

Chapter 1

Introduction

Human development throughout the world confronts many uncertainties in everyday life. It also faces serious challenges from infrequent, extreme events, both natural and man-made (UNDP 2012). Those living in developing countries are relatively less able to prevent these crises, less able to withstand them, and less able to rebound. These groups have relatively fewer resources and lower levels of resilience capacities. They are therefore also less able to manage their remaining scarce resources effectively during recovery and less able to rebuild rapidly if at all. The bottom income strata are especially vulnerable, as they tend to live disproportionately in low-lying areas subject to riverine or coastal flooding, along mountain slopes prone to landslides, in dilapidated housing in earthquake fault zones, and near industrial sites that generate toxic pollutants. Many developing countries also have unstable governments that make some form of persistent armed conflict relatively more prevalent.

Crises interrupt the course of human development and some may even threaten survival. Resilience is a broad term to cover ways individuals, communities, countries and regions respond to these threats. For now, we offer the following broad definition by Wilbanks (2009):

A resilient community anticipates problems, opportunities, and potential for surprises, reduces vulnerabilities relative to development paths, social and economic conditions, and sensitivities to possible threats; responds effectively, fairly and legitimately in the event of an emergency; and recovers rapidly, better, safer, and fairer.

The major elements of this concept are captured more simply in the National Research Council (2012) definition:

Resilience is the ability to prepare and plan for, absorb, recover from or more successfully adapt to actual or potential adverse events.

The purpose of this volume is to define, measure, and apply the concept of economic resilience from societal, environmental, and personal security perspectives. We explore major dimensions of economic resilience and their implications for

human development. We emphasize resilience as a coping mechanism for dealing with short-term crises, such as natural disasters and acts of terrorism. An example would be evacuation of a geographic area due to riverine flooding. In this example, evacuation can be contrasted with migration, which is a form of adaptation to long-run, or chronic, problems of climate change due to coastal erosion. A special aspect of the volume is to understand how lessons learned in the short-run out of necessity and through the application of human ingenuity, can be incorporated into long-run sustainability practices. In part, this stems from viewing resilience as a process, and one that enhances individual and societal competencies.

1.1 Human Development and Resilience

Resilience plays a major role in *human development*. As originally set forth in the 1990 UNDP Human Development Report (HDR), development is essentially a process that enlarges the range of choices for people to achieve their full potential UNDP, 1990. The 1990 HDR proposed a Human Development Index (HDI) with three pillars: life expectancy, literacy, and command over resources (including shelter and infrastructure). This index, though limited in scope and subject to the same shortcomings as most indices, offered excellent insights in its application to a broad range of countries. It essentially provides a benchmark of the status of human development in a given country and a way to gauge future progress.

The 1990 HDR emphasized that human development was “people-oriented.” As was the case in Adam Smith’s classic treatise that serves as the basis of modern economics, it viewed the wealth of a nation as inherently being its people. It emphasized the importance of public participation and how this leads to empowerment, which in turn facilitates people attaining and better utilizing their abilities (especially women and minorities, whose progress on these fronts has historically been stunted). Also important was the role of freedom for several reasons, but participation and removal of obstacles to using abilities and resources to promote development are seen as especially worthwhile. For example, in comparing HDIs across countries, the more democratic ones had higher scores. The report focused on distributional issues and equity of opportunities, processes, and outcomes, again as an avenue for promoting human development. It also had a strong sustainability theme, including a long-run view of the development process, emphasizing that this perspective is necessary to avoid actions taken today undercutting the well-being of future generations. It noted that poverty was a major threat to the environment and hence to sustainability principles.

The 2014 HDR (UNDP 2014) report modifies the three pillars of human development in relation to resilience with respect to: reductions in vulnerabilities and deepening of progress, linking vulnerability to threats and materialization of deprivation of capacities, and policy formation for the public provision of goods and services. It stresses that uncertainty, especially pertinent to short-run shocks that

typically arise without warning, has key implications at all levels of governance. And furthermore, governance issues are especially critical in reducing conflict.

While much of the 2014 HDR continues to emphasize the long-run context and to focus on structural and systemic resilience issues, this chapter focuses on resilience in response to shocks, mainly short-term, such as floods, earthquakes, terrorist attacks, and nuclear power accidents, but it does also address slow-onset, long-term threats such as sea-level rise and desertification. It also discusses the bridging of the short-run and long-run. Most fundamentally, societies that do not respond well to short-run shocks are not likely to be sustainable. A key is translating lessons learned about successful responses to short-run crises into long-run capabilities, behavior, and policies.

Combining the resilience definition in the Introduction of this volume and the attributes just discussed, and insights presented in various HDR reports, we enumerate several specific ways that resilience relates to human development in the context of disasters:

- Resilience to disasters is a key to increasing life expectancy.
- Literacy should be more broadly defined to include knowledge of disaster threats, vulnerabilities and coping mechanisms.
- Disasters reduce resource bases and make the management of remaining resources all the more critical.
- Many facets of human security, such as freedom from want and fear and the importance of living in dignity, are all the more challenged in a disaster context.
- The vicious circle of poverty and environmental degradation are exacerbated by disasters.
- Human security declines leading to short-run deprivation are likely to have even more dramatic long-run consequences.
- Development involves “building,” whether physical structures or human capacity, and incorporating resilience at the outset is less costly than in the long run than retrofitting or not incorporating it at all.
- Public participation empowers people to contribute and also to acknowledge their responsibilities.
- Women represent an underutilized pool of talent in coping with disasters.
- Well-designed public policy is a key to improving resilience.
- People temporarily or permanently displaced by disasters are especially vulnerable.
- Development involves extensive institution building, and so does resilience.
- Resilience poses many challenges, as does human development, but also greater opportunities for cooperation in crises, where lasting effects on relations between countries can be improved.
- Sharing of resilience experiences is as valuable as sharing human development experiences.
- Disasters tear the social fabric of society, so key to human development.

- Diversification is a good development strategy, and is also a good strategy for reducing disaster vulnerability.
- Development requires the maturing and orderly functioning of markets, which can serve as an excellent source of resilience by providing signals on increased scarcity value of goods and services.
- Many resilience strategies are consistent with development strategies for the wise utilization of resources.
- Disasters make individuals more susceptible to social and political chaos in general, and crime and terrorism in particular.
- Resilience indicators have all the challenges of the human development index in general.

Overall, resilience is viewed as a way of deepening and sustaining human progress. It is also seen as a way to make the best of tragedies by turning them into opportunities.

1.2 Overview

This chapter has summarized the relationship between resilience and human development in general. Chapter 2 presents an economic framework for analysis, including principles that are important for understanding the role of resilience to individual decision-makers in the economy as a whole. Chapter 3 presents definitions of resilience from several major disciplines including: ecology, engineering, organizational behavior, psychology, sociology, planning, and economics. We cull out major attributes of resilience in these definitions and identify differences, but find that they are far outnumbered by the commonalities. Chapter 4 presents definitions of various types of economic resilience and their implications, and in Chap. 5 we explore their broader dimensions, and examine the relationship between resilience and several other key concepts such as vulnerability, adaptation, and sustainability. In Chap. 6, we discuss the measurement of economic resilience in terms of temporal, spatial, and scale dimensions. This involves examining the time-path of resilience and relating it to the recovery process. We discuss spatial variability in general, as well as the displacement of people within and across countries. In Chap. 7 we summarize empirical findings on measuring resilience. This includes evaluating progress on the formulation of resilience indices. Chapter 8 presents a risk-management framework, including aspects of cost-effectiveness and cost-benefit analysis. In Chap. 9 we explore co-benefits of disaster risk management in general and the important role of resilience. We conclude with a discussion of how short-run resilience actions can be transformed into long-run sustainability practices that help to avoid backsliding in our progress on human development.

References

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