Chapter 1

Introduction to the Coastal Community Resilience Guide

The Indian Ocean tsunami of December 2004, which exacted a devastating toll in human suffering and destruction in affected coastal areas, was a painful reminder that coastal communities are vulnerable to unforeseen events that can bring about massive changes. Coastal communities today, around the world, are experiencing an unprecedented rate of change due to population growth in coastal areas, human-induced vulnerability, and global climate change. The effects of this change are placing communities at increasing risk from coastal hazards such as tsunamis, severe storms, and shoreline erosion.

It also has become evident that even without a major catastrophe such as a large tsunami, most coastal communities are not resilient to normally recurring hazards. This fact has raised the question of how to increase community resilience. The wide range of hazards taking their toll on coastal communities requires that the response to these various issues must be holistic, integrated, and long lasting.

What Is the Purpose of this Guide?

This Coastal Community Resilience (CCR) Guide was developed, building on lessons learned and experience gained in the Indian Ocean region after the 2004 tsunami, to address coastal hazards and reduce risk to vulnerable communities. The framework described in this CCR guide was developed in partnership with institutions throughout the Indian Ocean region, and is already beginning to guide development along Asian coasts most in need of building resilience. This guide attempts to broaden the perspective of sector plans so that a more holistic and robust planning framework evolves to truly elevate the potential for community resilience. The results of the CCR assessment process outlined in this guide can fit easily into and enhance development plans for any given coastal area, and can thereby complement traditional planning processes used by local and national governments.

How Was the Guide Developed?

The U.S. Indian Ocean Tsunami Warning System (US IOTWS) Program developed this CCR guide in collaboration with partner agencies and organizations. The development of this guide followed a participatory process in which key national government agencies, nongovernmental organizations, and individuals participated.
in a series of national and regional workshops to determine what constitutes “coastal community resilience” in each country. As a result of this participation, the threats to coastal communities in India, Indonesia, Maldives, Sri Lanka, and Thailand in particular are represented and addressed in the framework developed and portrayed in this guide.

A key theme in the development of this guide is that integration of efforts across sectors and with various organizations is a prerequisite to building community resilience. One of the main lessons in the aftermath of the tsunami of 2004—and seen in other coastal hazards stemming from poorly planned development—is that single-sector development planning cannot solve the complexity of problems posed by natural hazards nor build resilience to them. Resilience requires the spreading of risk and the development of integrated and holistic prevention and management programs. In this manner, unexpected changes can be absorbed more easily, so that disaster scenarios can be avoided whenever possible.

**Single-sector development planning cannot solve the complexity of problems posed by natural hazard, nor build resilience to them.**

**Who Is the Audience?**

This CCR guide is intended for use by a broad cross section of government agencies and nongovernmental organization practitioners involved in planning and implementing community development, coastal management, and disaster management programs. This varied audience and their roles in CCR assessment and enhancement may include the following:

- Practitioners working directly with coastal communities may incorporate elements of resilience discussed in this guide into a wide range of activities, including livelihood development, siting and construction of housing and settlements, health and sanitation, and food security.

- National and local government agencies may adopt the resilience framework described in this guide to promote collaboration among different government agencies.

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**Events that Helped Shape the CCR Guide**

- The 1st Indian Ocean Regional CCR Workshop (May 2006) defined resilience concepts and identified eight essential elements of CCR.

- National workshops on CCR in Sri Lanka (October 2006) and Indonesia (September 2006) provided insights on resilience based on country-specific contexts and applications.

- A small grants activity of the U.S. IOTWS Program provided opportunities for organizations throughout the region to work with communities to enhance CCR.

- National training courses on CCR in Sri Lanka (February 2007), Indonesia (April 2007), and Thailand (June 2007) developed skills for conducting CCR assessments.

- Trained organizations conducted CCR assessments in a range of communities, including rural, urban, and tourism areas of Sri Lanka, Thailand, Indonesia, India, and the Maldives.

- The 2nd Indian Ocean Regional CCR Workshop (August 2007) provided a forum for partner agencies and organizations to share experiences and lessons learned.
agencies and sectors, to develop plans and provide the enabling conditions for communities to implement good practices for enhancing resilience.

- International aid agencies, banks, and private donors may design and fund programs to enhance CCR based on the assessment approach and elements of resilience described in this guide to help sustain investments in these programs.

Collaboration and partnerships among these different stakeholder groups are essential in sustaining long-term, consistent efforts to build CCR.

**How Is this Guide Intended to Be Used?**

The CCR guide is intended to serve as a framework to highlight strengths and identify weaknesses and gaps in resilience that can be addressed by the community together with government agencies, nongovernmental organizations (NGOs), private sector, and other stakeholders. It focuses largely on how to assess CCR as a first step in defining actions to reduce risk, accelerate recovery, and adapt to change. The guide is intended to complement other planning tools and approaches. It is important that local government planning processes are used and enhanced through community participation and input, since often the only mechanism to build sustainability is through the locally legitimate planning and implementation mechanisms.

The CCR assessment described in this guide is intended to serve as a rapid assessment approach conducted as a collaborative and participatory undertaking by coastal communities, national and local government agencies, NGOs, the private sector, and other key stakeholders to identify strengths, weaknesses, and opportunities to enhance resilience at local and national levels. It can be used in a systematic manner to assess a CCR program in a region or for a particular development program.

The guide may also be used to provide input to the design of single-sector development projects that must be integrated, whenever possible, with other ongoing development projects in an area. It may also be used to assist in coordination among field programs that have similar and possibly overlapping objectives. Or it can simply be used as a reference to enhance other planning processes, procedures, and outputs. The range
of uses of this guide will be as varied as the number of potential users. Make the most of this resilience guide for your needs—whatever they may be!

Value of the CCR Approach Described in this Guide

- Provides a framework to integrate the goals of community development, coastal management, and disaster management
- Promotes a proactive approach to both chronic and episodic hazards rather than a reactive focus on response to disaster events
- Utilizes a broad assessment of community capacity and vulnerability to tsunami and other coastal hazards
- Merges goals of environmental sustainability and humanitarian assistance

What Is in this Guide?

This guide is organized into six chapters, including this introduction. A brief snapshot of each chapter is provided below.

Chapter 1 describes the purpose, uses, and organization of the guide and provides background on the participatory process used to develop the guide. Over 25 agencies and organizations working in the Indian Ocean region have contributed to the development of this guide.

Chapter 2 introduces the risks associated with coastal hazards and the concepts and framework for CCR.

Chapter 3 introduces that CCR framework. The framework for CCR is defined as the convergence of community development, coastal management, and disaster management. Eight essential elements of CCR emerged as a result of this convergence and are introduced along with benchmarks that characterize the desired conditions for each resilience element.

Uses of the CCR Assessment Tool Described in this Guide

Previous applications and potential uses of the CCR assessment tool include the following:

- Raise awareness of communities on the risks from coastal hazards and the need for community planning and preparedness
- Broadly assess community capacity and vulnerability to coastal hazards
- Help integrate and prioritize the contributions of different stakeholders in community development, coastal and environmental management, and disaster management
- Provide a guideline and checklist for community development for hazard mitigation
- Guide community and organizational capacity-building gap analysis
- Facilitate community issue identification and profile development
- Evaluate projects to establish a resilience baseline and monitor change as a result of project implementation
- Conduct surveys to compare community and government perceptions of preparedness
**Chapter 4** describes the process and steps for conducting a CCR assessment. The assessment process includes preparation, data and information collection, analysis, and evaluation of the findings against the resilience benchmarks for each element. This chapter also highlights the need to train the assessment team.

**Chapter 5** provides detailed descriptions of the importance of and relationship of the resilience elements. This chapter also serves as a reference to the benchmarks.

**Chapter 6** provides an overview, benchmarks, and examples of resilience in action for each of the eight essential elements of CCR. The benchmarks for each element are described, and illustrative assessment questions are provided at the end of each section. These sections serve as a reference for understanding each element and the benchmarks used to conduct a CCR assessment.

**Appendices** include worksheets that can be used to analyze and summarize the results of a CCR assessment (Appendix A). References and additional resources are provided in Appendix B. Finally, a sample training session guide that can be used to prepare and train the CCR assessment team is provided in Appendix C.