Disaster Reduction in Urban Areas: Concepts Made Simple

Disaster reduction is a necessity for urban inhabitants, an obligation for local authorities and a strategic resource for development promoters

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(reduced and edited by the editors)

The world population is growing , quicker in some parts of the world than in others. But there is no doubt that this situation will persist. In cities in particular there is an influx of populations from the surrounding areas, mostly in search of opportunities of work and better living conditions. One person out of a family of 4 or 5 is gainfully employed. The others are a mere addition to the urban population.

All this influx adds to the basic urban problems. Since open spaces in cities are limited, high-rise buildings become a necessity. Thus, shelters for people and structures for markets, schools, hospitals, etc., grow along with the population. The transport system is always strained as more people congregate in the cities.

This causes a tremendous strain in the management of cities. One has to think in terms of natural disasters which still affect almost any part of the world, and which cause tremendous hardships to the society. Each hazard has an impact on the population, both human and animal.

Floods usually follow strong rains and winds, and cause flooding of the rivers, landslides, etc. Cyclones cause similar damages. Tsunamis take coastal populations by surprise and may kill dozens of people in a matter of minutes. The landslides release debris from high altitudes to lower ones, often causing floods, pollution of water sources, etc. Volcanoes are a comparatively rare phenomenon and their locations are generally known.

Last but not least, the earthquakes. These are the most unpredictable natural calamities. They can occur almost anywhere, though they are generally confined to areas known as plate boundaries. However, in this century there has been enough evidence proving that they can materialize almost anywhere, anytime, and of any magnitude, varying from low intensities, which are usually only frightening, to very violent ones, which cause a complete devastation. The time of occurrence is important - if a high-intensity earthquake occurs during the day, when most people are out of their houses, a large segment of the population will not be hurt. But if the same earthquake happens at night, the loss of lives will be greater.

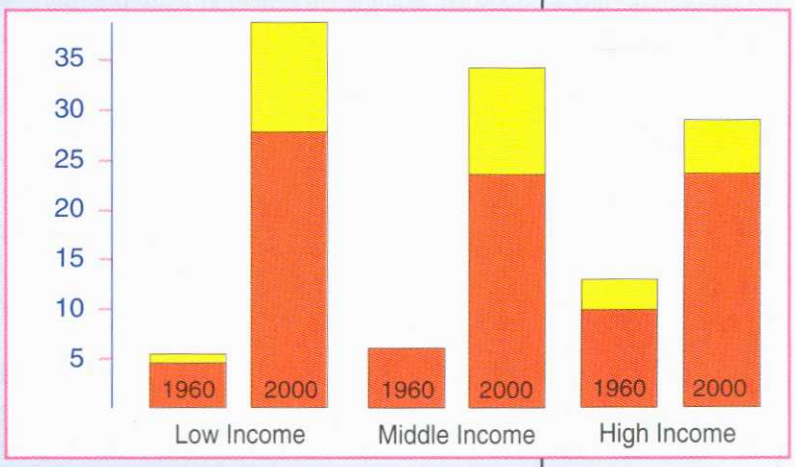
Some disasters, such as floods, cyclones, fires, etc. occur during predictable times. The only disaster the locaton, time, and intensity of which cannot be predicted, is an earthquake. Hence, it calls for a much greater care and caution.

All disasters ultimately result in destruction. And the best thing one can do in this respect is to create awareness, followed by popularization of the known methods of mitigation.

Psychological impacts of disasters are usually very severe. Some people are not able to recover from the shock. Normal urban utilities such as communicaton, electricity, water supply, drainage, etc. are dislocated. The same applies for all means of money earning possibilities for affected populations.

It is logical that bigger cities with a higher standard of living face more risks due to natural disasters. Therefore, unless some precautions are taken beforehand, there is no hope of survival or escape from the consequences of disasters.

URBAN TRENDS
Growth in the number of large cities (3-8 million inhabitants) and megacities (over 8 million inhabitants) in low, medium and high income countries
Source: Megacities: reducing vulnerability to natural disasters. The Institution of Civil Engineers, London, UK, 1995



Urban populations should be advised to insure their properties against natural calamities. Fire-fighting and ambulance services should be ready at all times. Combustible substances in people's houses or public places should be reduced to a minimum, packed properly, watched and protected from fire.

The role of women and children is as cru-

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cial as ever. Once they know what steps should be taken in their own houses and in the community, they diligently implement what they know Children look after old and handicapped persons. They can also cut off electricity, and make sure that nothing is hanging above the head level.

Obviously, prolonged blackouts can disrupt cities' economic and commercial activities and development.

After the disaster, certain steps should be taken. After removing the casualties, the priority should be restarting the electricity, water and food supply, etc. Most houses are damaged beyond quick repair and thus unsafe to live in.

Therefore, large temporary shelters must be raised. The government and social institutions will plan a large-scale housing and provide for basic necessities.

Disaster prevention, mitigation, preparedness, relief and rehabilitatoin are the main elements of natural disaster reduction. Recognizing the need for these elements, the United Nations is observing the present decade as the International Decade for Natural Disaster Reduction (IDNDR). As more than half of the decade is passed there is a spectacular awakening and implementation of these elements all over the world.

It is hoped that by the end of the century most cities, even those in undeveloped regions will be prepared to face these disasters, thus reducing the deaths and injuries to the minimum. Houses and infrastructure must be constructed with an eye on disasters

The Sustainable Cities Programme

In recent years the urban environment has become a major source of international concern· cities - which absorb two-thirds of the population growth in the developing countries - make a vital contribution to social and economic development at national and local levels.

However, full realization of cities' potential contribution to development is often hindered by environmental degradation, which obstructs the full utilization of city resource bases and renders cities vulnerable to environmental hazards The Sustainable Cities Programme (SCP), established in the early 1990s to put into practice concepts of the joint Habitat / UNEP publication "Environmental Guidelines for Settlements Planning and Management", is a joint Habitat / UNEP facility for the development of a sustainable urban environment, founded on public participation. A fundamental concept underlying the SCP's activities is that we must look within the cities themselves if we are to achieve lasting urban sustainability.

Disaster situations in urban areas are a symptom of inadequate planning and management Proper management of the urban environment includes management of natural resources and environmental hazards, which, in turn, reduces the likelihood of urban disasters.(1)

The SCP strengthens capacities in urban management and planning at the local level, a community sensitized to SCP's concepts is a community aware of the effects and consequences of its actions in the urban environment.

The Awareness and Preparedness for Industrial Emergencies at the Local Level (APELL) workshop, held in Concepción, Chile in April 1995 as part of SCP activities, is an example of community preparedness for urban disaster. The goals of the workshop were to pinpoint issues to be considered in a plan for technological emergencies and the necessary institutional arrangements to carry out the plan.

SCP initiatives in other cities have addressed issues such as treatment of solid waste, establishment of storm water drains, management of hazardous lands, and control of sewage discharge into local rivers The SCP partner cities are creating urban centers where resources are sustained and renewed, and in which disasters are avoided or dealt with through concerted local effort.

Although each city develops its own response to local needs, all demonstrations are designed to generate certain outputs·

- A strategic development plan which includes key components of environmental planning and management strategies, sector-investment strategies, financial planning and administrative / legal requirements;
- Technical assistance projects and bankable investment packages based on priority actions identified in the strategic development plan;
- A capacity-building program to strengthen the skill and institutional arrangements needed for Environmental Planning and Management,
- A review mechanism for evaluating the success of the program, and for sharing experiences with other SCP cities.

(1) Environmental Guidelines for Settlements Planning and Management, Vol III (UNCHS-Habitat / UNEP, 1987)

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