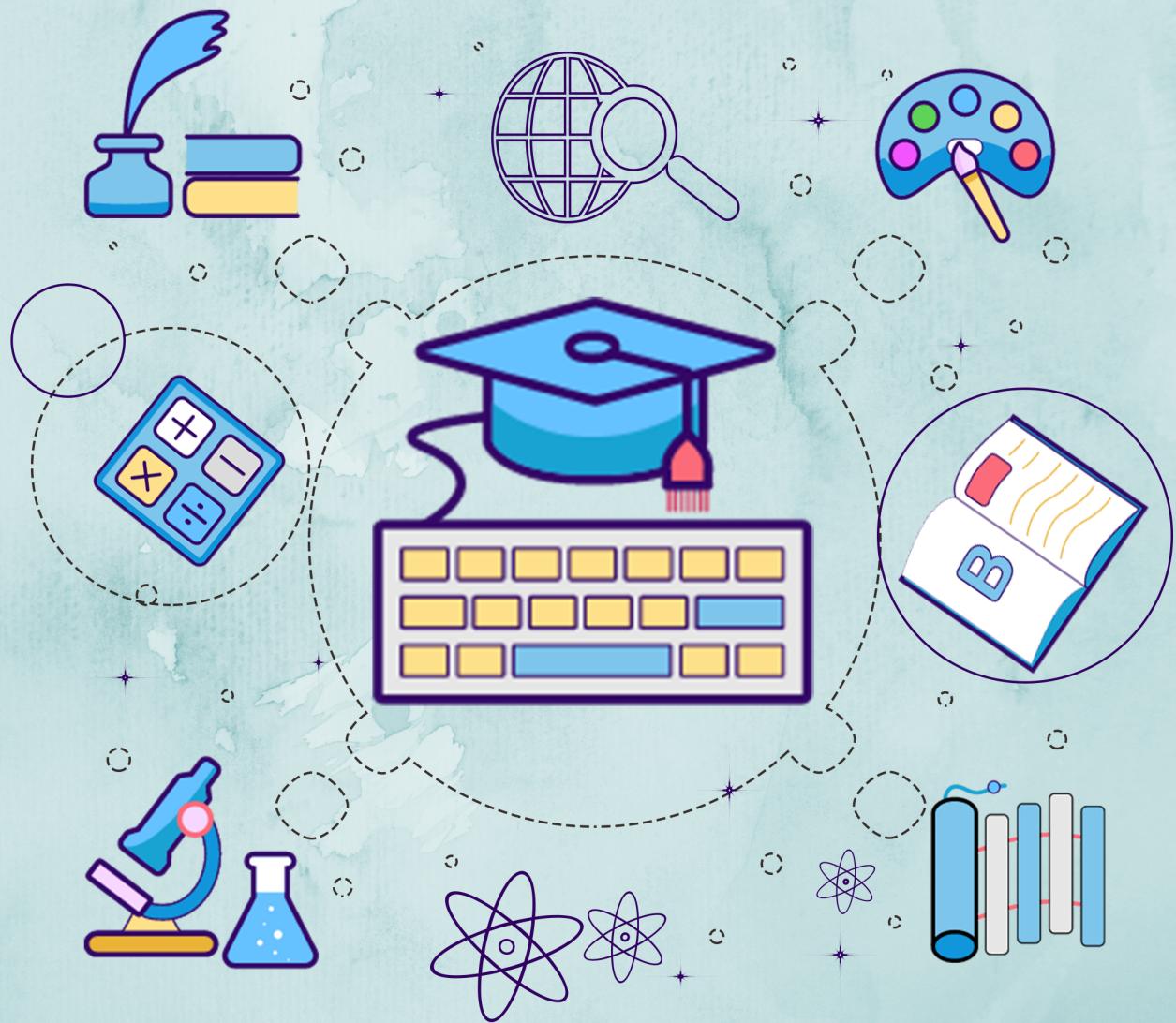


Kerala Notes



SYLLABUS | STUDY MATERIALS | TEXTBOOK

PDF | SOLVED QUESTION PAPERS



KTU STUDY MATERIALS

DISASTER MANAGEMENT

MCN301

Module 4

Related Link :

- KTU S5 STUDY MATERIALS
- KTU S5 NOTES
- KTU S5 SYLLABUS
- KTU S5 TEXTBOOK PDF
- KTU S5 PREVIOUS YEAR
SOLVED QUESTION PAPER

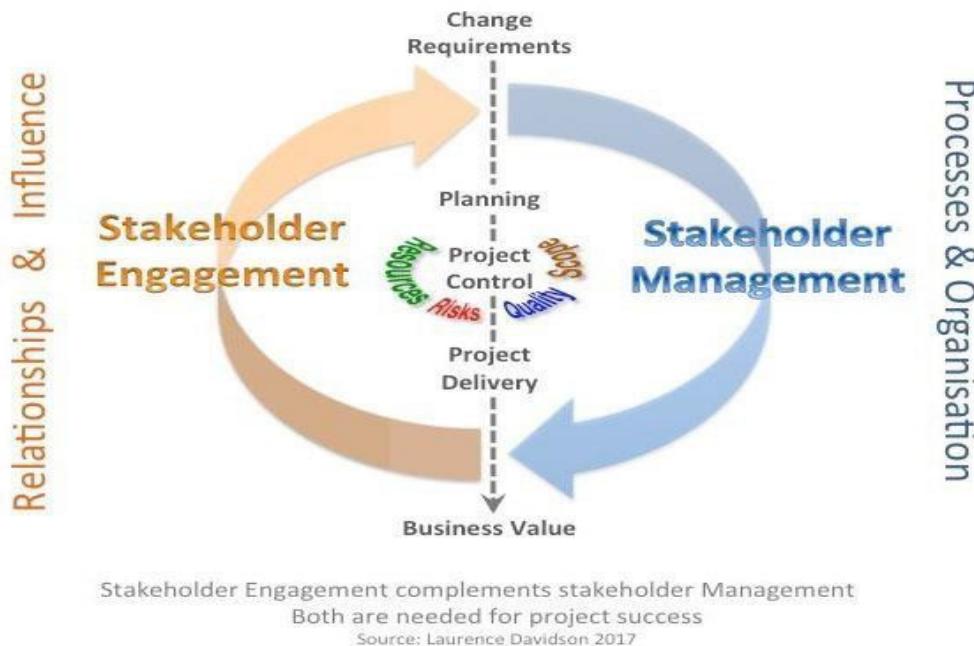
KTU S5
MODULE 4
Disaster Management

Participatory Stakeholder Engagement

Stakeholder ‘participation’, stakeholder ‘engagement’ and stakeholder ‘involvement’ is the interactions between two or more stakeholders in policy making, development projects, and decision making in disaster risk reduction (DRR) education.

‘**Stakeholder participation**’ is the process through which people with common interest (stakeholders) influence and share control over development initiatives, decisions and resources that affect them.

Stakeholder engagement is **the systematic identification, analysis, planning and implementation of actions designed to influence stakeholders**. A stakeholder engagement strategy identifies the needs of key groups and the sponsor plays a vital role in ensuring those business needs are met.



HOW STAKEHOLDER ANALYSIS IS DONE?

- > Stakeholder analysis is done using either a grid method or salience model.
- > The grid method uses two parameters about the stakeholders to analyse and create a grid.
- > One of the most popular grids used is a “power-interest” grid.
- > In this grid, every stakeholder will be judged based on their power and interest towards the project
- > Accordingly all the stakeholders will be segregated into different quadrants of “high power – high interest”, “high power – low interest”, “low power – high interest”, “low power – low interest” .
- > This technique helps in putting the stakeholders at the right places so that appropriate strategies for each of them or each group can be worked out.
- > Salience model is also used in some cases for conducting stakeholder analysis. Salience model uses three parameters about each stakeholder to decide their position.
- > The three parameters used are “power”, “urgency” and “legitimacy” of each stakeholder towards the project. Below are examples of a grid analysis and salience model analysis:

1 . Plan stakeholder engagement :

- Once the stakeholders are identified and prioritized based on their power and interest, it will be time to develop appropriate management strategies for each of them. A stakeholder engagement plan is developed.
- The stakeholder engagement plan includes another round of analysis of stakeholders to study their “current” position of engagement and the “desired” position of engagement which will be beneficial for the project.
- A stakeholder engagement assessment matrix is prepared. Generally the stakeholders may fall in one of the five levels of engagement, namely, “Unaware”, “Resistant”,

“Neutral”, “Supportive”, and “Leading”.



- It is important to see the current levels of engagement of each stakeholder and ensure that they all become towards the project. This analysis helps in determining the exact steps and actions to be taken so that all stakeholders can be moved to their “desired” of engagement.

2 . Manage stakeholder engagement :

- Once appropriate stakeholder engagement strategies are developed, then the project manager and project team will start engaging with stakeholders with the intention of understanding their perspective towards project and seeking their support for successful completion of the project.
- Continuous and positive engagement and involvement of stakeholders is critical to project success.
- The project manager uses all the interpersonal and communication skills, social and cultural skills in this effort to engage the stakeholders.

3 . Monitor stakeholder engagement :

- It is important to keep assessing the actual stakeholder engagement and determine if that is as per required engagement level, if not the team will have to adjust some of the strategies so as to improve stakeholder engagement in the desired direction.

Forms of Stakeholder Participation:

The three basic forms of stakeholders are:

•*Primary stakeholders:*

Those directly affected (positively or negatively) by it. They include local populations as well as poor and marginalised groups. In disaster risk reduction, these stakeholders include: homeowners, renters, homeless persons and community-based small-scale businesses.

Prepared By, DeviSree M K AP, ERCTC Manjeri

- **Secondary stakeholders:**

These refer to those who are indirectly affected by it. They include the government, line ministry and project staff, implementing agencies, local governments, civil society based organisations, private sector firms, and other development agencies. The Ghana Police Service, National Fire Service, National Disaster Management Organisation (NADMO), Ghana Education Service (GES), Non-Governmental Organisations (NGOs), etc. are all part of this group.

- **Key stakeholders:**

This group can significantly influence, or are important to the success of the project through financial resources or power. Key stakeholders could include National Disaster Management Organisation (NADMO), Ministry of Local Government and Rural Development (MLGRD), Metropolitan, Municipal and District Assemblies (MMDAs), etc.

Basic Steps in Participatory Stakeholder Engagement

Generally, the most fundamental steps in stakeholder analysis can be enumerated as follows:

- Step 1: Identify key stakeholders;
- Step 2: Assess stakeholder interest and the potential impact of the new initiative
- Step 3: Assess stakeholder influences and importance and
- Step 4: Outline a stakeholder participation strategy

Step 1: Key Stakeholders Identification

The first step of stakeholder analysis is to identify relevant stakeholder groups. Key questions to ask in addressing this issue are:

- Who are the programme or project targeted beneficiaries?
- Who might be adversely impacted?

Prepared by, Devisree M K AP, EKCTC Manjeri

- Will the project impact (positively or negatively) on any group?
- Who are the projects main supporters and opponents?
- Who is responsible for carrying out planned activities?
- Who can contribute financial and technical resources?

Step 2: Analysis of Stakeholder Interests and Programme/Project Impacts

Once relevant stakeholder groups have been identified, the next step is to analyse their interests (overt and hidden) and to assess the potential impact of the proposed project on their interests. Key questions for participants to answer include:

- What are their key concerns and interests with respect to the project?
- What are stakeholders' expectations of the project?
- What conflicts might a group of stakeholders have with a particular project strategy?
- How do different groups of stakeholders relate to each other?
- Is there convergence/divergence between their interests and expectations?

Step 3: Stakeholder Prioritisation

The analysis of stakeholder interests and project impacts should allow the project team to categorise different groups of stakeholders and to determine the relative priority that the project should give to each stakeholder group's interest.

Key questions to engage the attention of participants are:

- Who are the project's targeted primary beneficiaries?
- What is the importance of each stakeholder group to the success of the project?
- What is the degree of influence of each stakeholder group over the project?

Benefits and Cost of Stakeholder Participation

The potential benefits of increased stakeholder participation include the following:

- Improved programme/project design
- Improved means of verifying the relevance and appropriateness of proposed interventions;
- Increased uptake of project services and greater willingness to share costs;
- Enhanced sustainability as a result of increased stakeholder ownership;
- Opportunity to foresee and/or resolve potential obstacles, constraints and conflicts;
- Opportunity to generate social learning and innovations based on field experience;
- Capacity-building of stakeholders and local institutions
- Improved means of ensuring that project benefits are distributed equitably;
- Strengthened working relations between stakeholders, government and civil society organisations and development partners.

Costs and Risks

The principal cost is the absence of stakeholder participation in programmes and projects. Lack of stakeholder participation can lead to:

- Higher up-front costs in terms of time and resources;
- Danger of undertaking poorly planned activities due to limited time, capacity, commitment or resources;
- Lack of political will on the part of governments to allow wide stakeholder participation because they fear loss of power or influence;
- Difficulty in reaching out to marginalised groups and ensuring

that the true priorities and needs of poor and vulnerable groups are represented;



- Difficulty in identifying genuine representative non governmental organisations (NGOs) and civil society organisations (CSOs);
- Creation of unrealistic expectations;
- Aggravating conflicts between stakeholder groups with different priorities/interests;
- Weak capacity of beneficiary and intermediary organisations

Methods and Tools for Participatory Stakeholder Engagement

Participatory Meetings and Workshops

- you can use more than one idea in a session, and you should always leave time in the schedule to include participatory approaches and techniques to stimulate thinking, reflecting, discussing, and engaging

Panel Discussions

- Panellists build off each other's answers to elicit different opinions and deepen the discussion.
- The discussion can start with an overview presentation and brief comments from each panellist to frame the discussion and provide the audience with an understanding of the experience and viewpoint each panellist brings.
- The majority of the session time can then be spent in a question and answer format with questions from both the moderator and participants.
- Presentations can be effective when the goal is to make guidance, concepts, viewpoints or specific experience clear.
- When working with a presenter, be sure to provide clear guidance on the points you would like the presenter to focus on so he or she can minimise the time spent on project overview and maximise the time spent delving

Prepared by, Devisree M K AP, EKCTC Manjeri

deeper into the key lessons learned or implications for others.



Pyramid Schemes

- Participants are given a question or problem to think through on their own for a few minutes.
- They are then asked to join with a neighbour to discuss the topic in twos, then in a subsequent round in groups of four or six, then in groups of eight or twelve.
- Growing the groups larger provides the opportunity for friendly challenging of ideas and cross-fertilising the best of answers across groups.

Debates

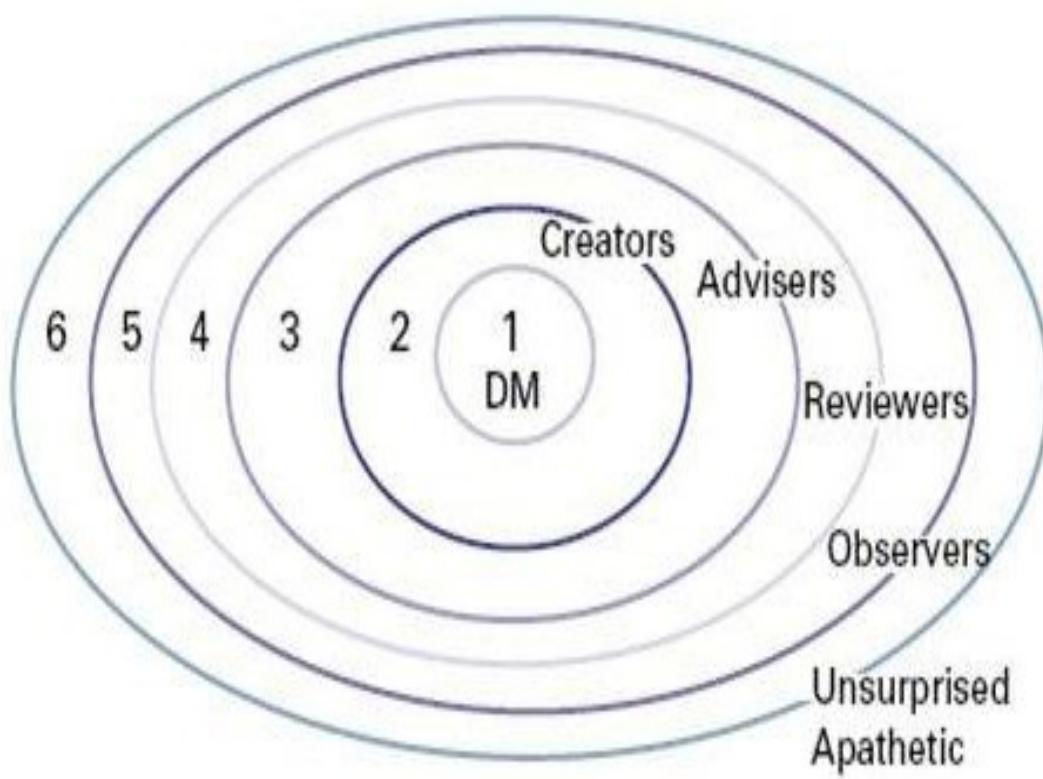
- Speakers present opposing sides of an issue.
- This format can liven up a discussion topic that lends itself to debating pros and cons, multiple views, or conflicting opinions around an issue.
- As a variation, groups of participants can be assigned opposing sides of an issue and asked to formulate the key debate points as a group.

Round Table

- Participants form groups around a specific topic area in order to share experiences and discuss ideas.
- This format provides an informal setting for starting dialogue, sharing and discussion.
- Roundtables are similar to working sessions but generally are not as formal and may be used to simply start the discussion without the time allotted to work toward completing a joint project.

Levels of Stakeholder Participation

- In designing the participatory process, the level of involvement of each stakeholder, depending on the given institutional framework, differs and should be defined.
- Different levels would require the involvement of different stakeholders.
- Experience shows that involving all stakeholders to participate fully in all decision-making stages is neither realistic nor useful in a given situation.
- Each stakeholder category has a specific role to play and can be said to have an orbit of influence with respect to a particular activity.



The decision-makers are at the centre of the orbit of influence on the decision-making process.

- Orbit 1 contains the stakeholders who are partners in decision-making. Final decisions must be made with their concurrence.
- Orbit 2 features the creators, who are deeply involved in the decision being made and in developing alternatives and are therefore constantly involved.
- Orbit 3 consists of the advisors, who are active but not constantly involved and are called upon periodically for advice.
- Orbit 4 features the reviewers, those who wish to be kept informed before a decision becomes a policy, rule, law or fait accompli. However, they do not feel the need to be active throughout the process.
- Orbit 5 contains the observers. These are people who do not want to be surprised. They watch and react only if an issue concerns them. However, they could be party to the process, but not entirely involved.
- The outer orbit holds those who are not seen in the process, but who will react if they are suddenly surprised and feel threatened.

Disaster communication

- Communication during and immediately after a disaster situation is an important.
- How do you communicate during a disaster ?
- For non-emergency communications, use **text messaging, e-mail, or social media** instead of making voice calls on your cell phone to avoid tying up voice networks.
- Disaster risk communication may take place through many different channels, including face-to face conversations, telephone calls, group meetings, mass media such as television, radio, Internet and interactive social media such as Twitter and Facebook.

Importance of Communication in Disaster Risk Reducing

1 . Communication promote preparedness for disasters:

- Being prepared can reduce fear, anxiety, and losses that accompany disasters.
- Communities, families, and individuals should know what to do in the event of a fire and where to seek shelter during a powerful storm.
- They should be ready to evacuate their homes and take refuge in public shelters and know how to care for their basic medical needs.
- People also can reduce the impact of disasters and sometimes avoid the danger completely.
- Have a list of emergency contacts (fire, police, ambulance, etc.) in your cell phone and near your home phone.
- Be sure every family member has emergency phone numbers and a cell phone.
- Teach children how and when to call 911 for help.
- Make sure everyone in your family knows how to send a text message.

2 . Communications provide early warnings signals of disasters

- Communication and dissemination systems ensuring people and communities receive warnings in advance of impending hazard events, and facilitating national and regional coordination and information exchange.
- Warnings must reach those at risk. Clear messages containing simple, useful and usable information are critical to enable proper preparedness and response by organizations and communities that will help safeguard lives and livelihoods.
- Trust is a big part of effective risk communication. If the information source cannot be trusted, those at risk may not respond proactively to the warnings – and it takes a long time to establish trust.
- Regional, national and local communication systems must be pre-identified and appropriate authoritative voices established.
- The use of multiple communication channels is necessary to ensure as many people as possible are warned, to avoid failure of any one channel, and to reinforce the warning message.
- There are numerous standards and protocols used by alerting authorities to transmit warnings.
- The Common Alerting Protocol is an international standard format for emergency alerting and public warning, developed by the International Telecommunication Union and promoted by a number of agencies.
- It is designed for “all-hazards”, that is, hazards related to weather events, earthquakes, tsunamis, volcanoes, public health, power outages, and many other emergencies.

3 . Communication facilitates proper response to disasters:

- It is impossible to plan communication without considering strategies, material design, and media activities which, in the case of the health sector, will provide the population with messages to protect themselves and improve their quality of life.

Prepared by, Devisree M K AP, EKCTC Manjeri

- When dealing with emergencies and disasters, communication planning becomes a complex and challenging undertaking.
- It involves the collection, organization, production, and dissemination of the information that makes it possible to make informed decisions and mobilize necessary resources.
- Sources and key shareholders must be identified and different audiences must be given priority.
- It is vital to create messages that will make health agencies visible and relevant to the population, the international community, donors, communications media, and organizations involved in international disaster response.

Steps to Effective Communication:

- Use standard terminologies when communicating-risks, disaster, coping, resilience, vulnerable, etc.
- Request and provide clarifications when needed- allow/encourage the beneficiaries to respond to issues they are not sure of.
- The communicator should also be well informed about the situation of thingswithin the community where the information is to be disseminated.
- Ensure statements are direct and unambiguous.
- Inform appropriate individuals when the mission or the plan changes.
- Communicate all information needed by those individual or teams external tothe team.
- Use non-verbal communication appropriately.
- Establish a calling tree so that everyone calls into one designated caller to check-in, and that person relays information to everybody else.

Barriers to Effective Communication:

- In emergency situations, communication breakdowns between potential victims and first responders can have dire consequences including unnecessary pain, misdiagnoses, drug treatment errors, unnecessarily long hospital stays and even death.
- Language barriers often exist when first responders and receivers have difficulty talking to people who speak a different language.
- Many areas have people who speak many different languages. Also, first receiver may come from other countries to help.
- In addition, communication may be difficult when people are under intense stress, which is inevitable during an emergency.
- Non-Focus on the issue at hand, not being attentive
- Avoid interruption, show interest in what is being said
- Avoid being judgemental but make provision for feedbacks
- Pay attention to non-verbal communication
- Be conscious of individual differences
- Keep stress in check but be assertive

Disaster communication methods:

1. Social Media:

> This feature allows users who are located within a certain distance of a natural disaster's occurrence, to log in and tell friends if they're safe and check to see if their loved ones have verified their safety as well.

2.Two-Way radio:

> A two-way radio (also known as walkie-talkies) is a pair of handheld devices that can connect with each other provided both are on the same frequency, within a certain distance.

> One user can talk while the other listens and vice-versa.

3.Citizens Band Radio:

> A CB radio is capable of short-distance communications on various frequencies.

> It is similar although more complex than a regular two-way radio as it contains more functionality.

4.Mobile Applications (Apps)

> Cell phone apps are not only fun for playing games and keeping the kids occupied on a long car ride, they can also help in a disaster setting.

a.Life360

Life360 is a free app that allows access to a specific user's location and also contains a messaging service feature. Automatic alerts can notify the user when a loved one arrives or checks-in at specified destinations as well.

b.FEMA app

This application gives users access to preparedness tips such as survival advice, emergency checklists, and meeting locations that can be saved to a mobile device. It gives the user access to weather alerts from the National Weather Service tailored to a specific area.

5. Police Scanner

- > This device allows the user to hear all emergency communication between officials in the police, rescue, fire, respondent, military, and aircraft industries.
- > Although the user cannot broadcast on it, it does allow access to important information during an emergency situation.

6. Word-of-Mouth

- > When all else fails, power is out, internet access is scarce, and devices are ruined or have not been purchased prior, it comes down to survival instincts.

7. Landline telephone

- > Perhaps not the most popular option anymore, but having a landline telephone can be a life saver when access to a cellphone or other electronic device is limited or non-existence.
- > Depending on the type of technology supplied by your provider, it is possible that a landline telephone will work, even when internet access is down.

8. Satellite phone (Satphones)

- > Satellite phones are on the pricier side of the emergency devices spectrum, but are beneficial especially in remote territories where internet access is scarce at best.
- > Some satellite phones have coverage in all parts of the world due to Satphone's reliance on orbiting satellites for their functioning versus standard cell phone towers.

9. Amateur Radio (HAM Radio)

> This product is similar to a CB radio besides that it requires the user to be a licensed American Amateur Radio operator; thus giving it a bit more authenticity to the information that is being regulated across the air waves.

CRISIS COUNSELLING

- At different points in life most people experience some kind of crisis.
- A crisis is defined as a situation or event in which a person feels overwhelmed or has difficulty coping.
- A crisis might be caused by an event such as the death of a family member, the loss of a job, or the ending of a relationship.
- During such times people experience a wide range of feelings, and each person's response to a crisis is different and it is normal to feel frightened, anxious, or depressed at such a time.
- Crisis counseling involves providing support and guidance to an individual or a group of people such as a family or community during a crisis.
- The purpose of crisis counseling is to decrease emotional pain, provide emotional support, make sure that the person in crisis is safe, and help develop a plan for coping with the situation.
- Sometimes it also involves connecting a person to other community or health services that can provide long-term support.

Characteristics of Effective Crisis Counsellors

Effective crisis counsellors should possess characteristics such as:

- **Non-judgemental:** willing to listen all through to the client without casting judgement on those in crisis.
- **Non-Reactive:** does not react to client's outbursts or threats but be completely supportive when client shows strong emotions.
- **Specific Training:** receive specific skills and techniques in crisis counselling that are quite different from normal counselling.
- **Self-Awareness:** knows him/her self and empathise with clients without becoming personally involved or emotional when people who have gone personal experiences come to them.

Steps in Crisis Counselling

Step One – Define the Problem

- In this phase, we help others figure out what the problem is that we are trying to solve.
- During a time where fear and anxiety can be overarching and long-reaching, this phase is helpful in focusing people on exactly what is the specific issue they want to solve, or at least minimize/mitigate.

Step Two – Ensure Safety

- While this phase really colors the other steps in the process, it is important at the very beginning to emphasize to oneself and to others that the safety of the people around us is our overriding concern
- The safety of those that we lead, manage, and support must be paramount

throughout the entire process from both the minds of the people that are providing this leadership, and the minds of the people that they are helping.

Step Three – Provide Support

- During crisis intervention, it is important to communicate that one party is here to assist the other. The phrase used by the authors is, “Here is one person who really cares about you.”
- This demonstration of support has psychological factors of both reassuring the person and allowing them to enter a calmer state where they can help solve the problem with you, and it demonstrates the unconditional positive regard one party has for the other.

Step Four – Examine Alternatives

- As we know, anxiety is the enemy of creative thinking. During this challenging time, there will be new problems to solve in new ways, and, by helping figure out what the alternatives are, as leaders we can help our teams be as clear-headed as possible.
- This is best accomplished, however, by proceeding through the previous three phases to get everyone in the state of mind where the creative thinking can be as productive as possible.

Step Five – Make a Plan

- At this point, the alternatives have been weighed and the most likely approach has been decided upon.
- This should be done collaboratively with a group. In most cases, individual decisions are better informed when others are let in.
- A thorough weighting of the options usually arrives at best conclusions.

Step Six – Obtain Commitment

- In this phase, individuals are given assignments, and leaders need to make sure that they understand what is being asked of them.
- This is often a good place to ask staff to briefly summarize the plan back to you to make sure that it is understood and the appropriate nuance has been added.

Capacity Building: Concept – Structural and Non-structural Measures

- Capacity building is an ongoing process that equips officials, stakeholders and the community to perform their functions in a better manner during a crisis/disaster.
- In the process of capacity building, we must include elements of human resource development, i.e., individual training, organizational development such as improving the functioning of groups and organizations and institutional development.
- Some examples of capacity are: permanent houses, ownership of land, adequate food and income sources, family and community support in times of crisis, local knowledge, good leadership etc.
- Structural solutions include engineered solutions such as redesigning buildings and designing physical barriers to disaster events to reduce damage.
- Non-structural solutions include social solutions such as early warning, evacuation planning, and emergency response preparedness.

D1 Disaster management

Earthquake

Structural mitigation
Preparing ie engineered structures
Retrofitting of existing buildings

Non structural mitigation

- i. Enforcing Building codes
- ii. Public awareness
- iii. Reduce possible damage by secondary effects like fire, floods.



Disaster management

Landslide

Structural mitigation

- i. Drainage corrections
- ii. Engineered structures



Non structural mitigation

- i. Hazard mapping
- ii. Flood regulation
- iii. Awareness

Disaster Management

Floods

Structural Mitigation

Water shed management, making reservoirs,

Building on elevated areas

Natural water retention basins implementing flood control measures, dam burst.



Non structural Mitigation

Mapping of flood plains

Land use control

Flood forecasting and warning

FLOOD RISK REDUCTION STRUCTURAL MEASURES:

- Storage reservoir or basins to restrict overflow.
- Retarding basins to lower the flow offflooding
- Levees and floodwalls to confine floodwaters
- Improvement of channel capacity
- Some structural measures such as Flood Embankment, Channel Improvement, River Training, Coastal Embankment etc. to combat the flood sufferings.

FLOOD RISK REDUCTION NON STRUCTURAL MEASURES:

- Raised community areas with basic human needs.
- Home placed at higher elevations and built with flood resistant materials.
- Flood resistant infrastructure to continue critical services during floods.

Prepared by, Devsree M K AP, EKCTC Manjeri

For More Study Materials : <https://www.keralanotes.com/>

- Floodplain zoning
- Changes in cropping pattern
- Training and Public Awareness
- Institutional Arrangements
- Flood Warning System
- Local Disaster Action Plans

CAPACITY ASSESSMENT

- A Capacity Assessment is an analysis of desired capacities against existing capacities; this generates an understanding of capacity assets and needs, which informs the formulation of a capacity development response
- Assessing institutions and capacity is a central element of preparing and implementing any kind of support. It is also prerequisite for deciding if and how donor support to CD is feasible.
- The traditional instruments used by development partners have had a very mixed record of success. Sometimes the instruments are the problem.
- Sometimes the problem is the way in which the instruments are used the instruments at donors' disposal are simply not relevant to the situation at hand.
- It is both complex and delicate to assist others in developing capacity.

Why assessing capacity is important?

Assessing capacity serves as input in different processes and may support interlinked decisions on:

- Strategic and operational choices about overall levels focus areas, operational modalities and timing of aid. Weak capacity may imply that fewer funds can be effectively used, and that more focus on capacity development is required.

- Selection of key capacity issues to be included in the ongoing policy dialogue, in monitoring, or as indicators.
- Decision about if and how development partners can support capacity development (CD) processes of partners.

How to assess capacity?

- > There are many different ways to assess organisational or system capacity, and there are numerous tools and instruments that can be used to diagnose different aspects of organisational or system capacity.
- > There is, however, no single approach which can claim superiority or much less objectivity.
- > Nevertheless, there is a set of issues that should be kept in mind when considering capacity assessments:

Self-assessments are the best point of departure:

- Partner-lead assessments engaging staff can foster buy-in to subsequent CD processes, while external assessments often are perceived to be judgmental, disenfranchising those being assessed.

Avoid approaches which focus only on identifying “capacity gaps”

- According to a pre-defined normative model for “good capacity” or “best practice”.
- Such models tend to overlook the existing capacity assets which are likely to be a good starting point for future capacity development.
- Gap assessments tend to have a one-sided focus on weaknesses, and they tend to lead to predictable solutions: sending in TA to “fix” capacity problems and “close” or “bridge” capacity gaps. Such approaches rarely work.

Prepared by, Devsree M K AP, EKCTC Manjeri

Look beyond single organisations:

- Particularly in sector wide approaches, it is important not to stay inside the “tower” of e.g. a central ministry, and see capacity issues from that view only.
- Front-line service providers, central level cross cutting ministries, oversight institutions and non-state actors are likely to shape and condition the dynamics of CD.

STRENGTHENING CAPACITY FOR REDUCING RISK

- > Strengthening Capacities for Disaster Risk Reduction has been developed against the backdrop of the United Nations Development Programme's (UNDP's) longstanding commitment to supporting developing and high-risk countries through its programmes and services for capacity development and disaster risk reduction.
- > The objective of this component is to enhance the capabilities of the implementing entities in managing disaster risks, enhancing preparedness, and achieving resilient recovery.

1. Capacity building for disaster management:

To finance strengthening of the disaster management systems in the region by augmenting the capacity of stakeholders and institutions.

The activities will include:

- Capacity building of the state disaster management authority by strengthening its institutional and organizational structure, staffing, and resources and funding of training programs and regular drills for the emergency operations center staff and Disaster Management Officers at various levels;
- Strengthening the Disaster Response Force;

- Setting up a Decision Support System (DSS) and Emergency Operation Centers to integrate and analyze information from multiple sources in an integrated geo-spatial system.

2. Technical support for risk reduction and response preparedness :

To finance activities such as:

- Preparation of a Hydro-meteorological Resilience Action Plan focusing on extreme weather events to develop resilience solutions/recommendations and a robust, fail safe EWS in the region including optimum use of strengthened networks and facilities;
- River Morphology Study for some key rivers impacted by the disaster and to analyze and identify critical protective infrastructure works needed for river bank strengthening;
- Urban vulnerability assessment study with specific focus on seismic risk mitigation to undertake detailed urban vulnerability analysis and model various risks for effective mitigation planning and disaster response preparedness;
- Upgrading design guidelines and material specification for construction in seismic zones in order to carry out an update of current construction design standards and material specifications to align them with national and international best practices;
- Disaster Risk Financing and Insurance (DRFI) to work out options to increase the resilience of the PIE's financial response capacity to secure cost-effective access to adequate funding for emergency response, reconstruction, and recovery.

THANK YOU