

Chapter 1: Disasters and Ecosystems

Geographical Context

- One of the most disaster-prone countries in the world
- Divided into 7,107 islands with low-lying coasts
- Ranks 3rd in the UNU's list of countries most vulnerable to disaster risks and natural hazards
- Within the Pacific Ring of Fire
- Within the Pacific Typhoon Belt
- Average of 20 typhoons yearly, 5-7 are destructive

Social Context

- Widespread poverty
- Coastal Livelihood
- Settlement pressure leading to deforestation
- Population shifts combined with underdevelopment

Chapter 2: Introduction to disasters, risk reduction, and climate change

Concepts and Definitions

Ecosystem, Ecosystem Services, Livelihoods, Disaster, Risk, Disaster Risk, Hazard, Vulnerability, Exposure, Capacity / Resilience

$$\text{RISK} = \text{HAZARD} \times \frac{\text{VULNERABILITY}}{\text{CAPACITY}} \times \text{EXPOSURE}$$

ECOSYSTEM

Ecosystem: An ecosystem is a community of organisms interacting with each other and with their environment such that energy is exchanged and system-level processes, such as the cycling of elements, emerge.

Ecosystem Services: The benefits that people and communities obtain from ecosystems:

- "regulating services" such as regulation of floods, drought, land degradation and disease, along with
- "provisioning services" such as food and water,
- "supporting services" such as soil formation and nutrient cycling, and

- "cultural services" such as recreational, spiritual, religious and other non-material benefits.

Livelihoods: A livelihood is a means of making a living. It encompasses people's capabilities, assets, income and activities required to secure the necessities of life.

Disaster: "A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which Exceeds the ability of the affected community or society to cope using its own resources."

Risk: The combination of the probability of an event and its negative consequences.

Disaster Risk: The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

Hazards: Natural (Physical) hazards: can be classified in several ways but are usually broken down into the two broad categories: (1) geophysical and (2) biological hazards.

Vulnerability: The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

Exposure: People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

Capacity: The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions

Notes:
