

COMMUNITY BASED DISASTER RISK ASSESSMENT



HVCA

Learning Objectives

- Understanding the purpose of community risk assessment;
- Understanding and learn about how to conduct community risk assessment exercise.

Key Concepts

- **Community risk assessment provides a systematic process for identifying, estimating and ranking local disaster risk**
- **Community risk assessment is a necessary step for the adoption of adequate and appropriate risk reeducation measures**
- **Community risk assessment involves four (4) interrelated components – Hazard Assessment, Vulnerability Assessment, Capacity Assessment and People's perception of risk**

Participatory Risk Assessment

Hazard Assessment

Vulnerability
Assessment

Capacity Assessment

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Participatory Risk Assessment

Hazard Assessment :

Determines the chances of experiencing any natural or human-made hazard or threat in the community. Assessment includes the nature and behavior of each of the hazards the community is exposed to.

Vulnerability Assessment :

Identifies what elements are at risk and why they are at risk.

Participatory Risk Assessment

Capacity Assessment :

Identifies the peoples coping strategies, resources available for preparedness, mitigation and emergency response, who has access to and control over these resources.

People's perception of risk :

Identifies the perception of risk of the heterogeneous groups and sectors, which make up the community, measurement of the community's disaster risk based on people's participation.

Participatory Risk Assessment

- ❑ Community Risk Assessment is a participatory process of determining the nature, scope and magnitude of negative effects of hazards to the community and its household within an anticipated time.
- ❑ It determines the probable or likely negative effect (damage and Loss) on “elements at risk” (**People – lives and health**, households and community structure, facilities and services ,schools, hospitals etc. **Livelihood and economic activities** -Job, equipment, crops, livestock, etc. **lifelines** – access roads and bridge) and to find out why particular groups or community are vulnerable in the context of hazard and why others are not.
- ❑ The coping mechanisms and the resources (Capacities) present in the community are also essential consideration in community risk assessment.

Why community Assessment (HVCA) ?

- ✓ To reduce the community risk and to prioritize the major hazards so that the community can address all its disaster risk on the basis of its capacities and resources consequently finding out the frequency, extent of damage and their other consideration.
- ✓ To ensure that the risk reduction process is inadequate and appropriate. Because the Risk reduction planning should integrate preparedness and long-term mitigation measures and able to balance in between the two.
- ✓ To ensure that risk reduction management will be cost-effective and sustainable. To balance the two effects, one should track out the existing community capacities, material, social and attitudinal capacities to reduce vulnerabilities.

Why community Assessment (HVCA) ?

Community Risk Assessment -

- ✓ Provides a systematic process for identifying, estimating and ranking community risk
- ✓ Contributes the awareness to the community, about potential risk they did not know before. This is usually the contribution of External Bodies (Govt. & non Govt. Agencies) who bring with scientific and technical Support & information Regarding hazard which the community has not experience before
- ✓ Is an essential precaution towards proper decision making in the disaster risk reeducation and development policies, strategies, plans.

Why community Assessment (HVCA) ?

- ✓ To identify and access the external resources and support by the very community to build an effective strategies for the circumstance, which the community cannot address by itself
- ✓ It provides the community and supporting agencies with baseline data which is useful during the natural or man made calamities to reconstruct and compensate the damage, needs etc.
- ✓ Community risk Assessment provides the data with disaster specific baseline to the community and supporting agencies for developmental planning purpose.

Why community Assessment(HVCA) ?

- ✓ Community Risk assessment provides database to the all intelligence agencies and information agencies so that they can take measures during the emergency period (even when the community is inaccessible for the supporting agencies.)
- ✓ To have an analytical yardstick regarding the growth and success of the obtaining Process over time line.



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Hazard Assessment Process

PICTURES

Hazard Assessment Process

- # Hazard assessment is necessary to understand the nature, scope and periphery of the calamity.
- # Hazard assessment is the process of estimating the probabilities of the occurrence.
- # Hazard assessment is to find out the potentiality of damaging phenomena and other harmful effects.
- # Hazard assessment involves analysis of existing topographical, geological, geomorphologic, hydrological and land-use maps, as well as analysis of social and economic and political condition with the previous records of incidents.

Hazard Assessment Process

(To understand the nature and behavior of hazards we need to **identify**)

Force : Wind, water (rain, flood, overflow, run-off, flash flood, tidal wave, storm surge, epidemic), land (slides, deposits by river, lahars, mudflow), fire (forest fire, settlement fire), seismic (earthquake, tsunami, liquefaction), conflicts (civil war, insurgency, other action leading to displacement and refugees), other human-related (famine, drought, pests, etc.)

Warning signs and signals: Scientific and indigenous indications for hazard.

Hazard Assessment Process

(To understand the nature and behavior of hazards we need to identify)

Speed of onset: Rapidity of arrival and impact. We can distinguish between hazards that occur without almost any warning (earthquake), hazards that can be predicted almost before three to four days (typhoon) and very slow-onset hazard like drought and famine.

Frequency: Does the hazard occur seasonally, yearly, once every 10 years, once in a lifetime, etc.

Hazard Assessment Process

(To understand the nature and behavior of hazards we need to identify)

When: Dose the hazard occur at a particular time of the year (wet or dry session, in November to December ?

Duration: How long is the hazard felt (earthquake and aftershocks, days/weeks/months that are is flooded; length of period of military operation)

Hazard Assessment Matrix

Type of Hazard	Elements increasing Force/Pace of the Risk	Fore Warning (Yes/No)	Speed of the Risk	Time between Knowledge of the Risk and its Impact	Frequency of Occurrence	Time/Season of Onset of Risk	How Long the Risk Situation/Impact is observed
Floods							
Earthquake							
Others							

Hazard could be termed as an event or a constant situation, having possibility to cause damage to life and property on mass scale. Both natural and manmade hazards could become a disaster.



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Vulnerability Assessment

Vulnerability Assessment

- ❑ Vulnerability is a set of prevailing or consequential conditions, which adversely affect the community's ability to prevent, mitigation, prepare for or responds to hazard events.
- ❑ These long-term factors, weaknesses of constraints affect a household, community's or society's ability (or inability) to absorb losses after disasters and to recover from the damage.
- ❑ Vulnerability precedes the disaster event and contributes to their severity, impedes disaster response, and may continue long after a disaster has struck.

Vulnerability Assessment

Vulnerability Assessment is the process of estimating the weakness of 'elements at risk' (People from backward community, Women in need, Child in need) and analyzing the cause and root of cause which place these elements at risk. The assessment takes into account the physical, geographical, economic, social and psychological factors, which attributes negative cause to some people and positive to others. Because of that in a given situation some people are in trouble while others are relatively protected.

Vulnerability Assessment

A hazard is the Trigger Event, which sets off the disaster. It could be an earthquake, volcanic eruption, landslide or civil conflict.

The Unsafe Condition is the vulnerable context where people and property are exposed to risk of disaster. These make the community vulnerable to a particular hazard. The physical environment is one element. Other factors include an unstable economy and low – income levels.

Vulnerability Assessment

Dynamic Pressures (Gender barrier, Religious barrier, caste barrier etc.) within the society are the immediate cause of the Unsafe Conditions. **This Dynamic pressure answers the question of HOW unsafe or damage conditions have arisen.**

Beneath the Dynamics Pressures are Underlying Causes, which cause communities or sections of it to be unsafe and vulnerability. These are fundamentals and ideologies on which the society is built. Vulnerability is not a situation that just happens. Most often it has developed as a progression from underlying Conditions to Dynamic Pressure, to unsafe condition. These underlying or root cause answer the question WHY dangerous or unsafe condition persist if the fundamental causes of disaster risk are not addressed, then the disaster situation will soon repeat itself.

Vulnerability Assessment Matrix

Type of hazard	Group at Risk	Vulnerability Conditions	Elements Affecting Capacity of Responders	Root Causes

Existing or eventually occurring situation which dater's local community's capacity of mitigation, preparedness, rescue and fighting against disaster.



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Capacity Assessment

Capacity Assessment

Capacity are strengths and resources that presents in individuals, household and the community and enable them to cope up with, withstand, prepare for, prevent, mitigation, or quickly recover from a disaster .

❑ Capacities can also be categorized in the context of physical/materials, social/organizational and attitudinal/motivational factors.

❑ Capacity assessment is the process to determine how people cope in times of crisis to reduce the damaging effects of hazards. Through capacity assessment, the community's coping strategies and resources, which are available, for disaster preparedness, mitigation and prevention are identified.

Capacity Assessment

The Capacity Assessment Process involves the following key components:

- Understanding of people's previous experience with hazard and the coping strategies, which they have developed.
- Analyzing which resources are available and used by the community to reduce disaster risk and the controller who has access and control over these resources.

Capacity Assessment Matrix

Hazard	Capacities (Physical and Tools)	Capacities (Financial, Social, Services)

Capacity means power and capability to fight against a disaster, which is present in people of all the communities. The other meaning of capacity could be tools available with community which can be used for coping up, preparation and mitigation activities.

Thanks