

“Assessing Urban Vulnerability and Social Adaptation to Risk”

Pelling distinguishes between two responses to disaster. The most common approach is the “structural response,” with the underlying assumption that disaster devastation is a technical problem. Pelling points out that in many cases, the technology exists to reduce disaster risk, yet marginalized groups lack the social and political power necessary to make decision-makers respond to their concerns. While the structural response is important, Pelling argues that it fails to examine the cultural and social factors that increase physical vulnerability to disaster.

Pelling introduces the social vulnerability approach, in which people’s vulnerability is affected by their access to material, social, and political assets. According to this definition, social vulnerability is not synonymous with poverty; in addition, Pelling stresses the importance of recognizing the different risks within communities due to age, gender, case, or land-holding status, all of which can affect vulnerability and risk. Pelling discusses the concept of “adaptive potential,” which consists of two different responses to risk: coping (behavior that directly reduces the likelihood or impact of a shock) and institutional modification (which changes institutions in a way that allows greater coping behavior to develop).

Pelling uses the example of Los Manguitos to illustrate that increasing the participation of local actors in reducing urban disaster risk can be extremely important, but that local actors by themselves cannot be expected to carry the burden of risk mitigation: local and national governments must play a critical role. I found the recognition that a continued push for participatory, bottom-up approaches can lead to undue stresses and a shifting of the responsibilities of the state to the poor a particularly welcome observation.

“The Vulnerability of Cities”

Pelling argues that a particular set of challenges arise in the face of urban disasters, which are smaller, more frequent and more diverse than rural disasters. Urban areas can act as a “crucible”, in which one disaster has a multiplier effect: for example, immediate flooding may cause immediate injury and destruction of physical assets, but water supplies may become polluted, leading to disease.

Pelling divides vulnerability into three components: exposure (primarily a function of physical location, and character of surrounding environment); resistance (a function of the economic, mental, and physical health of the affected); and resilience (the ability of an individual to cope with a given shock). As in the first article, all three components of vulnerability are shaped by access to social, political, and economic resources.

Pelling discusses the “entitlements” or livelihoods approach, in which the assets used for poor people to cope, when lost, can worsen the cycle of poverty by reducing the household’s income earning capacity.

Pelling argues the need to distinguish among those with different risks in urban contexts: women, squatters, low-skilled laborers, those with little human capital (such as education or training), and those with few social networks. Pelling also discusses how income diversification is one of the most effective tools in mitigating the impact of disasters. I would be interested to see any research on how social capital works across rural and urban areas: it is very common for rural families to have family members in the city who send money home after unforeseen shocks such as floods or crop failures, and for rural families to send money to the cities during times of high unemployment.

“From everyday hazards to disasters: the accumulation of risk in urban areas”

The authors argue that in the context of growing urbanization, the definition of “disaster” must be expanded to include smaller hazards that, while they may affect less people, because of their frequency affect a greater number of persons overall. The authors highlight the divide between urban specialists, who see vulnerability as a function of people’s asset stocks and “risks to livelihood from external shocks,” and disaster specialists, who focus on the extent to which people are physically at risk from disaster and their existing mechanisms to cope with the dangers, as well as the vulnerability of key institutions or systems to deliver essential services. This divide prevents urban hazards from being adequately addressed.

The authors argue that “small” disasters in urban areas have different characteristics (spatial concentration and number of people at risk, greater diversity of hazards, and synergy of hazards) than rural disasters, but that studying vulnerability and coping mechanisms to “smaller” urban disasters can provide valuable lessons for reducing vulnerability to more infrequent, larger scale disasters. While it is absolutely important to “create a locally owned process of risk identification and reduction,” and “root (the understanding of risk) in local contexts,” I believe that empirical studies are critical to getting the funding necessary to improve urban risk management. International funding agencies and donors require documentation of problems and evidence of what works before committing to long-run programs. The authors’ call for greater empirical studies would assist in this area.