



*Water supply is a major concern following an earthquake.*

officials from key sectors - housing, transportation, urban planning, building control - can be used to effectively integrate recovery planning concepts and principles with long-range planning for the community. The goal of the exercises is to place these officials in a stressful environment where they will be confronted with time-sensitive decisions on a range of rehabilitation issues.

3. *Conduct a vulnerability studies that will evaluate the performance of key public facilities and structures.* Vulnerability studies become the basis for relocation decisions regarding public facilities and services.
4. *Define the roles and responsibilities of key actors before the disaster strikes.* Building the capability to manage the rehabilitation of public facilities and services is essential to timely recovery; yet, conflicting agendas and competing priorities in sectoral planning may impede effective management, and ultimately the progress of the recovery effort.

### **Post-Disaster Actions**

Decisions that are made during the Rehabilitation phase will shape the entire recovery process. In effect, the repair and restoration of public facilities and services will influence the

nature of redevelopment, the direction of redevelopment, and the timing of redevelopment. Government officials may select from several options in prioritizing the restoration of public facilities and services, including.

- Rehabilitation of government buildings and facilities in order to re-establish the provision of basic services to the public
- Rehabilitation of facilities and services in support of housing reconstruction.
- Rehabilitation of community-side critical facilities to re-establish equilibrium and a sense of "normalcy "
- Investment in services that support local production capability in an effort to revitalize the economy.
- Investment in services to stimulate local economic activity with emphasis on small businesses and the informal sector.

The course of action that is taken will in reality be a combination of the above, depending on the nature and extent of damages, pre-disaster economic conditions, growth management policies prior to the disaster (i.e. decentralization versus centralization in capital improvements planning), and the overall availability of resources to fuel the recovery effort.

## **Business Recovery**

The pace of community recovery following a major earthquake will be directly tied to how quickly and effectively the business community is able to recovery. In Latin America and the U.S , the central business district or market is the "heart and soul" of the community, the challenge of rebuilding has enormous implications: financial as well as psychological.

At least two categories of businesses will be impacted by an earthquake. first, are the large retail chains that tend to be located in local or regional shopping centers, and secondly, are the locally owned businesses that often operate with limited capital, typically in a building that is rented or leased. For the first category, a damaging earthquake may mean the temporary closing of a few outlets; for the second category - the independent merchant - an earthquake can spell disaster. loss of building, loss of inventory, and loss of utility services. Smaller communities are particularly vulnerable to the loss of tax revenue from business interruption.

A business recovery strategy should be tailored to the unique needs of local business owners; should actively involve local chambers of commerce and other business organizations in the pre-disaster and post-disaster planning; and a business recovery strategy should be an integral part of a local or regional strategy for economic development. While conditions will vary from nation to nation and community to community, a business recovery strategy should be guided by a common goal. to re-establish commercial activity to facilitate the community's recovery. Following is a discussion of the key elements of a pre-disaster business recovery strategy.

### **Pre-Disaster Actions**

1. *Form an alliance of business and government to re-review the policies, plans and procedures that will govern the rehabilitation and rebuilding process.* This includes: building

inspection criteria and procedures, local government priorities in rebuilding, and plans and procedures for rehabilitation of historic structures.

2. *Develop and maintain a local business and commerce data base* The foundation of a business recovery strategy is a pre-disaster inventory of all commercial buildings in the community that is designed to assist public officials in determining the earthquake's economic impact. Information to be gathered includes: ownership, value, type of structure, occupancy, and the nature of the business. This information, which in many instances is available through the local planning agency or community development department, can be used to determine priorities for inspection, repair, restoration of services, and other actions.
3. *Develop a business relocation plan.* The plan should take into consideration the location and space requirements of businesses (for example, restaurants require access to water supply). Organizations involved in the contingency planning process include: planning and community development, building, health and fire departments. The commercial vacancy list should be utilized as part of the relocation plan.
4. *Conduct business recovery workshops and exercises.* Table top exercises can be very effective mechanisms for bringing together key groups that have a role and responsibility for managing the rehabilitation and recovery process. The objective is address - under stimulated disaster conditions -



*Shops operate out of temporary  
"pavillions" in Santa Cruz, California*

the major tasks associated with business recovery: building inspection, demolition decisions, public access policies, public information requirements, and financial options that are available to initiate the relocation and rehabilitation process.

### Post-Disaster Actions

Communities that have active business associations tend to be more resilient following a disaster. Problems and issues can be anticipated, confusion and dissension can be minimized, rebuilding priorities can be established, and economic revitalization can be accelerated. When an earthquake strikes, government must be prepared to take several steps to expedite business recovery, as discussed below.

1. *Enact procedures for limiting access to the damaged areas*
2. *Conduct building damage assessments to determine the nature and scope of damages to businesses, utilities, road systems and other infrastructure.* These assessments will provide community officials with information on structural damages to businesses, including: buildings that can be immediately utilized; buildings that need bracing or reinforcing; and buildings that need to be demolished.
3. *Create an information resource referral system or directory to keep business rehabilitation and recovery.* The Business association can assume an active role in information dissemination among its membership.
4. *Institute a program to provide displaced businesses with inexpensive, alternate business locations as soon as possible after the earthquake.* Accessibility is one of many key factors to consider in planning for temporary business facilities.



### Case Study: Loma Prieta Earthquake

On October 17, 1989, Santa Cruz, California (population 40,000) was rocked by an earthquake that lasted for fifteen seconds and measured 7.1. For all practical purposes, the downtown business district - the source of about 20 percent of the city's sales tax - was destroyed. The city's two department stores had to be demolished as did thirty other buildings.

The first essential step towards saving the downtown economy was to find space for the many businesses that had been displaced by the Loma Prieta earthquake. Santa Cruz officials took decisive action. With Christmas season approaching, a series of aluminum skinned temporary buildings were erected near the downtown business district on vacant land that was donated by the Bank of America. These "pavilions" were one of the most creative measures undertaken by Santa Cruz after the earthquake.

The Santa Cruz Downtown Association took the lead in urging local government to pursue a public-private partnership in the post-disaster planning for rehabilitation and reconstruction. The Association was pro-active from the start. It assisted "homeless" businesses find new space; published daily updates on business relocations, developed methods for merchants to re-enter the disaster area; and worked with local government to establish a marketing strategy for local business.