

Section A3

Land Use Planning and Vulnerability Assessment

Objectives

- Discussion of hazard risk and vulnerability
- Discussion of landuse and vulnerability
- Review of planning approaches and practices
- Review of coastal tourism policies
- Discussion on what is being done to assess vulnerability

Hazard Risk and Vulnerability

❖ Link Between Hazard Risk and Vulnerability

Risks to natural hazards are determined by meteorological, oceanographic, biophysical and other environmental factors often beyond the control of persons living in the affected areas. However, human activities contributing to global warming affect climate in a manner that can increase the frequency or probability that an area may experience a natural hazard event and therefore increase the area's level of risk. In the case of droughts, human impacts may create almost permanent physical and meteorological change. This may increase the frequency in which an area is subjected to drought.

Vulnerability derives from the relationship between risks associated with natural hazards and policies, land use, building and other practices that expose populations to the impacts from natural hazard events. One of the objectives of undertaking assessments of socio-economic and environmental impacts of disasters is to reduce vulnerability to future natural hazards through mitigation.

❖ Landuse and Vulnerability

Throughout the region there are countless areas of human existence associated with hazard prone areas:

- Coastal settlements and tourism facilities exposed to storm surge;
- Buildings in areas subject to yearly flooding;
- Structures build on the banks of rivers and streams;
- Low income households built precariously on steep slopes subject to erosion and landslips;
- Communities threatened by volcanic activity



Figure 5: Risk & Vulnerability – The relationship with planning

Figure 6
Examples of Land Use practices leading to Vulnerability

Other examples of landuse practices leading to vulnerability...

- Coastal settlements/tourism facilities exposed to storm surge
- Homes/roads built on precariously steep slopes subject to erosion & landslips
- Communities in areas at risk to volcanic activity



Other examples of landuse practices leading to vulnerability...

- Buildings in areas subject to flooding
- Structures built on banks of rivers/streams

the wrong approach



the traditional approach

Landuse practices continued...

- Road on steep slope damaged by heavy rains; gabion baskets used to restore slope.

