This chapter focuses on disaster-induced relocation, whether voluntary and involuntary. Development-induced involuntary resettlement is discussed below.

**Who Lives in Disaster-Prone Sites and Why**

The urban poor in particular often inhabit hazardous areas because they can’t afford to live elsewhere. The primary concern of people living in poverty is their immediate survival, which requires them to find affordable housing in close proximity to livelihood opportunities. For people with marginal incomes, even minor additional costs of rent, utilities, or transportation that might result from living in a safer location may be unaffordable. Safe and affordable sites are hard to find in areas where jobs are located, where land is likely to be scarce and prices higher. Poor urban dwellers often settle informally on public lands not suitable for development because of their inherent risk factors and then remain there for financial or political reasons until a disaster strikes.

**Why Relocation Is Sometimes Necessary**

Disasters will continue to displace people, often leaving no alternative but relocation. Relocation of vulnerable communities to physically safer places is often the best way to protect them from future disasters. Some locations are inherently unsafe, e.g., floodplains, unstable hillsides, and areas where soil is likely to liquefy as a result of seismic tremors. In particular, informal settlements of the urban poor are often located on highly vulnerable sites. In some cases, a disaster may have changed the topography, making a community’s original site unsuitable for habitation. Finally, it may be too costly to provide safety to communities located in areas likely to be subject to future disasters. Risk-mapping is a tool that can provide data on the degree, probability, and characteristics of these risks. However, a relocation process that incorporates international lessons learned can prevent avoidable human suffering. In Aceh, Indonesia, following the 2004 Indian Ocean tsunami, changes in topography greatly complicated site selection for new housing, as described in the case study below.

**Why Relocation Is Often Unsuccessful**

**Inadequacy of new sites.** One of the chief reasons for relocation failure is underweighting the welfare of the population as a criterion for the selection of the relocation site. Inappropriate land may be chosen for a relocation project because it can be acquired quickly, is owned or controlled by government, or is easily accessible with topography that favors rapid construction. For similar reasons, people resettled to protect them from one risk (e.g., tsunamis) may find themselves exposed to new ones (e.g., risks to livelihood, high crime, lack of services). The Disaster Risk Management section in Part 4, Technical References, describes the process for comparing risk mitigation options.

**Distance from livelihoods and social networks.** A lack of affordable land in areas close to sources of employment often necessitates relocation to peripheral areas where land is less expensive. Yet a key cause for unsustainable relocation solutions is the distance of the new site from vital resources (grazing land, food sources), relatives, social networks, livelihoods, and markets. In addition, bringing infrastructure and services to these remote areas may be extremely expensive, even when the land is cheap. The full cost analysis of new sites should include both infrastructure investment and the provision of services, such as public transportation. The case study on the 2004 Indian Ocean tsunami in Sri Lanka, below, reveals how livelihoods can be affected when vendors relocate further away from markets.

**Socio-culturally inappropriate settlement layouts.** Housing design, layouts, and construction are often to blame for the rejection or failure of post-disaster relocation projects, in particular in rural areas. The following are frequently cited reasons for the abandonment of a new site by a resettled community:

- Settlements are designed using unfamiliar land use patterns that do not permit the clustering of kin and neighborhood groups vital to social cohesion in rural areas.
There is insufficient space for tool sheds, livestock, and other agricultural needs, as well as poor soil conditions, along with lack of irrigation, tools, agricultural inputs, and livestock, making it difficult to reestablish farm-based livelihoods in agricultural areas.

Faulty house design and construction (such as the lack of thermal protection), limited plot dimensions, difficulty of extending and upgrading houses, and lack of space for domestic and livelihood activities.

Poor access and lack of public transportation, particularly to markets and social facilities.

Conflicts and competition with host or adjacent communities that do not receive any benefit from the relocation and lack structures for the governance of resources.

Social conflicts caused by moving communities with different ethnic, religious, or social backgrounds into close proximity.

Widows and female-headed households exposed to sexual and physical abuse.

Most of these risks also apply to reconstruction in-situ if the reconstruction plan entails land consolidation, changes in settlement layout, or introduction of new house designs and building technologies. A relocation plan (albeit abbreviated) may be needed even in these situations.

Lack of community participation. Consulting the people of a community, involving them in the selection and planning of a site, understanding their needs and values, and gaining insight from local experience and knowledge of the local environment can help reduce relocation risks. Importing outside labor to construct new settlements discourages community participation and deprives members of the community of employment opportunities. A lack of community participation can also hinder the development of a personal sense of ownership or responsibility for the home and settlement, which may lead to feelings of alienation and a prolonged dependency on external aid. The case study on the 2004 Indian Ocean tsunami reconstruction in India, below, describes a time-consuming, but successful, instance where communities took responsibility for selecting relocation sites.

Underbudgeting of relocation costs. Underestimating the cost of relocation is common and can undermine the entire process. Both hard costs (infrastructure, housing construction) and soft costs (facilitation, training, social assistance, temporary public services) should be estimated using conservative assumptions, and funded over a period of years, until communities fully adapt to their new location and livelihoods are reestablished. The estimates should include adequate provision for costs associated with assisting squatters or those without proof of land ownership and other land tenure issues. See the discussion of land tenure challenges in reconstruction in Chapter 7, Land Use and Physical Planning.

What Contributes to Successful Relocation?
Relocation of communities requires risk mitigation through well-planned and adequately financed programs that include such elements as land-for-land exchange, employment generation, ensured food security, improved access to health services, transportation to jobs, restoration of common properties, and support for community and economic development.

Relocation is more likely to be successful when:

- affected communities participate in critical relocation and implementation decisions (site selection, identification of basic needs, settlement planning, housing designs, and implementation);
- livelihoods are not site-specific and so are not disrupted;
- water, public transport, health services, markets, and schools are accessible and affordable;
- people are able to bring with them items of high emotional, spiritual, or cultural value (religious objects, salvaged building parts, statuary or other local landmarks);
- people belonging to the same community are resettled together to a new site;
- emotional, spiritual, and cultural attachment to the old site is not excessively high;
- housing designs, settlement layouts, natural habitat, and community facilities conform to a community’s way of life;
- social, environmental, and hazard risk assessments confirm that risk cannot be mitigated in the old location, while the community can be assured of the suitability of the relocation site;
- communication with target groups is frequent and transparent, and mechanisms to resolve grievances are effective; and
- relocation and assistance to mitigate its economic impacts are adequately funded over a reasonable period of time.
Unjustified Relocation
Relocation to new sites is often decided for “practical reasons” that ignore risk management considerations and result in a massive waste of financial and natural resources. Examples include:
- Relocation to avoid rubble removal, simplify land tenure issues, or minimize the number of stakeholders “interfering” in the reconstruction project.
- Relocation to reduce construction costs, without accounting for the cost of basic infrastructure and services, which can result in the building of houses or entire settlements that are later abandoned, sold by beneficiaries, or left unoccupied, due to the lack of services or costs to acquire them.

Involuntary Resettlement Policies
Definition of involuntary resettlement. Resettlement is a term used to describe direct economic and social losses resulting from displacement caused by land taking or restriction of access to land, together with the consequent compensatory and remedial measures. Resettlement activities in World Bank loans and projects are governed by the Safeguards Policy on Involuntary Resettlement, including Operational Policy (OP) and Bank Procedure (BP) 4.12. The policy promotes the participation of displaced people in resettlement planning and implementation and prescribes compensation and other resettlement measures. Countries that borrow from the Bank often prepare resettlement plans; therefore, numerous examples are available. For guidance on preparing a resettlement plan, see the annex to this chapter, How to Do It: Developing a Post-Disaster Resettlement Plan. Other international institutions, such as the Asian Development Bank (ADB) and the Inter-American Development Bank, have policies similar to OP/BP 4.12.

Resettlement policies may not apply following a disaster, because time does not allow for it or because the situation may not trigger the policy. Chapter 21, Safeguard Policies for World Bank Reconstruction Projects, describes how the World Bank’s safeguard policies are applied in emergency (disaster) operations.

In resettlement policies, relocation is identified as one of several strategies to consider when either economic or physical displacement is taking place, generally as the result of public investment projects or other changes in land use. The ADB Involuntary Resettlement Policy includes the following matrix of types of losses from displacement and the mitigation measures that should be evaluated in resettlement plans to compensate for them.

<table>
<thead>
<tr>
<th>Type of loss</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of productive assets, including land, income, and livelihood</td>
<td>Compensation at replacement rates</td>
</tr>
<tr>
<td></td>
<td>Replacement for lost incomes and livelihoods</td>
</tr>
<tr>
<td></td>
<td>Income substitution and transfer costs during reestablishment plus income restoration measures in the case of lost livelihoods</td>
</tr>
<tr>
<td>Loss of housing, possibly entire community structures, systems, and services</td>
<td>Compensation for lost housing and associated assets at replacement rates</td>
</tr>
<tr>
<td></td>
<td>Relocation options, including relocation site development</td>
</tr>
<tr>
<td></td>
<td>Measures to restore living standards</td>
</tr>
<tr>
<td>Loss of other assets</td>
<td>Compensation at replacement rates</td>
</tr>
<tr>
<td></td>
<td>Replacement</td>
</tr>
<tr>
<td>Loss of community resources, habitat, cultural sites, and goods</td>
<td>Replacement</td>
</tr>
<tr>
<td></td>
<td>Compensation at replacement rates</td>
</tr>
<tr>
<td></td>
<td>Restoration measures</td>
</tr>
</tbody>
</table>

Comparing development-related and disaster-related displacement. Post-disaster relocation, like resettlement, may also be involuntary, and the same strategies used to reduce or avoid involuntary resettlement impacts can sometimes be applied in relocation. These include (1) mitigating the risks that are causing relocation to be evaluated as an option, using physical preventative or physical coping and adaptive measure (see Part 4, Technical References, Disaster

Risk Management in Reconstruction, for more on disaster risk reduction options; (2) redesigning or replanning the physical site to accommodate all residents (internal relocation); and (3) providing incentives for residents to relocate themselves (voluntary relocation).

At the same time, the situation that confronts government, agencies, and households involved in infrastructure-related relocation is different from that encountered in a disaster-related resettlement, for a number of reasons that may affect the quality of the outcomes. In the case of a disaster, for instance, the land that is taken is often left vacant, rather than being transformed into something else, e.g., a roadway overpass, as it is with development-related resettlement, making it possible for the displaced population to return and making it necessary for local jurisdictions to prevent this from happening. There is ordinarily less time available to plan and implement a disaster-related relocation than there is a development-related resettlement program, which creates the risk that the full range of options may not be evaluated. If the property market has been affected by the disaster, voluntary resettlement may not be realistic, without the affected household moving a significant distance away from the area affected by the disaster. Properly planned resettlement may be a requirement of IFI financing for development projects, and, if so, technical and financial support are likely to be provided to assist in carrying it out, in contrast with post-disaster relocation, where neither of these factors may be present. Last, the population affected by a disaster may have been dispersed, making it more difficult to develop an approach to relocation that satisfies the entire community and keeps it intact, in contrast to a development-related resettlement project where there is time for participatory resettlement planning.

**Risks and Challenges**

1. Underestimation by decision makers of the social consequences of post-disaster relocation, in spite of the growing body of research that shows that it is rarely successful.
2. Loss of livelihoods, impoverishment, social and cultural alienation, loss of social coherence, increased morbidity, and loss of access to common property for the relocated community.
3. Conflicts and competition with hosting communities over scarce resources, such as land, food, fuel, water, and fodder for livestock.
4. Abandonment of relocation sites by relocated populations and return to areas where there may be inadequate provision for them or unsafe conditions. Failure of local officials to anticipate this event.
5. Insufficient consideration of the option of providing incentives to encourage voluntary relocation.
6. Government inaccurately reporting that relocation has taken place voluntarily in order to avoid the preparation of social and environmental impact assessments and relocation action plans.
7. Failure to recognize and mitigate risks of reconstruction projects in the same location that entail land consolidation, major demolition, and development of new settlement layouts.
**Recommendations**

1. Avoid relocation if at all possible. Especially avoid relocation to distant sites. Work hard to keep communities together.
2. If relocation is being considered, carry out a detailed participatory assessment of the environmental, social, and economic risks of relocation and of the cost of risk mitigation strategies for alternative sites.
3. Governments should not only avoid relocation in their own housing programs but should also regulate relocation in the reconstruction projects of nongovernmental agencies (private corporations and nongovernmental organizations [NGOs]), which often opt for relocation to gain visibility and for managerial convenience.
4. If relocation is unavoidable, involve the community in the decision-making processes by creating a community relocation committee, among other means.
5. Agencies should engage the services of qualified and experienced relocation specialists to design and implement relocation plans.
6. The technical, financial, and institutional feasibility of providing basic services such as water, electricity, health services, schools, markets, policing, and public transport in the relocation site must be demonstrated during project planning, and all arrangements put in place in advance of the relocation.
7. Use the relocation plan to carefully define, with the assistance of experts, how people will be assisted to restore their livelihood activities or develop alternative livelihoods in the relocation site.
8. Plan for the relocation of individual or collective cultural properties.
9. Assess and mitigate the impact of relocation on the hosting community, and be prepared to prevent social conflicts and problems of crime, delinquency, and secondary displacement.
10. Design, budget for, and implement measures to prevent the return of the relocated community or others to the site from which the relocation took place.
11. Be conservative when estimating the time a relocation program will take and the costs entailed.

**Case Studies**

**1998 Hurricane Mitch, Honduras**

*The Consequences of Relocation without Prior Infrastructure Planning*

As a camp-exit strategy, families living in temporary shelter camps in Tegucigalpa, Honduras, after Hurricane Mitch, were assisted with a voucher program that provided US$6000 for the acquisition of a new house. This voucher program was to be combined with generous subsidies being offered by local and international NGOs in new relocation projects that they were building. The only affordable land available for the relocation projects was located in the Amarateca Valley, 35 kilometers from the center of Tegucigalpa. NGOs developed housing projects for more than 1,200 families who could contribute the voucher amount, and provided them with varying amounts of additional subsidies. However, these efforts were uncoordinated and poorly planned. The lack of planning was evident in the fact that at many of the sites there had been no arrangement with government and public utilities to provide infrastructure services (e.g., water, sewerage, electricity, and solid waste collection) and social services (e.g., schools, transportation, and health clinics) on a timely basis. Under pressure from the relocating families and from government (which was pushing to get families out of the shelters), relocation took place with improvised, temporary solutions (e.g., pit latrines and water supplied by tanker trucks). In some cases, individual housing projects included internal piped networks for water supply and sanitary sewerage, but the deep wells required for water supply and the facilities for wastewater treatment were not completed until years after the families had occupied the projects. As a result, there were sanitation and health hazards, defaults on house payments, loss of livelihood opportunities, disruption of social networks, and even social unrest and insecurity in the new settlements, all of which represented obstacles to developing a real sense of community. Ten years after the emergency, however, the Valley of Amarateca had attracted new employment opportunities ranging from textile factories, grain processors, and automobile parts assembly, attributed partly to the concentration of population in this location.

2004 Indian Ocean Tsunami, Sri Lanka
The Impact of Post-Tsunami Relocation on People’s Livelihoods and Housing Choices

After the 2004 Indian Ocean tsunami, the government of Sri Lanka announced that no reconstruction would be allowed within a buffer zone, which varies from 100 to 200 meters along the water. As a result, thousands of households had to be resettled. Research conducted in 2008 using a random sample of 211 households selected from 17 relocation sites in the Hambantota district of the country found that, while 96 percent of the households in the sample considered their new houses similar or superior in quality to their pre-tsunami houses, relocation generally had had an impact on their livelihoods. This was due to several factors, among them that in their pre-tsunami homes, many of the families had goats, cattle, and poultry; homestead gardens; and coconut trees (a staple food in Sri Lanka). They also enjoyed access to free fish. Livestock and poultry provided food security and constituted critical assets in case of financial emergencies. This changed in the relocation sites, where people were not able to keep the same number of animals. The number of animals owned by the sample households decreased from more than 6,400 before the tsunami to only 107 after the tsunami. People reported that they were consuming less fish, vegetables, and fruits than before the tsunami. Second, relocation led to a reduction in earning opportunities, in particular for women and the poor. The distance to markets from the relocation sites meant that the small incomes generated from micro-businesses in their homes, such as food processing, were now not sufficient to cover the transport expenses from their new homes to the market. As a result, there was a 59 percent decrease in the number of family members who were earning anything among the 211 households in the sample.

Reconstruction in Hambantota was unusual in that it produced more houses than were needed for the disaster-affected population, for several reasons. Being the home constituency of the country’s president, it attracted generous resources from national and international NGOs; some families were not willing to relocate to new sites for reasons not picked up in the needs assessments; and delays in developing relocation sites led some families to purchase lands and construct their own houses using the housing grants before the abolition of the buffer zone policy. Also, because some people had not relinquished their pre-tsunami property, they were able to move back to their original housing sites after the buffer zone was reduced. For these reasons, some houses that were built outside the buffer zone by international NGOs for tsunami-affected communities in Hambantota were later given to non-affected households, for example, to people displaced by the construction of a new port. As of mid-2009, 63 percent of houses in the 17 relocation sites analyzed were occupied by people affected by the tsunami.

Officials involved in this reconstruction program in Sri Lanka have pointed out the importance of addressing the following issues in reconstruction: (1) the need to engage NGOs and to align their priorities with larger reconstruction program objectives; (2) the importance of clarity in public policies regarding relocation and occupation of environmentally sensitive areas, such as the buffer zone; and (3) how to simultaneously weigh and address the livelihood and housing reconstruction requirements of the same population.


2004 Indian Ocean Tsunami, Nagapattinam, India
Finding Land for Relocation through Community Participation

More than 30,000 families being suddenly rendered homeless is a nightmare under any circumstances. But in a backward district like Nagapattinam, India, it is a disaster—even worse when diverse cultures and livelihood systems are thrown into the mix. Although relocation from vulnerable coastal areas was deemed necessary after the 2004 Indian Ocean tsunami, moving fishing communities whose lifeline is the waterfront was not so easy. Relocation decisions needed to factor in safety, proximity to traditional livelihoods, and safeguarding the community cohesion that remains strong in traditional communities like fishers. The basic tenet of relocation decisions in Nagapattinam was that a hamlet—usually consisting of the same community—would be treated as an indivisible unit. While the decision to proceed in this manner was unanimous, two-thirds of Nagapattinam is below sea level and much available vacant land was considered inappropriate for housing, so the identification of suitable land took nearly six months. Ten teams of local administration officials searched geographically demarcated areas for appropriate land and initiated negotiations. However, no agreement could be finalized by the local administration until the community approved the land. On some occasions, as many as eight rounds of negotiations with
the community were necessary before final approval was won. There were also cases where land
was rejected by the community. In one case, where the land was away from the sea front, the local
administration agreed to widen the backwater channel to allow boats to be brought to the site. In
another case, the community objected to the proximity of the land to a cremation site, so a wall
was built to separate the two. In a third case, prime property that had earlier belonged to Tata Steel
Rolling Mills was handed over to the community when it was the only property the community could
agree on. In all, 364 hectares were bought by the government of Tamil Nadu through negotiation
with the land owners at a cost of US$5 million. The local administration’s willingness to be sensitive
to the communities’ needs may have delayed relocation, but it ensured that citizens were satisfied
with their decisions, and their basic right to a dignified life was preserved.

Source: C. V. Sankar, India National Disaster Management Authority, 2009, personal communication.

2008 Typhoon Frank, Iloilo City, Philippines
NGO Support for Relocation of Vulnerable People Using Low-Interest Loans
The flooding that resulted after Typhoon Frank lashed the Western Visayas region of the Philippines
in June 2008 covered 80 percent of Iloilo City, a city of more than 400,000 people. The typhoon killed
24 people, damaged more than 6,000 houses, and affected 53,000 families.

While Typhoon Frank was obviously an extreme event, the urban poor located on Iloilo’s river banks
actually face flooding every year during the monsoon period. The Homeless People’s Federation
Philippines (HPFP), one of the biggest NGOs collaborating with the urban poor in the Philippines,
had previously organized a city-wide network, the Iloilo City Urban Poor Network (ICUPN),
consisting of three major Iloilo NGOs (HPFP; Iloilo City Urban Poor Federation, Inc. [ICUPFI]; and the
Iloilo Federation of Community Associations). ICUPN had been working with local government units
(LGUs) for some time to develop a flood control plan to address the exposure of poor households
to the flooding problem. When implementation of the plan began after Typhoon Frank, land for
relocation originally acquired by the LGUs in early 2000 was assigned to the Typhoon Frank-affected
families. The land covered 16.2 hectares and was both in the city and within 6 km of where people
had originally lived. Various organizations received land for reconstruction: HPFP received 1.5
hectares and constructed 172 housing units. The affected families, selected by HPFP and ICUPN in collaboration
with the communities, could choose from among three housing models, with prices between US$1,770 and
US$3,650. The houses were purchased using low-interest loans (between 3 percent and 6 percent) from the Urban
Poor Development Fund. A key factor in the success of the program was that, before the typhoon, the community
had been organized into saving groups. These groups are now purchasing the land, and each family will receive
its individual land title only after the loan is paid back. Families who cannot manage the loan payments can
provide “sweat equity” during construction. While this approach has many positive aspects, one issue was the lack
of infrastructure on the relocation sites when first settled. The aim is to complete the infrastructure incrementally
over the next 3–5 years.

Source: Sonia Cadormiga, 2009, “Thinking City-Wide in Iloilo City, Philippines,
Notes on a Visit to Iloilo City,” HPFP (unpublished).
for homebuilding before the tsunami and was even more so after the topographic changes. The Rehabilitation and Reconstruction Agency of Aceh and Nias (Badan Rehabilitasi dan Rekonstruksi [BRR]) took some measures to mitigate this problem, but they often did not have the desired effect. For example, in Lam Awe, BRR built an embankment that ended up impeding the runoff of both storm water and sewage, due to the lack of drainage outlets or sluices. In other villages, land-filling activities carried by the BRR actually increased the vulnerability of some houses previously built by UPLINK. The photo, above, shows some results from these missteps. They illustrate the risks associated with the lack of land use planning and demonstrate that there are cases when post-disaster in-situ reconstruction is not the most appropriate approach, since the consequences can be as devastating as the disaster itself.

**2004 Indian Ocean Tsunami, Aceh, Indonesia**

Unsustainable In-Situ Reconstruction due to Topographic Changes

Aware of the undesirable social consequences of relocation, the Indonesian NGO Urban Poor Linkage Indonesia (UPLINK) successfully advocated against government’s resettlement plan and for people’s right to return to their native villages in Aceh, Indonesia, after the 2004 Indian Ocean tsunami. Yet the tsunami had caused significant changes in local topography that made in-situ reconstruction inadvisable in some cases. In several villages, houses were uninhabitable due to water intrusion, and significant land areas had also been lost to the sea. As a result, people returning to their villages were forced to build houses in former paddy fields, despite the fact that the land was too low for homebuilding before the tsunami and was even more so after the topographic changes. The Rehabilitation and Reconstruction Agency of Aceh and Nias (Badan Rehabilitasi dan Rekonstruksi [BRR]) took some measures to mitigate this problem, but they often did not have the desired effect. For example, in Lam Awe, BRR built an embankment that ended up impeding the runoff of both storm water and sewage, due to the lack of drainage outlets or sluices. In other villages, land-filling activities carried by the BRR actually increased the vulnerability of some houses previously built by UPLINK. The photo, above, shows some results from these missteps. They illustrate the risks associated with the lack of land use planning and demonstrate that there are cases when post-disaster in-situ reconstruction is not the most appropriate approach, since the consequences can be as devastating as the disaster itself.


**Resources**


Systematic early planning should be used to identify the potential adverse impacts of resettlement and to mitigate them. The resettlement plan (also called a resettlement action plan) is a useful tool used by both the World Bank and the International Finance Corporation for planning resettlement. Rebuilding houses is a priority in resettlement. But a community is made not only of physical structures; it has social, economic, and cultural dimensions that are fundamental for its well-being and functioning. The resettlement plan can assist in addressing the entire scope of the resettlement impact. A summary of all World Bank safeguard policies is found in Chapter 21, Safeguard Policies for World Bank Reconstruction Projects.

Objectives of a Resettlement Plan

Resettlement can have its benefits and its costs. The resettlement plan is used to identify ways to maximize improvements in the quality of life of the resettled community and to minimize and compensate for the costs. The general objective of the resettlement plan is to plan a resettlement process so that can be effectively carried out in a way that supports the long-term development objectives of the affected population.1

The specific objectives of a resettlement plan are to operationalize resettlement by outlining eligibility criteria for the affected parties, analyzing and proposing appropriate levels of assistance, and helping program and schedule the activities that will take place during the resettlement process, as well as to detect and minimize possible adverse impacts and involve the population in designing and implementing the resettlement program.

Methodology for Preparing a Resettlement Plan

The resettlement plan process can use multiple tools and techniques, and can incorporate new and innovative techniques, as desired. Some recommendations on organizing the process follow.

- The development of a resettlement plan can take several months and should be overseen at the senior level by the manager of the reconstruction program or, preferably, a resettlement manager.
- To oversee development and implementation, it is useful that a resettlement unit be established, managed by the resettlement manager. The resettlement manager supervises staff and any consultants, oversees activities of the task force involved with planning resettlement activities, and ensures involvement of the community and coordination among all parties.
- Consultants with relevant expertise are often needed to help the task force conduct surveys and examine the complex social, environmental, economic, and physical dimensions of resettlement. Consultants can provide objective input to a process that may become conflictive.
- A resettlement task force should be created and may assist directly in the preparation of the plan (see Resettlement Preparation Activities and Potential Agencies Responsible, below, for a proposed breakdown of tasks). The task force should include representatives of the project sponsor, relevant government line and administrative departments, local governments, community organizations, and NGOs involved in support of resettlement, as well as representatives of the affected communities. The importance of direct involvement of implementing agencies in the development of the plan cannot be underestimated.
- A community resettlement committee should be created to articulate the interests and needs of the affected population and to facilitate the communication among the community, the consultants, and the resettlement task force.

Sources of Information

A combination of qualitative and quantitative methods should be used to obtain diverse information reflecting the complexity and multi-dimensionality of the relocation experience. Suggested tools include surveys, census, interviews, mapping, photographic documentation, and participatory data gathering, among others.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Actions</th>
<th>Agency involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relocation policy</td>
<td>Develop resettlement policy and minimum standards by considering national law, international agreements, and donor requirements.</td>
<td>National government  Resettlement unit  International humanitarian and financial institutions  Local governments  International and local NGOs  Affected population</td>
</tr>
<tr>
<td>2. Census and socioeconomic surveys</td>
<td>Conduct detailed survey and data analysis.</td>
<td>Resettlement unit  Local government officials  NGOs  Consultants for design of survey and analysis of survey data</td>
</tr>
<tr>
<td>3. Land acquisition assessment</td>
<td>Conduct detailed land survey of plots to be acquired and confirm ownership.</td>
<td>Resettlement unit  Land registry office  NGO (field verification)</td>
</tr>
<tr>
<td>4. Determination of eligibility criteria and resettlement entitlements</td>
<td>Determine legal obligations for compensation and resettlement. Agree on additional assistance for compensation and resettlement.</td>
<td>Project agency or resettlement unit  Government agencies (legal, financial, technical, and administrative)</td>
</tr>
<tr>
<td>5. Consultations</td>
<td>Inform DP population. Discuss project area or route and extent of land acquisition. Discuss valuation and grievance procedures. Establish committees.</td>
<td>Resettlement unit  NGOs</td>
</tr>
<tr>
<td>6. Feasibility study of resettlement sites</td>
<td>Determine viability of residential, commercial, and agricultural relocation sites.</td>
<td>Resettlement unit  NGOs  Relevant government agencies (land use planning, soils, urban development, water and sanitation, and so forth)</td>
</tr>
<tr>
<td>7. Feasibility of livelihood restoration measures</td>
<td>Determine the technical, economic, and financial feasibility of each proposed livelihood restoration strategy before it is included as an option to be made available to affected people.</td>
<td>Resettlement unit  Relevant government agencies for livelihood restoration (planning, social departments)  Labor agency  Employment agency  Welfare agencies  Finance and microfinance organizations  Consultants to conduct the economic feasibility studies of proposed strategies  NGOs</td>
</tr>
</tbody>
</table>
Various elements of the resettlement plan will require careful analysis, often by experts with experience in post-disaster resettlement. Some of the most important technical inputs are described in the following table. These descriptions can also be used in the development of consultant terms of reference.

### Technical Inputs Needed for Resettlement Plan

<table>
<thead>
<tr>
<th>Topic</th>
<th>Technical input</th>
</tr>
</thead>
</table>
| A. Identification of affected population and project impacts         | 1. Census that enumerates all affected people (including seasonal, migrant, and host populations) and registers them according to location. This census will be used to determine eligibility for resettlement assistance and to exclude the ineligible.  
2. Thematic maps that identify population settlements, infrastructure, soil composition, natural vegetation areas, water resources, and land use patterns.  
3. Inventory of lost and affected household, enterprise, and community assets, including land use/land capability, houses and associated structures, other private physical assets, private enterprises, common property resources, infrastructure, and cultural property.  
4. Socioeconomic analysis of income sources and livelihood strategies to serve as the basis for developing livelihoods restoration program. |
| B. Resettlement policy development                                  | 1. Identification and analysis of minimum standards to be applied as required by government or funding sources.  
2. Summary of local laws, decrees, policies, and regulations as they apply to resettlement and comparison with the minimum standards.  
3. Development of policy and standards, and consultation with affected groups and stakeholders. |
| C. Determination of eligibility criteria and resettlement entitlements | 1. Analysis of any compensation guidelines announced by government or project sponsors, and development of alternatives, including estimates of eligibility numbers, estimated cost, and delivery mechanisms. Common forms of compensation are land-for-land and cash. However, the post-disaster reconstruction assistance program may substitute for any resettlement compensation scheme.  
2. Analysis and strategy for addressing difficulties in applying eligibility criteria, such as absence of legal title to land. An entitlement matrix can identify the losses classified according to land tenure situation (owner, renter, squatter, etc.) and the scope of any difficulties. Include disadvantaged groups, such as women, the elderly, the handicapped, or ethnic minorities, in this analysis.  
| D. Land acquisition assessment                                     | 1. Preparation of criteria for identification and analysis of sites that covers:  
   - Quantity of land required  
   - Location of land required  
   - Use of land required  
   - Estimated number of residential  
   - Tenure status of present users  
   - Presence of public or community infrastructure |
| E. Feasibility study of resettlement sites                          | 1. Methodology for technical feasibility studies for resettlement sites (topographical, soil, irrigation, groundwater, land use planning, and public services issues).  
2. Methodology to reach agreement on social acceptability of sites, which may require direct work with community to clarify criteria and establish decision-making processes. |

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For access to additional resources and information on this topic, please visit the handbook Web site at www.housingreconstruction.org.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Technical input</th>
</tr>
</thead>
</table>
| F. Design of livelihood restoration program | 1. Analysis of any livelihood restoration strategies announced by government or project sponsors, or proposed by economic groups (such as farmers, fishers, tradespeople) and development of alternatives, if necessary, including estimates of eligibility numbers and estimated cost, and delivery mechanisms.  
2. Development of livelihood restoration plans, by subgroups, for major types of livelihood:  
   - Land-based livelihoods  
   - Wage-based livelihoods  
   - Enterprise-based livelihoods  
3. Analysis of need for special assistance for vulnerable and socially marginalized groups and those whose livelihood is especially affected by relocation.  
4. Identification of assistance that can be provided by specialized organizations (professional, trade, marketing chains) and means of coordination.  
5. Identification of livelihood assistance that may be needed in addition to compensation for lost assets (financial support, technical assistance, retraining). This may be combined with long-term efforts to overcome deep-rooted problems with economic ramifications, such as poverty or social discrimination. |
| G. Participation, consultation, and communication | 1. Design of participation strategy for all phases of relocation program.  
2. Identification of stakeholders and process for consultation with them.  
3. Development of two-way communication strategy, to inform the affected population and to involve them in monitoring and providing feedback to executing agencies. |
| H. Grievance redress | 1. Development of registration process.  
2. Establishment of policy and operational procedures to address grievances. This may include provision for civil courts procedures if other options fail.  
3. Communication plan for familiarizing population with grievance procedures. |
| I. Resettlement implementation | 1. Identification of roles and responsibilities of public and private entities involved in implementation, including funding agencies of individual projects, local governments, NGOs, the affected population, and the task force and advisory group.  
2. Identification of needs for training, technical assistance, or institutional strengthening to improve the implementation of the resettlement plan.  
3. Development of and agreement on work plans for each group or entity, using the resettlement plan as the overall frame of reference.  
4. Agreement on coordination mechanisms to be used during project implementation.  
5. Identification of needs, funding, and terms of reference for consulting services needed during implementation, including those necessary to implement the monitoring plan. |
| J. Monitoring, evaluation, and completion audit | 1. Development of a monitoring plan that covers inputs, process, outputs, and impacts. (See Note 1, below.)  
2. The following aspects of the resettlement plan should be monitored:  
   - The physical progress of resettlement activities  
   - The disbursement of compensation  
   - The effectiveness of public consultation and participation activities  
   - The sustainability of income restoration and development efforts  
3. Using census data and other information, development of the project baseline before implementation begins.  
4. Assurance that sufficient resources have been budgeted to monitor the affected population for an extended period post-resettlement and to carry out an ex post audit.  
5. Design of mechanisms to involve the affected population in monitoring and evaluation activities. |
| K. Project budget and financial procedures | 1. Development of a program budget based on realistic assumptions about eligible population, per household assistance costs, program administration costs, and time to implement.  
2. Analysis of options for indexing financial assistance to mitigate effects of local currency fluctuation and price inflation.  
3. Establishment of a system that links project budget with the implementation schedule and that can monitor disbursements and disbursement patterns.  
4. Design and implementation of financial procedures to disburse funds to implementing agencies, communities, and/or households, depending on financial assistance strategy. |
Monitoring Resettlement

Permanent monitoring identifies problems or potential conflicts early and allows adjustments on time. Monitoring should be carried out by an independent entity for a number of years beyond the completion of the resettlement plan to evaluate the long-term impacts. Three suggested components of the monitoring system are (1) performance monitoring—an internal management function to measure input indicators against proposed timetable (or milestones) and budget; (2) impact monitoring—to gauge the effectiveness of the resettlement plan and its implementation in responding to the affected communities needs; and (3) completion audit—to measure output indicators, such as productivity, gains, livelihood restoration, and development impact against baseline. This is undertaken when all resettlement plan activities are completed. Suggested information sources and indicators are shown below. For more guidance on post-disaster reconstruction monitoring and evaluation, see Chapter 18, Monitoring and Evaluation.

Sources of Resettlement Monitoring Information

<table>
<thead>
<tr>
<th>Activity</th>
<th>Source of information</th>
<th>Examples of indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance monitoring (inputs, process, and outputs)</td>
<td>Information from monthly or quarterly narrative</td>
<td>Public meetings held</td>
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<tr>
<td></td>
<td></td>
<td>Censuses, inventories, assessment, interviews completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grievance redress procedures in place and functioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compensation payments disbursed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Housing lots allocated, infrastructure completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Income restoration and development activities initiated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring and evaluation reports submitted</td>
</tr>
<tr>
<td>Impact monitoring</td>
<td>Quarterly or semiannual quantitative and qualitative surveys</td>
<td>Quantitative</td>
</tr>
<tr>
<td></td>
<td>Consultation of affected population regarding their experiences, if possible, to develop baseline indicators</td>
<td>Education: primary school attendance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agriculture: average land/household, production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work: employment, wage, income</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health: birth and death rate, infant mortality, incidence of diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interviews</td>
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<td></td>
<td></td>
<td>Focus group discussions</td>
</tr>
<tr>
<td>Completion audit</td>
<td>External assessment based on performance and impact monitoring reports, independent surveys, and consultation with affected persons</td>
<td>The same indicators are used as during the performance monitoring and impact monitoring, with a particular focus on surveys and consultations.</td>
</tr>
</tbody>
</table>

Expected Outputs

The principal output of the resettlement planning process is a resettlement plan that is viewed positively by the affected population and is acceptable to other stakeholders. Acceptability by both groups will be a function of the level and quality of participation that has taken place during the development of the plan. The resettlement plan then serves as a guide during implementation. The resettlement plan must reflect the unique features of the project context, disaster scale, and institutional capacity, and must be open to modifications during implementation, as needs and priorities emerge.

Annex Endnote

1. If the World Bank safeguards policy on resettlement (OP 4.12) applies in a post-disaster reconstruction project, a Policy Framework and a Process Framework will need to be prepared, in addition to a Resettlement Plan. This annex uses World Bank and IFC frameworks for resettlement to provide general guidance on good practice. Refer to World Bank, 2004, Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects (Washington, DC: World Bank), for extensive guidance on World Bank requirements.
Guiding Principles for Reconstruction Approaches

- Households begin reconstruction the day of the disaster and government—guided by its reconstruction policy—may have to play catch-up in order that households and builders conform to, or participate in, any proposed reconstruction approach.
- Communities and households must have a strong voice in determining the post-disaster reconstruction approaches and a central role in the reconstruction process.
- The reconstruction policy must address the needs of households in all categories of tenancy: owners, tenants, and those without legal status. More than one reconstruction approach will probably be employed.
- The building approaches adopted after disasters should be as similar as possible to those used in normal times for similar households and should be based on their capacities and aspirations.
- Building codes and standards for reconstruction should reflect local housing culture, climatic conditions, affordability, and building and maintenance capacities, and improve housing safety.
- Reconstruction should contribute to economic recovery and the restoration of local livelihoods.
- Good planning principles and environmental practices should be incorporated, whatever the reconstruction approach.

Introduction

Post-disaster housing reconstruction can be undertaken through different approaches, which vary principally in terms of a household’s degree of control over the reconstruction process. The choice of the best reconstruction approach—or approaches—to be employed is context-specific and should take into consideration (1) reconstruction costs; (2) improvement in housing and community safety; (3) restoration of livelihoods; (4) political milieu; (5) cultural context; and (6) people’s own goals for well-being, empowerment, and capacity. Consultation with the community and evaluation of requirements and capacities is critical before deciding on any reconstruction approach.

For analytical purposes, this chapter makes a distinction among five reconstruction approaches that may be pursued after a disaster. These approaches are not mutually exclusive and should be understood as fluid categories that are often found in combination. In addition to the construction of permanent houses, these approaches apply to projects of substantial repair and retrofitting and to transitional shelter. Considerations in deciding whether to formally incorporate support for transitional shelter in the reconstruction approach are discussed in Chapter 1, Early Recovery: The Context for Housing and Community Reconstruction.

- **Cash Approach**: Unconditional financial assistance is given without technical support.
- **Owner-Driven Reconstruction**: Conditional financial assistance is given, accompanied by regulations and technical support aimed at ensuring that houses are built back better.
- **Community-Driven Reconstruction**: Financial and/or material assistance is channeled through community organizations that are actively involved in decision making and in managing reconstruction.
- **Agency-Driven Reconstruction in Situ**: Refers to an approach in which a governmental or nongovernmental agency hires a construction company to replace damaged houses in their predisaster location.
- **Agency-Driven Reconstruction in Relocated Site**: Refers to an approach in which a governmental or nongovernmental agency hires a construction company to build new houses in a new site.

The authors of this handbook advocate for what the World Bank and several other agencies have defined as owner-driven reconstruction, which has proven to be the most empowering, dignified, sustainable, and cost-effective reconstruction approach in many types of post-disaster situations. As one reconstruction expert aptly stated: “It is better to have 100,000 people each concerned...”
about one house than to have 100 people concerned about 100,000 houses.” Experience shows that empowering people to manage their own recovery and reconstruction, both individually and as a community, will be faster and more efficient, and will encourage people to use their creativity and to mobilize their own resources. If they are waiting for others to take care of them, they can become disempowered and may be more apt to complain and less likely to contribute. Of course, not all reconstruction situations will lend themselves to this approach, as explained in this chapter.

Key Decisions

1. **Government** should decide on the policy for housing and community reconstruction, based on the results of the damage and loss assessment, and in consultation with the affected community and the lead disaster agency. Important decisions include: the reconstruction approach or approaches to be employed; the financial contributions to be made by various parties, including households; mechanisms for coordination; and the administrative and project management procedures that all agencies will follow.

2. The lead disaster agency should determine, in consultation with government financial officials, the level of assistance that will be provided for transitional sheltering, repairing, retrofitting, and reconstruction, and on the system for delivering funds. Government may want to impose a maximum assistance level for nongovernmental agency projects to reduce competition among agencies. See Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance.

3. **Agencies involved in reconstruction** should agree with government on performance benchmarks for all reconstruction approaches and on reporting procedures, and collaborate on establishing the baseline and the monitoring system.

4. **Affected communities** should decide which reconstruction approach or approaches are most suitable for them and collaborate with government in the selection process. They should also decide how they prefer to organize themselves during reconstruction and should have the right to select which agencies will assist them and agree on the form of assistance. Depending on the community’s political, social, and economic characteristics, organization of the community and collective decision making may require outside facilitation and support.

5. Whatever the approach, **local governments** must direct those aspects of reconstruction related to land use and physical planning and the regulation of construction. See Chapter 7, Land Use and Physical Planning.

Public Policies Related to Reconstruction Approaches

Unless government has a disaster management plan, there are unlikely to be public policies at either the national or local level that specifically address post-disaster reconstruction approaches. Yet there may be national or local housing sector programs that provide new housing to low-income people or subsidies for upgrading that can serve as a starting point for defining the post-disaster housing reconstruction approach.

Government should take an active role in setting the rules for and overseeing the activities of all agencies involved in reconstruction. It should provide the appropriate regulations and guidelines so that agencies conform to the following good planning and construction principles.

- Consistently apply good planning principles and conform to local development plans.
- Conform with local building codes and standards.
- Minimize environmental impacts in construction, site planning, and building design.
- Ensure community participation in all aspects of development, including those managed by outside agencies and private contractors.
- Maintain or improve the tenure status of households during the reconstruction process.

Public policies in other sectors may influence decisions on the reconstruction approach as well. Refer to Chapter 7, Land Use and Physical Planning; Chapter 9, Environmental Planning; and Chapter 11, Cultural Heritage Conservation, among others.

Technical Issues

The following are descriptions of five reconstruction approaches frequently used in post-disaster reconstruction, including a discussion of the advantages and disadvantages of each.
The Cash Approach (CA)
With this reconstruction approach, support for repair and reconstruction of damaged houses is provided exclusively by unconditional financial assistance. Any category of tenants, including squatters, may be entitled to and benefit from cash assistance, depending on the policy.

CA is appropriate for disasters that have a relatively limited impact and where housing damage was not caused by shortcomings in local construction practices. Emphasis with CA is on the distribution of financial assistance with minimal attention given to enabling measures. This approach may give affected people the choice to use the assistance based on their own priorities, which may not necessarily be housing. Some people may use the cash to migrate out of the disaster zone, for instance, if that is what they judge to be their best alternative.

Experiences with the Cash Approach
- After the 2004 floods in Santa Fe, Argentina, the World Bank supported a government CA program for housing repair and reconstruction.

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<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages and risks</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most cost-effective, rapid delivery of aid to households.</td>
<td>May reproduce pre-disaster vulnerabilities.</td>
<td>Use CA only when damage is not severe and is not attributed to poor construction or poor building code enforcement.</td>
</tr>
<tr>
<td>Does not require complex delivery mechanisms.</td>
<td>No improvement of building skills.</td>
<td>Ensure that housing labor and materials markets are functioning properly.</td>
</tr>
<tr>
<td>Assistance can be adjusted to household’s income, family size, livelihoods, socio-cultural requirements, etc.</td>
<td>No opportunity to introduce new building technologies.</td>
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<tr>
<td>Does not discourage repair of houses or use of salvaged and local building materials.</td>
<td>Vulnerable people may be unable to handle repair and reconstruction without assistance.</td>
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<tr>
<td>Best when local building capacity and financial support are adequate.</td>
<td>Financial assistance may be used to meet other requirements while houses remain unrepaiared.</td>
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<tr>
<td>Families can employ cash according to their priorities.</td>
<td>Risks of negative publicity if households use funds for questionable purposes.</td>
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<td>May increase risk of corruption.</td>
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**Owner-Driven Reconstruction (ODR)**

In an ODR program, people who lost their shelter are given some combination of cash, vouchers, and in-kind and technical assistance (TA) to repair or rebuild their houses. They may undertake the construction or repair work by themselves, by employing family labor, by employing a local contractor or local laborers, or by using some combination of these options. ODR is similar to the “aided self-help approach” that has been used extensively to provide housing assistance to the urban poor, particularly in Latin America.²

ODR is the most empowering and dignified approach for households, and it should be used whenever the conditions are right for it. The approach is viable for both house and apartment owners (in the latter case, the condominium association or cooperative society would manage construction), as well as for informal settlers, once their tenure is secured. In fact, the term “owner” in ODR refers as much to the ownership of the building process as to the ownership of the house. A common misunderstanding about ODR is that the owners will build their houses by themselves. Recent examples show that this is rarely the case because people tend to hire local contractors or laborers for at least part of the work. Thus, the key difference between this approach and agency-driven approaches is that contractors and paid laborers are accountable to the homeowner rather than to an external agency that may not be able to provide the intensive supervision and control that homeowners often can.

However, the risks of ODR need to be understood and addressed. ODR requires good oversight and governance, that is, a government capable of establishing and enforcing standards, and some agency (governmental or nongovernmental) to ensure the quality of construction. Where engineered building technologies are being used, or multifamily housing is being rebuilt, using ODR is more challenging, but not impossible. The oversight from supporting agencies or government will need to

be more technical, and experienced contractors must be hired. Success lies in establishing a support system for homeowners appropriate to the local context, which may include:

- Training of tradespeople and homeowners
- Technical assistance and construction supervision and inspection
- Updating and enforcement of building codes and construction guidelines
- Mechanisms to regulate prices and facilitate access to building materials
- A system for providing financial assistance in installments as construction progresses

Experiences with ODR

- Formally adopted by the state government of Gujarat as its official reconstruction policy following the 2001 earthquake in Gujarat, India. Independent evaluations proved it produced high levels of satisfaction.\(^3\)
- Used by the World Bank after the 2004 Indian Ocean tsunami in Thailand and Sri Lanka and after the 2005 North Pakistan earthquake. The Bank funded reconstruction and therefore was in a position to influence government reconstruction policy. In these cases, both official Bank documents and evaluations carried out by other agencies that pursued this approach confirm that this was the most successful housing assistance strategy.\(^4\) Also see the case study on ODR in the North Pakistan earthquake reconstruction, below, and others in the case studies section of this chapter.

### Case Study: 2005 North Pakistan Earthquake, Pakistan

**Flexibility in ODR Housing Reconstruction and Retrofitting**

Following the North Pakistan Earthquake of 2005, the Pakistani government promoted ODR to rebuild some 400,000 houses. Under the lead of the Earthquake Reconstruction and Rehabilitation Authority (ERRA), a multitude of international NGOs joined this program. Homeowners were responsible for the reconstruction of their own houses, with technical assistance and financial support disbursed in tranches. Insufficient capacity in the field can slow down the pace of construction and increase the likelihood of substandard construction work. To prevent this, ERRA facilitated the mobilization of decentralized teams who could provide technical updates and on-site training to the scattered beneficiaries. ERRA also used field observations and field testing to decide whether to allow different construction techniques and developed retrofitting methods to

<table>
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<tr>
<th>Advantages</th>
<th>Disadvantages and risks</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilizes households to take an active role in rebuilding, which speeds recovery from psychological trauma.</td>
<td>Without good standards and oversight, quality of construction may be poor, and pre-disaster vulnerabilities can be reproduced. Conversely, if building codes are too rigid and biased toward alien housing technologies, people can have trouble complying with requirements, even with oversight.</td>
<td>Establish a support system for homeowners that is responsive to local requirements. Ensure that assistance is equitable and sufficient to satisfy minimum housing standards. Establish a delivery mechanism for financial assistance that is easy to understand and access. Ensure building codes are based on local building technologies and materials. Ensure adequate training for trades people and construction supervisors. Acknowledge housing rights and accommodate special needs of tenants, squatters, and the homeless. Adjust the approach to reach geographically distant regions and socioeconomically disadvantaged people. Provide special attention and support to vulnerable groups (orphans, widows, the elderly, and the very poor). Adopt measures to prevent inflation and ensure access to quality construction materials. Consider involving nongovernmental organizations (NGOs) as part of the enabling system.</td>
</tr>
<tr>
<td>Assistance can be adjusted to the needs of the household related to income, family size, livelihoods, socio-cultural requirements, etc.</td>
<td>Helps preserve community’s cultural identity by ensuring continuity in local building tradition and architectural style.</td>
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<tr>
<td>Consistent with normal incremental housing construction practices.</td>
<td>Tends to involve local building industry, thereby contributing to restoration of local economy and livelihoods.</td>
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<tr>
<td>Encourages repair of houses and use of salvaged and local building materials.</td>
<td>Helps preserve community’s cultural identity by ensuring continuity in local building tradition and architectural style.</td>
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<tr>
<td>Allows people to “top up” housing assistance with their own savings and build a house reflecting their specific needs and aspirations.</td>
<td>Is less subject to disruptions caused by unstable political situation (for example, eastern provinces of Sri Lanka).</td>
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<td>Is viable for dispersed and remote settlements (for example, Pakistan, Gujarat).</td>
<td>Suitable for contractor-built multifamily and high-rise building reconstruction; however, skilled technical oversight is required.</td>
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in increase or maintain the seismic resistance of diverse housing styles. The approval of the local timber-frame construction style Dhajji was vital for the success of the reconstruction effort; statistical analysis indicates that, as compared to concrete block masonry, Dhajji houses are less costly and can be made acceptably seismic-resistant. Also, Dhajji construction techniques are easier for homeowners to understand, utilize, and adapt to local contexts, preferences, and resources. Three years after the earthquake, almost 300,000 seismic-resistant houses were nearing completion. An overarching factor in this success was the constructive way in which homeowners and those managing the implementation of the program were able to interact as the program was carried out.

Source: A. van Leerum, 2009, "Implementing Seismic Resistant Construction in Post-Disaster Settings: Insights from Owner-Driven Reconstruction in Pakistan" (MSc thesis, Eindhoven University of Technology). The opinions expressed are those of the author and do not necessarily reflect those of the involved organizations.

Community-Driven Reconstruction (CDR)

CDR entails varying degrees of organized community involvement in the project cycle, generally complemented by the assistance of an agency. The degree of control over reconstruction by the community in CDR projects varies between agencies and from project to project. The agency may take the lead, suggesting housing designs, technologies, and/or materials, and delivering construction inputs and training. The agency may also employ skilled and unskilled laborers from the community or facilitate the formation of construction committees. At the other extreme, the community may manage most of the reconstruction process and receive only the support of facilitators ("collective ODR"). In summary, CDR may involve one or more of the following roles for the community:

- Organization and planning of the entire reconstruction process, including housing and infrastructure
- Decisions regarding housing design and building materials
- Production of building materials such as bricks
- Distribution of building materials or other forms of housing assistance (e.g., cash and vouchers)
- Hands-on reconstruction
- Oversight of builders

Experiences with CDR

- Adopted by several national NGOs following the 2001 Gujarat, India, earthquake. The level of satisfaction was relatively high, but lower than for ODR houses.
- Used successfully as collective ODR following the 2006 Java earthquake in Indonesia. See the case study entitled Organizing Community-Based Resettlement and Reconstruction, in Chapter 12, Community Organizing and Participation.
- Adopted by the United Nations Centre for Human Settlements (UN-HABITAT), KIW, and Urban Poor Linkage Indonesia (UPLINK) in Aceh, Indonesia, following the 2004 Indian Ocean tsunami. Each of these agencies used a somewhat different interpretation of the approach. UPLINK gave people more choice in house designs, but community-based construction committees were given control over the purchase and distribution of building materials and over the mobilization of reconstruction labor. (In some cases, local contractors gained control of these committees.) KIW gave building materials and financial assistance directly to owners, but provided little choice over materials and designs.
- Used by the city of Ocotal, Nicaragua, to relocate and rehouse residents of displaced neighborhoods and highly vulnerable sites following Hurricane Mitch in 1998. Housing designs and building materials were proposed by a local architect, but receipt of a house was contingent on participation in construction of at least one family member. (See case study, below.)
Agency-Driven Reconstruction

Challenges

Sources:

Successful CDR Project Built Social Capital

Case Study: 1998 Hurricane Mitch, Nicaragua

After Hurricane Mitch struck the town of Ocotal, Nicaragua, damaging 1,164 houses and destroying 328, the mayor initiated a CDR project for resettling the affected population as well as for households located in high-risk areas. The guiding principle was to prevent future disasters by protecting the people, while improving the social cohesion of the community. The social dynamics of the community were carefully analyzed and community participation was promoted. The reconstruction process was explained to the citizens in community meetings, and the damage and loss assessment was conducted to reflect the community’s own priorities. Further, the new building site underwent an extensive planning process during which the proximity of the site to the future residents’ income sources was analyzed, as were possibilities for the future growth of the community, an important consideration when rapid population growth is expected.

Culturally and environmentally appropriate house designs, including improved traditional building materials and techniques, were proposed by a local architect and presented to the community. Future residents discussed the design and could request modifications, which were incorporated when technically feasible. Access to a house was contingent on full participation in the construction by at least one family member. Because Ocotal constructed its own adobe factory, it created much-needed employment in an effort to reduce out-migration from the town. Beneficiaries were trained in hazard-resistant construction, including the modification of traditional adobe building practices. Participation in the joint construction work on the building site made it possible for residents-to-be to establish initial contacts with their new neighbors. People’s pride and self-esteem increased as the project progressed, social cohesion was fostered, and a positive neighborhood identity was created. The Ocotal reconstructions project successfully incorporated prevention and built social capital, which has contributed to the sustainability of the project. In all, approximately 300 new homes have been built to date.


Agency-Driven Reconstruction in-Situ (ADRIS)

In ADRIS, a governmental or nongovernmental agency hires one or more contractors to design and build the houses. Design, materials, and expertise are likely to be imported from outside the community. The community may or may not be consulted on certain aspects of the project, such as house designs. House owners may be asked to take over some building tasks, such as curing concrete. Whereas house owners may also hire contractors within the framework of ODR, the principal contractor is accountable to the agency and may be contracted through formal tendering procedures. A special case of ADRIS is when a public agency reconstructs government-owned housing, on public property.
Because ADRIS takes place on the owners’ own land, it gives the homeowner some degree of control over quality and sometimes the opportunity to participate in specific tasks. During construction, owners may be able to make suggestions to or modify the design. ADRIS eliminates the hurdle of land acquisition and generally allows the household to know where its house will be located. However, if housing designs are standardized or different from local designs, it may be difficult to fit the houses into pre-disaster settlement layouts or to modify them later. ADRIS, therefore, often results in similar or even worse outcomes than those of ADRRS, especially in the case of large-scale single-family reconstruction.

Experiences with ADRIS

- Many international NGOs and private companies “adopted” villages and used ADRIS to build houses after the 2001 Gujarat, India, earthquake, even though government adopted an ODR policy. These projects often became a mix of ADRIS and ADRRS in adjacent sites where the housing designs did not fit existing sites and individual households, humanitarian agencies, or local governments bought additional land for new construction. In some cases, contractors did not respect the heritage sites and spatial organization, and caused irreversible damage to historical villages.
- Many private voluntary organizations adopted ADRIS in Tamil Nadu, India, following the 2004 Indian Ocean tsunami. However, they required that the land be cleared of houses and vegetation before starting construction. As a result, hundreds of pre-tsunami houses that were culturally and climatically appropriate and easily repairable were demolished, and thousands of trees were felled, which negatively affected people’s livelihoods and well-being.5

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<tr>
<th>Advantages</th>
<th>Disadvantages and risks</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Communities are not displaced.</td>
<td>A contractor's construction modes, designs, and settlement layouts are often not compatible with existing sites.</td>
<td>Avoid ADRIS if local building capacity is available.</td>
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<tr>
<td>People can be effectively involved in construction and monitoring.</td>
<td>Remaining built and natural environments may be considered an obstacle to reconstruction, leading to unnecessary house demolition and tree removal, causing high social and environmental impacts and conflicts.</td>
<td>If ADRIS is unavoidable, ensure community participation in choices regarding housing design, site layout, building materials, and construction.</td>
</tr>
<tr>
<td>New building technologies can be introduced.</td>
<td>Exogenous building technologies may be used that have negative environmental impacts and do not meet local requirements.</td>
<td>Ensure equitable distribution of project benefits with transparent allocation criteria based on social assessments, and monitor their application.</td>
</tr>
<tr>
<td>No land acquisition is required.</td>
<td>Community participation may be more difficult to incorporate or may be limited to community leaders, resulting in disproportionate benefits for elites.</td>
<td>Protect the heritage value of pre-disaster environment, both built and natural, including buildings and trees that survived the disaster.</td>
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<td>Construction quality is often poor due to inexperience of agency with oversight of housing construction, among other reasons.</td>
<td>Require contractors to use local building materials and designs.</td>
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<td>Contractors may encourage communities to demand additional benefits from government.</td>
<td>Hire a professional project manager or “clerk of the works” from the construction industry to supervise construction.</td>
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<td>Corruption and exploitation by contractors.</td>
<td>Establish social audit mechanisms to ensure local accountability. See Chapter 18, Monitoring and Evaluation, Annex 2, for a social audit methodology.</td>
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Agency-Driven Reconstruction in Relocated Site (ADRRS)

When using ADRRS, a governmental or nongovernmental agency contracts the construction of houses on a new site, generally with little or no involvement by the community or homeowners. The community, government, or agency supporting the reconstruction may purchase the land for the new settlement. Upon completion, the houses may be allotted through a lottery or using criteria defined by the community or the agency, or both. ADRRS, often justified as a risk-mitigation measure, may

be advisable when communities are being relocated. And agencies may favor ADRRS for the ease of constructing on a clear site without tenancy issues or other complications. ADRRS is used by public agencies to reconstruct government-owned housing in a relocated site, generally public land. However, for single-family homes, ADRRS can be problematic. It can lead to the construction of costly, inappropriate housing of poor quality and settlement arrangements that do not meet the socio-cultural and livelihood requirements of the people, causing severe economic consequences and low occupancy rates. The argument that ADRRS results in higher construction quality is rarely valid, because of poor supervision or the lack of qualified contractors. Moreover, finding an appropriate site can be a major challenge; failing to do so is, in fact, one of the principal reasons for dissatisfaction with this approach. The complexities of a decision to relocate are discussed in Chapter 5, To Relocate or Not to Relocate.

Experiences with ADRRS
- International NGOs and national private companies opted for ADRRS after the 2001 Gujarat, India, earthquake because of perceived organizational advantages and higher visibility, including naming rights to new settlements. Local elites were sometimes given incentives to sell this approach to local officials. By accepting these offers, people lost their access to government financial assistance. When they later found the designs, layouts, and construction quality to be subpar and refused to occupy these villages, they ended up having to liquidate their assets, such as land and livestock, so they could rebuild elsewhere. An independent study found that in villages that opted for ODR, housing conditions were considered better than before the earthquake and economic conditions unchanged, while in villages reconstructed with the ADRRS approach, a significant percentage of households reported high levels of indebtedness and worse economic conditions.
- ADRRS has had positive results in urban contexts. Two examples are the city of Nagapattinam in Tamil Nadu, India, and Banda Aceh, Indonesia, after the 2004 Indian Ocean tsunami. In Banda Aceh, a Korean voluntary organization acquired land in a middle-class neighborhood for an urban housing project. Although the houses were small, high occupant satisfaction was attributed to housing design, good location, access to public services, and the fact that livelihoods were not site-dependent. See the case studies later in this chapter.

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<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages and risks</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate where pre-disaster settlements are located on hazardous sites.</td>
<td>Difficulties and delays in finding appropriate land.</td>
<td>Only adopt ADRRS if ODR is not possible on safety grounds.</td>
</tr>
<tr>
<td>May be faster and more cost-effective.</td>
<td>Negative socioeconomic impacts and disruption of livelihoods from relocation may cause occupancy rates to remain low.</td>
<td>Avoid this approach in rural areas, anywhere people can manage house construction on their own, and where livelihoods are very site-specific.</td>
</tr>
<tr>
<td>May allow pre-disaster housing problems to be addressed (for example, shortages, vulnerability, and poor housing conditions).</td>
<td>Poor site selection may cause negative environmental impacts or re-create vulnerability of original location.</td>
<td>Carefully assess relocation effects on livelihoods and provide mitigation measures.</td>
</tr>
<tr>
<td>More appropriate for dense urban settlements, rental housing, and complex building technologies (multistory construction).</td>
<td>Construction quality is often poor.</td>
<td>Identify beneficiaries and allot houses during the planning stage.</td>
</tr>
<tr>
<td>Can contribute to heritage conservation by relocating from sensitive sites.</td>
<td>Loss of local building culture and capacity.</td>
<td>Ensure community participation throughout the project cycle, site selection, settlement planning, and housing design.</td>
</tr>
<tr>
<td>Can address housing needs of various categories of the population simultaneously, depending on design of the settlement.</td>
<td>Disruption of access to common property and to natural and cultural heritage sites.</td>
<td>Establish social audit mechanisms to ensure local accountability. See Chapter 18, Monitoring and Evaluation, Annex 2, for a social audit methodology.</td>
</tr>
<tr>
<td>Settlement layout, housing designs, and building technologies can be alien to local communities and culturally inappropriate, particularly in rural areas.</td>
<td>Repairs and extensions to houses built with exogenous building technologies may be unaffordable.</td>
<td>Ensure quality control through an independent third-party audit. See Chapter 19, Mitigating the Risk of Corruption, Annex 2, for instructions on conducting a construction audit.</td>
</tr>
<tr>
<td>Contractors may encourage communities to demand additional benefits from government.</td>
<td>Lack of community participation or oversight may result in poor targeting, unequal distribution of houses, and elite capture.</td>
<td>Take into consideration socioeconomic and gender-specific requirements.</td>
</tr>
</tbody>
</table>

Case Study: 2003 Bam Earthquake, Iran
Shift from ADRRS to ODR during Bam Earthquake Reconstruction

When the Housing Foundation of the Islamic Revolution (HF)-United Nations Development Programme (UNDP) joint housing reconstruction project started following the 2003 Bam earthquake, the government of Iran and the HF (the executing agency for the reconstruction) had not fully defined the reconstruction approach. For the first year of the project, the HF hired contractors to build housing units for the program’s beneficiaries (129 female-headed households [FHHs]). But the poor performance and slow delivery by the contractors and their numerous claims for cost increases led the HF to shift after the first year to ODR with technical assistance.

The ODR approach followed several organized steps, namely, (1) submission of ownership documents or other verifiable proof of ownership in 1 of the 14 regional offices of the HF; (2) request for rubble removal from the property; (3) request for a demolition or leveling permit from the Bam Municipality; (4) delivery of a letter to the landowner by the HF office that introduced the landowner to the licensed consultancy firms that had established branches in the HF offices; (5) selection of a housing model from among those demonstrated by the private developers, contractors, UNDP, and international NGOs at the HF Technical and Engineering Site; (6) review and revision of the selected design with the consultancy firm until agreement on a final design; (7) receipt from the municipality of guidelines for engaging a contractor; (8) preparation of documentation for loans and grants from banks; (9) selection, negotiation, and contracting of a licensed contractor; and (10) commencement of construction. The beneficiaries received their first loan installment after the house foundation was complete. The shift to ODR resulted in more rapid reconstruction and higher satisfaction for the FHHs with the quality of the work.


Comparison of Reconstruction Approaches

Reconstruction approaches can be compared according to the degree of household control, the form of assistance, the role of the actors, and where the reconstruction takes place. The factors can be combined in many ways. The following table compares the five approaches discussed in this chapter:

<table>
<thead>
<tr>
<th>Reconstruction approach</th>
<th>Degree of household control</th>
<th>Form of assistance</th>
<th>Role of actors</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Financial</td>
<td>Community</td>
<td>In-situ</td>
</tr>
<tr>
<td>Cash Approach</td>
<td>Very high</td>
<td>Cash only</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Owner-Driven Reconstruction</td>
<td>High</td>
<td>Conditional cash transfer to household</td>
<td>TA/Training of household</td>
<td>Project oversight and training</td>
</tr>
<tr>
<td>Community-Driven Reconstruction</td>
<td>Medium to high</td>
<td>Transfer to household or community</td>
<td>TA/Training of community and household</td>
<td>Project organization and oversight</td>
</tr>
<tr>
<td>Agency-Driven Reconstruction in-Situ</td>
<td>Low to medium</td>
<td>Funds handled by agency</td>
<td>Limited or none</td>
<td>Management of project</td>
</tr>
<tr>
<td>Agency-Driven Reconstruction in Relocated Site</td>
<td>Low</td>
<td>Funds handled by agency</td>
<td>Limited or none</td>
<td>Management of project</td>
</tr>
</tbody>
</table>

Determining which reconstruction approach is preferable for an affected population—or even a subset of the population—is not a straightforward process. The disaster situation, and the conditions and preferences of households make each situation unique. This determination is also affected by the tenancy status of the household before the disaster and the desired tenancy status after reconstruction.

For access to additional resources and information on this topic, please visit the handbook Web site at www.housingreconstruction.org.
However, some approaches may be more suitable to certain groups than others. The following table shows what may be the most suitable solutions for specific groups. It points out the importance of addressing the reconstruction requirements of owners who are landlords, since renters—a large proportion of the population in some countries, especially in urban areas—will be dependent on reconstruction by landlords. It is unlikely that a group of apartment dwellers (even if they were condominium or cooperative owners) would band together to reconstruct their units, particularly if reconstruction entailed relocation. However, this option is included here. More likely, they would liquidate their holdings and relocate elsewhere. The case study on the Gujarat earthquake, below, compares satisfaction levels of owner-occupiers with different reconstruction methods.

<table>
<thead>
<tr>
<th>Tenancy categories of affected population</th>
<th>Suitable reconstruction approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. House owner-occupant or house landlord</td>
<td>Any approach.</td>
</tr>
<tr>
<td>2. House tenant</td>
<td>If tenant can become a house owner-occupant during reconstruction, see #1. If tenant becomes an apartment owner-occupant, see #3. Otherwise house tenants are dependent on landlords to rebuild.</td>
</tr>
<tr>
<td>3. Apartment owner-occupant or apartment building landlord</td>
<td>Cash or ODR. CDR if owners as a group can function as a “community.” Reconstruction of multi-family, engineered buildings will always involve contractors, but owners may not require help of agency.</td>
</tr>
<tr>
<td>4. Apartment tenant</td>
<td>If tenant can become a house owner-occupant during reconstruction, see #1. If tenant becomes apartment owner-occupant, see #3. Otherwise, apartment tenants are dependent on landlords to rebuild.</td>
</tr>
<tr>
<td>5. Land tenant (house owner)</td>
<td>With secure tenure, same as #1, house owner-occupant. Without secure tenure, same as squatter.</td>
</tr>
<tr>
<td>6. Occupant with no legal status (squatter)</td>
<td>If squatter can become a house owner-occupant during reconstruction, see #1. If squatter becomes an apartment owner-occupant, see #3. Otherwise, squatters are dependent on landlords to rebuild, or they remain without legal status.</td>
</tr>
</tbody>
</table>

Risks and Challenges

- Underestimating an affected community’s capacity to rebuild its houses and, hence, opting for reconstruction by contractors.
- Allowing those who can provide reconstruction funding to impose the reconstruction scheme.
- Building houses that people refuse to occupy for reasons of location, materials, design, or loss of livelihood.
- Not providing households participating in ODR projects with adequate assistance, facilitation, and supervision, resulting in poor construction quality, price inflation for materials, and other problems.
- Failing to take advantage of reconstruction as an opportunity to reduce risk and to strengthen local building practices and construction capacities.
- Inadequate oversight of private construction companies, which results in higher costs or inferior quality of construction.
- Designing and building houses that do not meet the communities’ cultural and individual requirements because of a lack of community participation in reconstruction planning.
- Local elites who hijack the project benefits because eligibility criteria and assistance schemes were poorly designed or not monitored during implementation.
- Pressure to overinvest in housing that leaves little or no funding for on-site investments such as infrastructure and restoration of natural habitat.
- Failing to provide sufficient technical assistance and facilitation to ensure that poorer households participating in ODR schemes reach construction milestones and obtain access to subsequent funding disbursements.
- In urban areas, adopting ODR without strengthening institutional capacity for land use planning, regulation, and building inspection, which can result in increased vulnerability.
- Neglecting the needs of tenant categories other than homeowners, e.g. owners of multiple family housing, tenants, landlords, and squatters.
### Recommendations

1. When reconstruction is simple and mainly entails repair of damaged housing that is otherwise adequate, adopt CA; otherwise, whenever possible, adopt ODR.
2. Use CDR when community life and the local economy is disrupted by the disaster or relocation is required, or both.
3. Avoid ADRS in rural areas and in places where the built environment and natural habitat are significantly intact.
4. If ADRS is absolutely necessary, government should require community participation and establish simultaneous audit and oversight mechanisms.
5. Help communities rebuild their houses with facilitation and other appropriate enabling mechanisms identified through a social assessment that focuses on vulnerable households.
6. Ensure that reconstruction agencies take into consideration people’s different housing needs, vulnerabilities, livelihoods, and family size in selecting reconstruction approaches and that socioeconomic factors and gender-related requirements are addressed.
7. Under every approach, ensure that construction methods embody good planning, risk reduction, and environmental principles.
8. Require community participation in all aspects of the process, even when outside agencies or the private sector are in the lead.

### Case Studies

#### 1999 Eje Cafetero Earthquake, Armenia, Colombia

**Decentralization of the Rural Reconstruction Process using ODR**

When an earthquake struck the coffee-growing region of Colombia in 1999, national authorities worried about the repercussions of the disaster on the coffee exports-based regional economy. The President of Colombia created FOREC, a national fund that was put in charge of managing the overall reconstruction program. FOREC, in turn, decentralized the reconstruction process by distributing responsibility among 32 NGOs, putting each one in charge of a small town or a sector of an affected city. Rural reconstruction was assigned to the Coffee Growers’ Organizations (CGOs), a network of local, regional, and national committees represented internationally by the Coffee Growers’ Federation. However, the mission of a CGO was promoting coffee production and exports, not building houses or infrastructure. Lacking the means to implement a housing program, the CGOs opted for a user- or owner-driven approach in which beneficiaries were give responsibility for designing, planning, procuring, and building their own projects. FORECAFE, a rural reconstruction fund created by the CGOs, was charged with controlling the quality of construction on individual projects and managing progress payments, which were disbursed based on approval of the use of the prior payments. More than 14,000 individual housing infrastructure, income-generation, and community services projects were completed in less than 18 months, thanks to an effective system of coordination of information, financial control, and quality management. This post-disaster, user-driven reconstruction experience (one of the first in Latin America) demonstrated the benefits of transferring responsibility over design, planning, and management of reconstruction directly to the individual beneficiaries of that reconstruction.


#### 2005 Jammu and Kashmir Earthquake, India

**Quality Transitional Shelter Built by ODR Gets Affected Population through the Winter**

In October 2005, a massive earthquake hit the Jammu and Kashmir region of India, killing more than 1,000 people and injuring 6,300. The impact on housing in some communities was catastrophic. In Tangdhar region, for example, 5,393 of 6,300 houses collapsed and 266 were partially damaged. In addition, winter was fast approaching, threatening to block access roads to the affected area. In contrast to many post-disaster situations where temporary shelters are a makeshift solution for a few months, sometimes built with inappropriate materials, the Jammu and Kashmir government decided to provide robust interim shelters. A reconstruction policy was needed that reflected local needs, priorities, and climatic conditions, including a proposal for the interim shelter construction approach. The Jammu and Kashmir government analyzed such options as (1) government construction of houses, (2) contracting NGOs to construct housing, and (3) facilitating construction by households, as was done in Bhuj, India, after an earthquake hit that city. The option chosen was ODR, and enabling mechanisms were established, including providing cash assistance of Rs 30,000 (US$677) for those

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*CHAPTER 6: RECONSTRUCTION APPROACHES*
whose houses had fully collapsed (enough for a 200 sq. ft. shelter) and sending engineers to survey villages and to help communities with technical issues. The transitional shelter design chosen could be built in two days. Although access to construction material was facilitated, people were encouraged to use lumber from their old houses to prevent shortages in the spring when permanent reconstruction work would begin. To ensure completion of shelter construction before winter hit, an incentive of Rs 5,000 (US$112) was given to the families that finished their sheds before the end of November while respecting safety norms. The reconstruction policy and technical advice were communicated to communities using flyers in Urdu and English with easy-to-understand drawings. In the end, 15,000 shelters—90 percent of the total—were completed by the end of November. A crisis was averted, thanks to a combination of a practical transitional shelter strategy, a clear message, good incentives, and strong support by the state for ODR.


2001 Gujarat Earthquake, India

Citizens’ Satisfaction with Different Reconstruction Approaches

In 2004, an independent household survey compared citizens’ satisfaction with different reconstruction approaches following the 2001 Gujarat, India, earthquake. The highest satisfaction was achieved with ODR with financial assistance and technical assistance from government, complemented by additional material assistance from local NGOs. All families whose houses were built using this model reported that their housing situation was better than before the earthquake. A second approach, government-supported ODR without NGO assistance, was almost as popular, with 93.3 percent of households reporting being fully satisfied. Relatively high levels of overall satisfaction (90.8 percent) were also reported under a third approach: local NGOs using CDR. Satisfaction decreased when houses were built by contractors. Only 71.8 percent of the people reported being satisfied with contractor-built houses built in-situ (equivalent to ADRIS).

Contractors’ profit imperative was held responsible for low construction quality. Only 22.8 percent of the people who received contractor-built houses in relocated sites (equivalent to ADRRS) reported being satisfied and only 3.5 percent considered the quality adequate. People complained about lack of participation, discrimination in favor of local elites, and disruption of family networks. Many people refused to move to new villages, and houses remained unoccupied. The study also showed that reconstruction by contractors was more costly and required more time than ODR.

Resources


