A NOTE TO THE PROJECT MANAGER

Background

Safer Homes, Stronger Communities: A Handbook for Reconstructing after Disasters was developed to assist project managers and policy makers engaged in large-scale post-disaster reconstruction programs make decisions about how to reconstruct housing and communities after natural disasters.

As the handbook demonstrates, post-disaster reconstruction begins with a series of decisions that must be made almost immediately. Despite their urgency, these decisions—and the manner in which they are implemented—will have long-term impacts that will change the lives of those affected by the disaster for years to come.

As a project manager or task manager, you will be responsible for implementing government policy decisions and for making many operational decisions on the ground. The handbook provides information on the options that should be considered in various aspects of reconstruction and insight into what has worked elsewhere. It does not tell you exactly what to do, but it should improve the likelihood of good outcomes from the work that is done.

The handbook's flow chart (shown after the table of contents and in miniature below) graphically represents the entire reconstruction process.

Content of the Handbook by Chapter

The handbook begins with a statement of guiding principles (shown in the adjacent box). These guiding principles encapsulate the handbook's advice and reflect some of the key concepts behind it, including participation, collaboration, sustainability, and risk reduction.

The handbook is divided into four parts. Below is an overview of some of the key concepts and guidance presented in each part.

Part 1, Reconstruction Tasks and How to Undertake Them, provides both policy and practical advice on critical reconstruction issues. Part 1 contains three sections that correspond to the principal stages of reconstruction: (1) assessment and policy making, (2) planning, and (3) implementation. Below are summaries of the chapters contained in each of these three sections.

Section 1. Assessing Impact and Defining Reconstruction Policy
In ***Chapter 1, Early Recovery: The Context for Housing and Community Reconstruction***, the handbook offers an overview of the institutional landscape project managers are likely to encounter in a post-disaster setting beginning with the disaster event, when humanitarian agencies are likely to be most prevalent, and of the sequence of events that are likely to unfold. It also describes the roles that affected populations and various agencies take on in the post-disaster environment. This chapter also presents the arguments in favor of and against providing transitional shelter. A number of common gaps or bottlenecks in the reconstruction process, including the funding gap, the planning gap, the implementation gap, and the participation gap, are described here. This chapter sets the tone for the rest of the handbook by arguing for a reconstruction approach that puts affected communities in the center, helping to set policy and organizing the entire reconstruction process.

> ### Handbook Guiding Principles
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> 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 minimized.
> 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.

Chapter 2, Assessing Damage and Setting Reconstruction Policy, discusses the assessment process and explains some of the common types of assessments. It focuses on three types of assessments: (1) multisectoral assessments (such as the damage and loss assessment); (2) housing sector assessments, which can be used to diagnose the land administration and affordable housing policy and institutional framework in the country and to identify capacity issues that may arise in reconstruction; and (3) local housing assessments, including housing damage assessments. Housing damage assessments are the door-to-door assessments that are often used to allocate housing assistance. This chapter shows how assessment results are used to define reconstruction policy and discusses the political economy of the reconstruction process. An outline for a reconstruction policy is provided, as are two good examples of reconstruction policies: those used in the aftermath of (1) the 2001 earthquake in Gujarat, India; and (2) the 2004 Indian Ocean tsunami in Tamil Nadu, India. The annexes in this chapter provide detailed methodologies on how to conduct (1) a housing sector assessment and (2) a housing condition assessment. The proposed housing condition assessment methodology recommends a number of activities to also assess the overall condition of the neighborhood, including the "village transect." This assessment should be conducted with the participation of affected communities.

Chapter 3, Communication in Post-Disaster Reconstruction, provides guidelines on the development of a comprehensive post-disaster communications strategy. This chapter encourages the use of continuous, two-way communications following a disaster to constantly monitor the relevance and quality of the outcomes of the reconstruction program. The communications strategy that was implemented following the 2005 North Pakistan earthquake is used as an example throughout this chapter, and case studies are presented on various aspects of this experience, including the importance of assessing the cultural context when designing communications activities and the use of beneficiary feedback as a monitoring and evaluation tool. Two annexes are included in this chapter: (1) a methodology for conducting a communications-based assessment and (2) a table that summarizes the cultural factors that affect communication.

Project managers will find information in ***Chapter 4, Who Gets a House? The Social Dimension of Housing Reconstruction***, that will help ensure that housing assistance reaches its intended beneficiaries and has the desired social impact on the ground. This chapter presents a table of all the tenancy categories that might be assisted by a housing assistance program and includes matrices of criteria that can be used to design a housing assistance scheme. These matrices address the following questions: Who is entitled? What form of assistance are they entitled to? How much assistance should they receive? Each case study explains the logic of a different approach to providing reconstruction assistance. Annexes to this chapter cover (1) considerations for designing a social protection system for natural disasters and (2) a detailed methodology for conducting a social assessment of a disaster-affected community.

Chapter 5, To Relocate or Not to Relocate, is intended to guide project managers to minimize instances of relocation and to minimize the scope and impact when relocation is absolutely necessary. Relocation is frequently used as a risk reduction strategy even when the risks are not site-specific, because a rigorous disaster risk assessment is not conducted. This chapter should be read together with the Disaster Risk Management in Reconstruction chapter in Part 4, Technical References, which explains how a disaster risk assessment should be conducted and how to compare risk reduction options. Relocation is not the same as "resettlement" as defined in the policies of many international organizations, including the World Bank, and this chapter explains the difference in these concepts, the different types of displacement, and the implications for project design, such as the ways in which assistance may be provided. At the same time, an argument is made in favor of a relocation approach that carefully identifies both social and economic impacts for households and attempts to mitigate them, as provided in resettlement policies. Numerous case studies demonstrate the impacts of well- and poorly planned relocation, and the annex provides a systematic planning procedure for a resettlement project based on the International Finance Corporation resettlement policy.

Chapter 6, Reconstruction Approaches, presents a typology and a comparison of six of the most common approaches to housing reconstruction, ranging from full owner-driven (or owner-managed) to full agency-driven approaches. It explains the advantages and disadvantages of each one in particular situations and provides case studies for each of the approaches. The same tenancy

categories are considered in this chapter as in the discussion of housing assistance in Chapter 4. It is explained that different circumstances make one or another reconstruction approach preferable. For instance, an owner-driven approach is probably infeasible for a high-rise urban apartment building, even if the residents are owners of the units. One of the approaches discussed entails reconstruction in a relocated site (agency-driven reconstruction in relocated site), and therefore has most of the same disadvantages as relocation in general, as discussed in Chapter 5.

Section 2. Planning Reconstruction
The section on planning reconstruction begins with ***Chapter 7, Land Use and Physical Planning***, which describes why planning of both sites and local land use is important, even in the post-disaster context. The content of a traditional land use plan is described, as are the challenges that arise in post-disaster planning, which include the lack of time, information, and capacity. This chapter explores the complex issues associated with the need for access to land and secure tenure in reconstruction and presents recommended solutions. Case studies include one that discusses the planning process Bhuj City, India, during which a number of residents were moved from the urban core to the periphery, and another that describes the innovative community-driven land adjudication process that took place in Aceh, Indonesia following the 2004 Indian Ocean tsunami. Annexes provide methodologies for planning (1) in situations where prior planning has taken place and institutions are experienced with planning methods and (2) in situations where this is not the case.

Chapter 8, Infrastructure and Services Delivery, explains both the short-term (lifeline) and longer-term (restoration/reconstruction) measures to restore infrastructure. It includes a chart that shows the most common types of damage from different types of infrastructure and the degree of severity of the damage. The coordination of housing and infrastructure reconstruction is difficult in a post-disaster environment, and some guidance is given on minimizing the risks of this situation. The chapter also presents an infrastructure planning methodology designed to improve the disaster resiliency of infrastructure during reconstruction or rehabilitation, and recommends that local service providers be strengthened both financially and in terms of their institutional capacity during the reconstruction process so that they are capable of maintaining the viability and the disaster resilience of rebuilt infrastructure over time. The case studies in this chapter explain various instances where infrastructure and housing reconstruction were not well coordinated and the practical solutions that were arrived at.
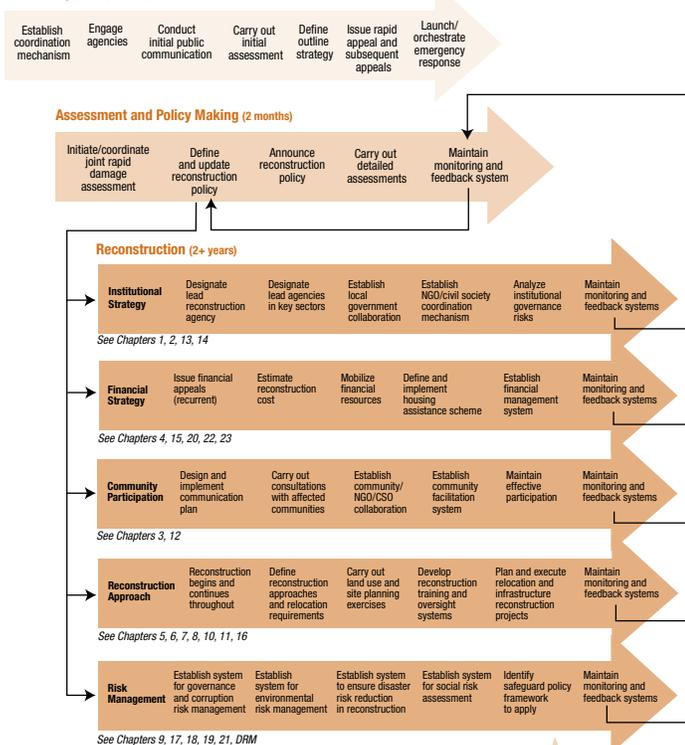
Chapter 9, Environmental Planning, alerts project managers to a range of environmental risks that may have been created by the disaster itself, or are likely to be encountered or created in the reconstruction process. It describes the types of environmental damage that are likely to result from different types of disasters and highlights common management problems, such as the handling of disaster debris and the planning of new settlements in a way to incorporate ecological considerations. A wide range of planning and analytical tools are described, including environmental risk assessment, eco- and hazard mapping, and environmental management plans, and links to resource information for these tools are provided. A summary on the risk of encountering asbestos in reconstruction and on the laws and regulations that govern its handling and transport is also included. Annexes provide instructions on (1) the development of a disaster debris management plan and (2) conducting an environmental impact assessment and preparing an environmental monitoring plan.

Chapter 10, Housing Design and Construction Technology, covers the range of critical issues associated with the design and construction of housing. Project managers will frequently need to decide, or help government decide, whether or to what extent construction methods will be upgraded in reconstruction, and this chapter is intended to provide support to those decisions. Issues covered include the choice of materials and building methods, the decision whether to repair/retrofit or rebuild, and the potential for incorporating universal design standards in reconstruction. Material is included on the use of vernacular construction methods, the controversies that surround this option, and the approaches that can be taken to improve their disaster resilience. To assist the project managers who may be deciding whether to support the use of local building methods in reconstruction, the chapter lists contact information for experts and institutions working to improve housing that uses local materials and vernacular building methods.

The Process of Response and Reconstruction

DISASTER EVENT

Initial Response (2 weeks)

| Establish coordination mechanism | Engage agencies | Conduct initial public communication | Carry out initial assessment | Define outline strategy | Issue rapid appeal and subsequent appeals | Launch/ orchestrate emergency response |

Assessment and Policy Making (2 months)

| Initiate/coordinate joint rapid damage assessment | Define and update reconstruction policy | Announce reconstruction policy | Carry out detailed assessments | Maintain monitoring and feedback system |

Reconstruction (2+ years)

| **Institutional Strategy** | Designate lead reconstruction agency | Designate lead agencies in key sectors | Establish local government collaboration | Establish NGO/civil society coordination mechanism | Analyze institutional governance risks | Maintain monitoring and feedback systems |

See Chapters 1, 2, 13, 14

| **Financial Strategy** | Issue financial appeals (recurrent) | Estimate reconstruction cost | Mobilize financial resources | Define and implement housing assistance scheme | Establish financial management system | Maintain monitoring and feedback systems |

See Chapters 4, 15, 20, 22, 23

| **Community Participation** | Design and implement communication plan | Carry out consultations with affected communities | Establish community/ NGO/CSO collaboration | Establish community facilitation system | Maintain effective participation | Maintain monitoring and feedback systems |

See Chapters 3, 12

| **Reconstruction Approach** | Reconstruction begins and continues throughout | Define reconstruction approaches and relocation requirements | Carry out land use and site planning exercises | Develop reconstruction training and oversight systems | Plan and execute relocation and infrastructure reconstruction projects | Maintain monitoring and feedback systems |

See Chapters 5, 6, 7, 8, 10, 11, 16

| **Risk Management** | Establish system for governance and corruption risk management | Establish system for environmental risk management | Establish system to ensure disaster risk reduction in reconstruction | Establish system for social risk assessment | Identify safeguard policy framework to apply | Maintain monitoring and feedback systems |

See Chapters 9, 17, 18, 19, 21, DRM

RECONSTRUCTION COMPLETE

See full size version on page viii.

Chapter 11, Cultural Heritage Conservation, discusses the social and economic benefits for communities associated with including cultural heritage conservation in post-disaster reconstruction. The chapter explains that cultural heritage can include not only traditional historic sites, but historic housing, cultural landscapes, and aesthetic assets, such as the architectural style of housing. The chapter explains how cultural assets conservation fits into larger community reconstruction projects and discusses their social and economic value. If no planning for the treatment of cultural assets in a disaster has taken place beforehand, there are still interventions communities can carry out, and the chapter explains what some of these are. However, the text explains that the effort to salvage cultural assets can cause as much damage as the disaster itself, so expert support is likely to be needed, and extensive resource material is provided to assist communities in finding help. In reconstruction, there are also efforts that should be made, such as adopting building codes that are compatible with cultural assets and vernacular building practices and providing financial incentives to encourage the conservation of built vernacular heritage that may be in private hands but that may have public value.

Section 3. Project Implementation
The project implementation section is of particular value to project managers, due to its practical, operational focus.

The handbook authors strongly favor a community-based approach to reconstruction. **Chapter 12, Community Organizing and Participation**, provides guidance on how to operationalize this concept and empower communities to lead their own reconstruction effort. It includes an overview of the ways in which communities can manage the reconstruction process or otherwise participate in reconstruction, beginning with conducting participatory assessments and participating in the definition of reconstruction policy. The chapter emphasizes that communities need support to lead reconstruction, and it provides in annexes (1) a methodology for analyzing the existing organization and leadership structure of the community and the assets it has to contribute to the reconstruction process (the Community Participation Profile) and (2) a detailed description of the community facilitation process that has been used very successfully in Indonesia, beginning with the post-Indian Ocean tsunami reconstruction.

Chapter 13, Institutional Options for Reconstruction Management, addresses options for organizing the overall reconstruction program and explains the situations in which they are most suitable and their advantages and drawbacks. While the typology of options presented is focused on the overall reconstruction effort, the concepts (creating a new entity versus using existing agencies) are relevant to the housing sector and may be useful in organizing the institutional response, even in a single community. The chapter explains that the entity managing reconstruction needs a mandate, a reconstruction policy, and a reconstruction plan in order to be effective. This chapter also recommends that, wherever possible, a central role be given to local government in reconstruction and emphasizes the need to ensure coordination between local officials and officials managing the overall reconstruction effort. The case studies are correlated with the institutional typology to show how the various structures have worked in actual disaster situations.

From **Chapter 14, International, National, and Local Partnerships in Reconstruction**, project managers can gain insight into the requirements for successfully working with the variety of nongovernmental entities that are often at work in the reconstruction environment. While Chapter 2 explains the roles of agencies on a chronological basis, beginning immediately after the disaster, this chapter describes in more operational terms how these agencies can organize and coordinate their interventions. The chapter also explains how nongovernmental and civil society organizations

get involved in reconstruction and provides guidelines on formalizing the relationship between central or local government and these organizations to help ensure that their actions contribute to larger development goals. One technique suggested is a registration system for nongovernmental and civil society organizations to improve transparency and accountability. Another is a process for formalizing the commitments of these organizations to help affected communities. Case studies provide a sampling of the numerous approaches nongovernmental organizations (NGOs) use to support the reconstruction effort.

While the parameters on the use of financial resources will be defined by policy makers, project managers can have an enormous influence on the effective use of these resources. *Chapter 15, Mobilizing Financial Resources and Other Reconstruction Assistance*, provides guidelines on qualifying recipients, delivering financial and other resources, and tracking their use at the project level. The chapter reviews the various forms of assistance that may be provided to affected households, including, cash, vouchers, in-kind materials, and even whole houses. It also explains normal mechanisms that households use to support reconstruction, including microfinance and migrant remittances, both of which can be interrupted after a disaster and may need support. The annexes to this chapter are intended to assist project managers with two common issues: (1) whether to import or procure and distribute construction materials and (2) how to establish a grievance redressal system. The chapter points out the importance of coordinating and monitoring reconstruction finance, whatever its source, even at the project level, where agencies can inadvertently compete or duplicate efforts, both of which create disincentives for households and reduce the effectiveness of the overall reconstruction effort.

Chapter 16, Training Requirements in Reconstruction, provides instructions on developing a large-scale training program aimed at improving the quality of housing condition assessments and of reconstruction, whether the builder is a contractor, a homeowner, or a combination of the two. The approach described in this chapter incorporates the initial and detailed assessment of housing condition, the design of training materials, and the use of model buildings as a training tool. One of the most important concerns in implementing training or facilitation at the project level in a large disaster is scaling up these interventions to ensure that the reconstruction effort is not delayed. The methodology described in this chapter depends on the training of trainers, which allows the scale of the training and assessment system to grow quickly. A second important concern is quality control. This system entails using the trainers as inspectors once the initial training period is over, as a means to ensure quality control.

Part 2, Monitoring and Information Management, helps project managers with advice about technology use in reconstruction, project monitoring, and involving affected communities in project oversight.

Chapter 17, Information and Communications Technology in Reconstruction, describes the wide variety of technologies being used in post-disaster assessment and monitoring. The chapter explains that these technologies, and their use in the post-disaster environment, are constantly changing, but that currently they are being used to improve coordination, communications, assessment, planning, and monitoring. However, successful information and communications technology use should conform to protocols that improve the interoperability of equipment and the standardization of data. Tools that are described as useful for post-disaster communications include Web 2.0, mobile telephones, and ham radios. Detailed annexes to the chapter explain (1) considerations for procuring satellite data and (2) the organization of geographic information systems and their use in reconstruction.

Using *Chapter 18, Monitoring and Evaluation*, project managers should be able to define the parameters of monitoring in reconstruction and decide whether and how to evaluate project impact. This chapter explains how monitoring and evaluation can be useful in reconstruction projects and the levels at which they may be conducted (household, project, program, and sector). The chapter advocates for the use of a mix of qualitative and quantitative data, including data collected in a participatory manner, and household survey data. Different agencies use different ways to organize and manage their monitoring data. The chapter contains explanations of two common systems. While impact evaluation of disaster projects is not common, a framework developed by the World Bank for the impact evaluation of slum upgrading projects is proposed as an important resource for

those interested in evaluating post-disaster housing and community projects, as explained in the chapter's first annex. This annex also includes a table of potential monitoring indicators for housing and community projects. Annex 2 explains participatory performance monitoring, and includes a methodology for a social audit and a summary of other participatory performance monitoring methods. A case study summarizes of the results of the evaluation of a reconstruction project financed by the World Bank following the 1999 earthquake in Armenia, Colombia.

There is a significant risk of corruption in reconstruction, and *Chapter 19, Mitigating the Risk of Corruption*, contains guidance and a range of tools on mitigating this risk. It recommends emerging practices to reduce corruption, such as codes of conduct in the public sector and integrity pacts between the public sector and the private sector and NGOs. Mechanisms of social control are explained, such as systems to encourage whistleblowers and to protect their identity, explaining that these mechanisms can be used on a situational basis or as part of a more comprehensive integrity system. Extensive information is provided on the use of audits, along with an explanation of the different types of audits and the auditing standards they apply. The three annexes in this chapter provide the means to improve transparency in various aspects of post-disaster reconstruction. They are (1) instructions for developing a project governance and accountability plan, as defined by the World Bank; (2) guidelines for conducting a corruption risk assessment, which focuses on organizational financial controls; and (3) instructions for ordering a construction audit at the project level.

Part 3, Information on World Bank Projects and Policies, provides an overview of how the World Bank assists governments after disasters and of the policies and procedures that apply in World Bank projects.

Chapter 20, World Bank Response to Crises and Emergencies, explains Operational Policy/Bank Procedure (OP/BP) 8.00, including the forms of Bank response, the features of Bank response, and the processing steps for emergency operations.

Chapter 21, Safeguard Policies for World Bank Reconstruction Projects, includes a summary of the Bank's safeguards policies and an explanation of their application in normal and emergency operations.

Chapter 22, Financial Management in World Bank Reconstruction Projects, explains the Bank project cycle and the policies and procedures for financial management in Bank operations. The chapter also includes a summary of the financial management issues that can arise in emergency operations and means to address them, and includes a discussion of the financial management aspects of OP/BP 8.0.

Chapter 23, Procurement in World Bank Reconstruction Projects, provides an overview of Bank procurement rules and a summary of how the Bank assesses country procurement capacity at the country and agency levels. The chapter also describes the procurement issues that can arise in emergency operations and proposes ways to address them.

Part 4, Technical References, includes technical information that may be useful in various aspects of reconstruction. This part of the handbook includes a glossary and the following sections.

Disaster Types and Impacts describes global disaster impacts and the impact of disasters on poverty and includes historical disaster data. It is included to provide a longer-term economic context for decisions and discussions within government about disaster-related risk reduction, policy, planning, and public investment.

Disaster Risk Management in Reconstruction includes a framework for evaluating both short- and long-term mitigation options for housing and infrastructure and a comparative risk assessment methodology. This information is especially relevant to all chapters dealing with reconstruction planning. This chapter also provides guidance on how to organize a community-based hazard mitigation planning process and includes case studies on how disaster risk management has been used in specific disaster-related situations.

Matrix of Disaster Project Features is based on a matrix originally developed by the government of Pakistan to compare the policy decisions in a variety of disaster reconstruction projects between 2001 and 2005. It demonstrates the range of options governments select in these situations.

How Project Managers Can Use the Handbook

Project managers can use the handbook in a number of ways to help improve reconstruction outcomes. The handbook can assist project managers who are participating in policy decisions by offering a systematic approach and a comprehensive set of options to inform policy decisions.

Project managers can also share the handbook with affected communities at the project level and use the information it contains to make more sound decisions in consultation with them.

In addition, the handbook can be provided to local government officials and officials of nongovernmental and civil society organizations. Using the options and concepts presented in the handbook as a frame of reference, it should be easier to define common goals and the means to reach them, as well as to establish better systems for coordination. In particular, the assessment methodologies and other guidelines included in the annexes can be starting points for joint action by a range of actors.

Please note that the house icon 🏠 is used throughout the handbook to alert the reader to related information elsewhere in the chapter or in another chapter.

The handbook is supported by a Web site, http://www.housingreconstruction.org, and a community of practice. The Web site contains additional materials related to each chapter and other relevant topics. Copies of the handbook can also be downloaded from the Web site.

The handbook will be updated periodically as comments are received from users and as the disaster reconstruction field and its best practices evolve. As you read and use the handbook, please feel free to comment on its contents at the Web site. User comments are most appreciated and will be taken into consideration to improve the next version of the handbook.

We sincerely hope that this handbook gives you the support you need to accomplish your goals and that it empowers your work as a project manager in any future post-disaster situation.

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