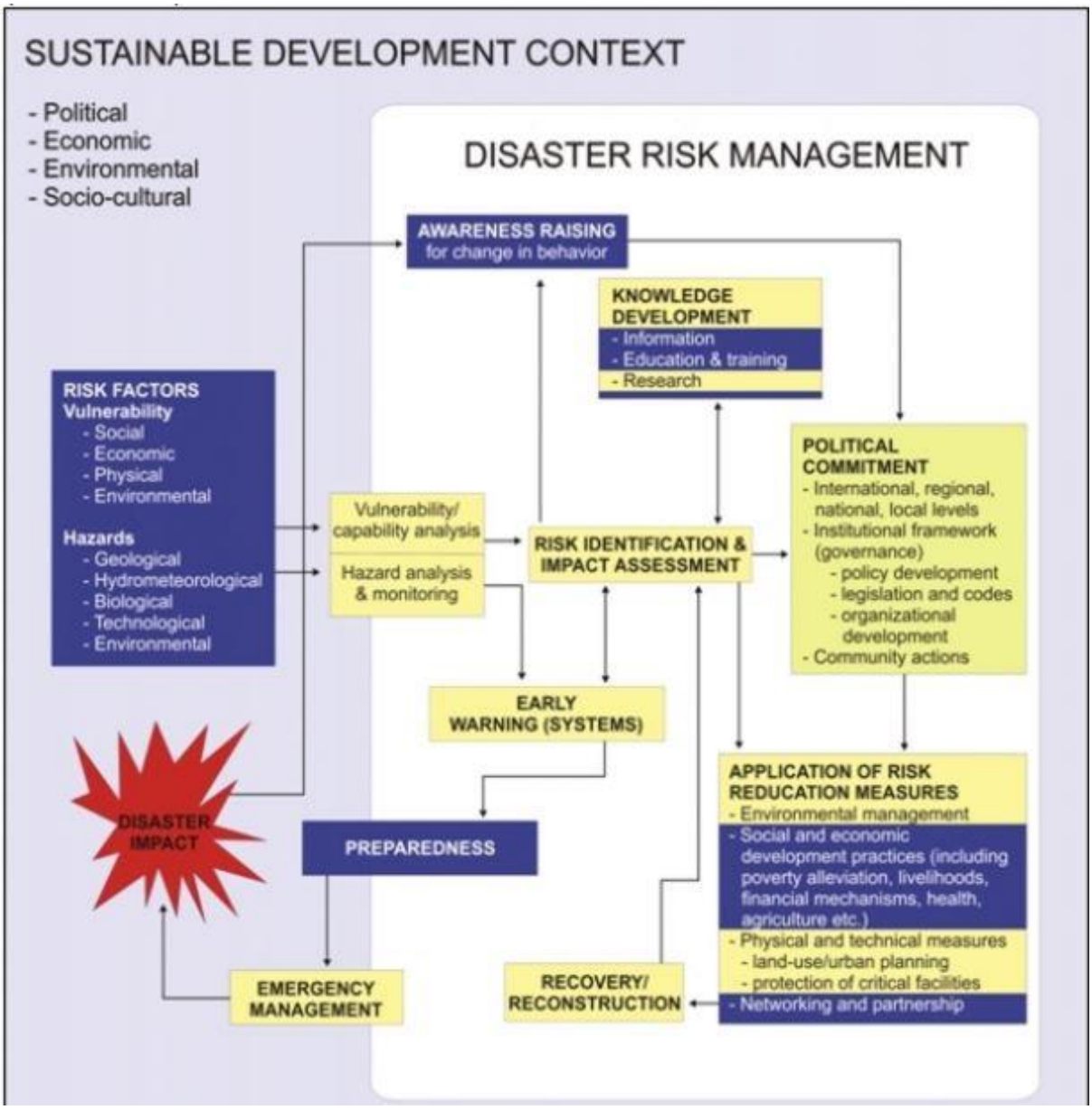
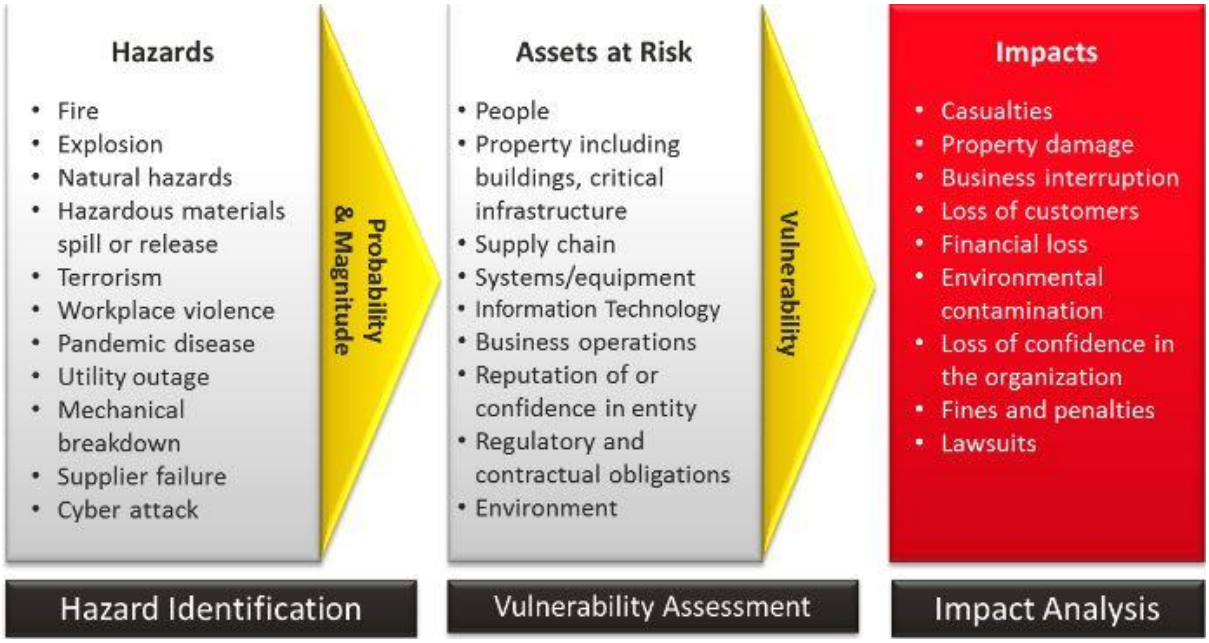


Frame work of Disaster Risk Reduction

WHAT IS RISK ASSESSMENT?

It defines as a risk , as the probability of harmful consequences casualties, damaged property, lost livelihoods, disrupted economic activity, and damage to the environment resulting from interactions between natural or human-induced hazards and vulnerable conditions. Risk assessment is a process to determine the nature and extent of such risk, by analyzing hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Risk assessment, therefore, is an integral part of decision and policy-making processes and requires close collaboration among various parts of society.



Comprehensive risk assessment consists of the following steps:

1. Understanding of current situation, needs and gaps.

2. Hazard assessment: to identify the nature, location, intensity and likelihood of major hazards prevailing in a community or society.

3. Exposure assessment to identify population and assets at risk and delineate disaster prone areas

4. Vulnerability analysis to determine the capacity (or lack of it) of elements at risk to withstand the given hazard scenarios.

5. Loss/impact analysis to estimate potential losses of exposed population, property, services, livelihoods and environment, and assess their potential impacts on society.

6. Risk profiling and evaluation to identify cost-effective risk reduction options in terms of the socio-economic concerns of a society and its capacity for risk reduction.

Elements at risk during /after the disaster:

1. People

2. Livestock

3. Rural housing stock

4. House vulnerable

5. Crops, trees, telephone, electric poles

6. Boats, looms, working implements

7. Personal property

8. electricity, water, food supplies

9. infrastructure supports

Risk factors vulnerability:

Physical Vulnerability: It includes damaged or destroyed by natural hazard such as earthquakes or floods. It is based on the physical condition of people and elements at risk, such as buildings, infrastructure etc.; and theirproximity, location and nature of the hazard. It also relates to the technical capability of building and structures to resist the forces acting upon them during a hazard event.

e.g. poor design and construction of buildings, unregulated land use planning, etc.

Economic vulnerability: the potential impacts of hazards on economic assets and processes (i.e. business interruption, secondary effects such as increased poverty and job loss) Vulnerability of different economic sectors,

e.g. the uninsured informal sector, vulnerable rural livelihoods, dependence on single industries, globalisation of business and supply chains, etc.

Social vulnerability: the potential impacts of events on groups such as the poor, single parent households, pregnant or lactating women, the handicapped, children, and elderly; consider public awareness of risk, ability of groups to self-cope with catastrophes, and status of institutional structures designed to help them cope.

e.g. poverty and inequality, marginalisation, social exclusion and discrimination by gender, social status, disability and age (amongst other factors) psychological factors, etc.

Environmental vulnerability: the potential impacts of events on the environment. Natural resource depletion and resource degradation are key aspects of environmental vulnerability. Example: Wetlands, such as the Caroni Swamp, are sensitive to increasing salinity from sea water, and pollution from storm water runoff containing agricultural chemicals, eroded soils, etc.

e.g. poor environmental management, overconsumption of natural resources, decline of risk regulating ecosystem services, climate change, etc

Disaster Risk Reduction: It refers to the conceptual framework of elements considered with possibilities to minimize vulnerabilities and disaster risk throughout a society, to avoid (prevention) it only includes (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable developments.

Disaster Risk Management: It includes but goes beyond Disaster risk reduction by adding a management perspective that combines prevention, mitigation, and preparedness with response.

Risks Assessment and Analyses:

Risk assessment includes the identification of hazard agents (seen as hazards risk factors in Figure 1, e.g., tsunamis, flooding, oil leakage, and urban fires), exposure and consequence assessment, and risk characterisation. The first, and perhaps most difficult step in the process, is to identify all hazardous conditions. For example, an earthquake can affect and damage key infrastructure such as water supply systems, roads, bridges petroleum depots, power, housing and trigger secondary events such as liquefaction, landslides, rock falls, raised and drops in land against sea level and flooding from water and irrigation systems. Risk cannot be reduced unless vulnerability and hazardous conditions are recognised before they trigger impact.

Once a hazardous condition is recognised it must be evaluated to determine the threat or risk it presents. The level of risk is a function of the probability of exposure to the hazard and the severity of the potential harm that would be caused by that exposure. Some hazards may present very little risk to people or equipment (e.g. a toxic chemical well enclosed in a strong container in a stationary secure and unpopulated area). Additionally, risk factors include social, economic, physical and environmental vulnerabilities.

What is a Risk Management

Risk management encompasses all those activities required to reach and implement decisions on risk reduction or elimination. Once a risk has been characterised, an informed decision can be made as to what control measures, if any, are needed to reduce the risks or eliminate the hazard. Control measures can consist of any action for risk reduction or elimination. Often control measures involve reducing the probability of occurrence or the severity of an incident. Risk management also must start at the lowest possible level of government administration and community with each level accepting responsibility for an appropriate level of mitigation, preparedness, and response and/or recovery activity. This includes strengthening and supporting community level initiatives on disaster risk reduction and encouraging active Participation or involvement of people in the process of risk assessment, planning, implementation of disaster risk management strategies and activities.

The Social, Economic and Environmental Context of Disaster Risk Reduction Framework

This Policy aims to be consistent with accepted risk reduction strategies that will Considerably reduce social and economic losses caused by natural and human-induced Disasters such as technological hazards and conflicts.

The essential points adopted in this Policy cover:

a) A necessary shift in managing disasters from a traditional manner – emergency assistance or crisis management – to disaster, conflict and climate change risk Reduction strategies;

b) The general framework and activities of disaster risk management;

c) Integration and mainstreaming of disaster, conflict, climate change and adaptability Across all sectors through economic, social and environmental national recovery and Development;

d) A focus on strengthening community capacities and reducing vulnerabilities;

e) Integration of gender perspectives;

f) The need for attention to be given to children and youth in disaster risk management

Main objectives of Disaster Risk Management

The right to life is recognized by the Constitution of the Democratic Republic of Timor-Leste. It is the mandate of the National Disaster Management Directorate (NDMD) to guarantee this right in circumstances of disasters.

The general objective of NDMD is to reduce the risk of disasters. Reducing the risks of disasters is obtained through the diminishment of the occurrences of disasters. Internationally a focus on "reduction" was chosen because the action "eliminate" was deemed to be an unachievable objective.

Disaster reduction actions consist of the following global aspects:

a) Disaster Prevention;

b) Disaster Preparedness for Emergencies;

c) Disaster Response;

d) Recovery/Reconstruction Post-Disaster/Development.

Difference between Disaster risk management and disaster risk reduction:

Disaster risk management	Disaster risk reduction
1. It includes almost all kinds of activities, which strength and also non-structural actions to prevent hazards.	1. It avoid the prevention and includes the all kinds of activities , which strength and also non-structural actions to prevent hazards
2. It includes Mitigation, preparedness, prevention , recovery,	2. Risk is a "measure of the expected losses due to a hazard event occurring in a given area over a specific time period. Hazards x Vulnerability =disaster risk
3. It also includes rehabilitation, reconstruction, recovery, relief	3. It includes the hazard analysis and preparations to taken up before disaster.
4. Measures taken up prior to impact of the disaster to minimize its effects sometimes refer to which strength and also non-structural actions to prevent hazards. 5. It includes all financial and legal aspects.	4. Measures to be taken to alert disaster from occurring, if possible to impede hazards so that it does not have harmful effects. 5. It does not include financial and legal aspects.
6.It have a authorization structure includes government and non-government agencies	6. It have only local people to authorization before disaster preparations like early warning.