

Making Cities Safer... before disaster strikes

Cities at Risk (unsafe practices)



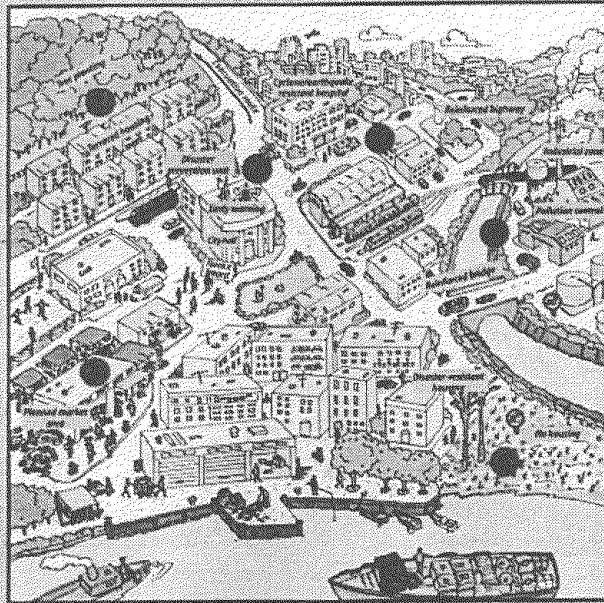
● Landslides heading on unstable slopes.
Deforestation



● Inadequate emergency planning and warning. Unmarked evacuation routes.



● Lack of urban planning. No safety measures. Lack of open space.

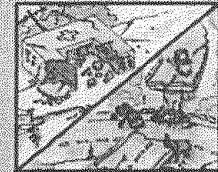


International Strategy for Disaster Preparedness
IDNDR
1990-2000
Building a Culture of Prevention

A long illustration is part of the 1996 Cities at Risk Awareness Campaign to celebrate the International Disaster Reduction Day supported by the UN Development Programme Administration. Content adapted from a poster developed by the Colombian National System for Disaster Prevention and Response.

Design: Martin Langford Illustration: John Phillips

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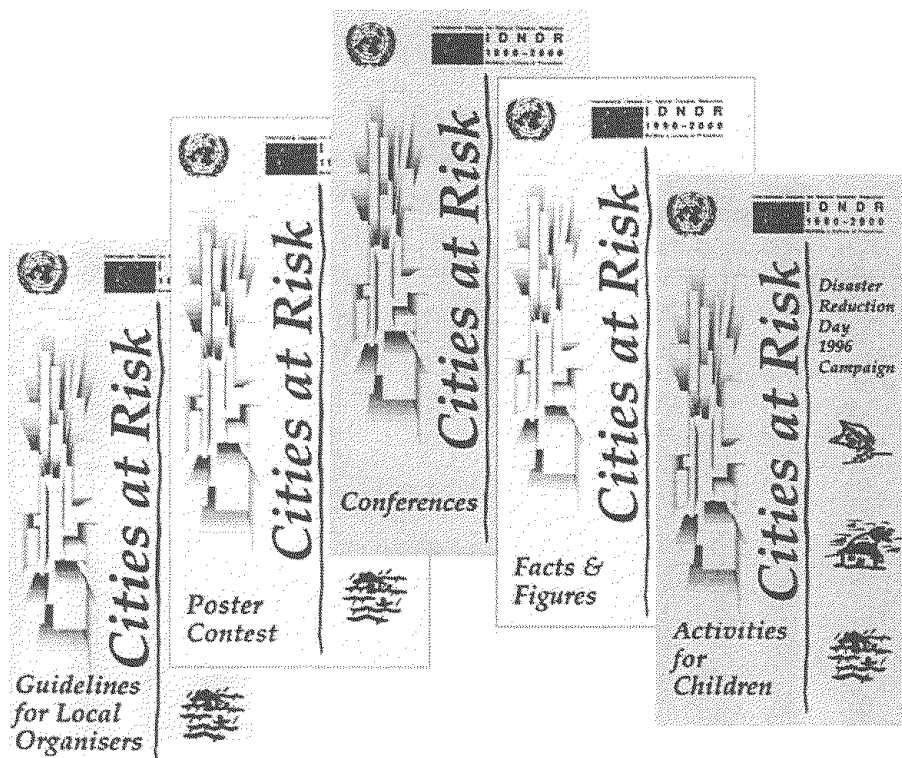
● Inappropriately built and poorly maintained essential facilities and services



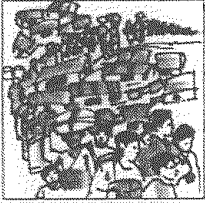
● Housing and industry too close to each other. Bad management of industrial wastes. Technological disaster risks.



● Inappropriately constructed buildings in high risk locations.

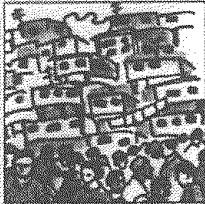


What Makes Cities Vulnerable to Disasters?



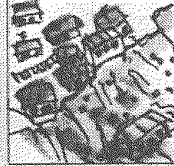
Rapid Growth and Inadequate Planning

As cities cannot always manage rapid population growth, poor people settle illegally in hazardous areas. Slums and squatter settlements are always exposed; these services are lacking, and local governments as well as new settlers often have no means daily problems to worry about preventing disasters that may occur years later.



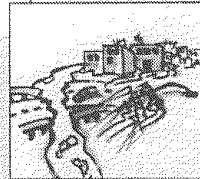
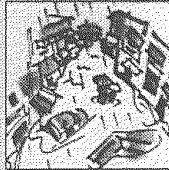
Population Density

When people are concentrated in a limited area, a natural hazard will have a greater impact than if people are dispersed. Population density in the largest cities in developing countries is high, and often higher in old parts of the city or in squatter settlements.



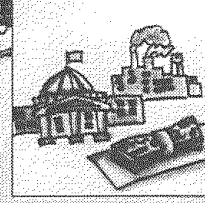
Ecological Imbalance

As rapid urban development changes local ecosystems, "natural" disasters can result. A shortage of appropriate drainage systems, together with encroachments on waterways, and inefficient planning has made some cities vulnerable to flash floods. In others, deforestation has led to hillside erosion, making people vulnerable to landslides triggered by heavy rains. Overuse of groundwater resources leads to land subsidence, making the area more vulnerable to flooding or earthquakes. The use of concrete has changed the ability of soil to absorb water, leading to flash floods.



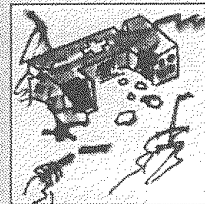
Dependency on Infrastructure and Services

People in cities depend on infrastructure and public services. It is difficult for the population to meet their daily needs if the electricity is cut, bridges have collapsed, telephones don't work and water mains are broken. Essential services such as health care and firefighting are especially important after a disaster. After the Mexico City earthquake in 1985, the collapse of hospital buildings killed trained personnel, seriously hampering health services.



Concentrated Political, Economic and Other Resources

Too many political, industrial, financial or other resources in one urban area can have regional, national or even international repercussions. If a major earthquake were to strike Tokyo, for example, global financial markets could be affected.



Inappropriate Construction

Many people die in buildings that collapse in a disaster. In earthquakes, up to 80% are killed by falling buildings. Brick buildings without a concrete frame are often dangerous in an earthquake. Wooden houses need to be strapped to their foundations so that they don't blow away in hurricane winds. Improving construction methods is usually effective in reducing casualties, and can be done at low cost.