

# DISASTER MANAGAEMENT

## MODULE 4

Prepared By,

**REMYA KRISHNAN R**

Asst Prof

Dept of CE

College of Engineering and Management Punnapra

### **Participatory Stakeholder Engagement**

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.



Stakeholder engagement helps organizations to proactively consider the needs and desires of anyone who has a stake in their organization, which can foster connections, trust, confidence, and buy-in for your organization's key initiatives. When done well, stakeholder engagement can mitigate potential risks and conflicts with stakeholder groups, including uncertainty, dissatisfaction, misalignment, disengagement, and resistance to change

When mapping your stakeholders, group them into one of the four categories:

- **Low Interest & Low Influence**

For stakeholders with low interest and low influence, one-way communication of essential information will likely be sufficient in most instances.

- **Low Interest & High Influence**

This group is more *influential* than the low-low grouping. Although they still have a low interest in regular communication from your organization, it's important to monitor this group regularly, keep them informed of critical information, and anticipate any interests or needs they may have.

- **High Interest & Low Influence**

This group is more *interested* than the low-low grouping. Although they may not be as influential as other stakeholders, you may wish to have regular, robust communication and consider two-way communication with this highly interested stakeholder group.

- **\*High Interest & High Influence (these are your KEY stakeholders)**

This group is both *interested* and *influential* and will require more resources to engage with effectively. This is your priority grouping of stakeholders who will require regular, robust, two-way communication tactics to keep this group satisfied.

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.

- **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 supportive 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.

- **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.
- **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.

## **Disaster communication**

Communication during and immediately after a disaster situation is an important component of **response and recovery**, in that it connects affected people, families, and communities with first responders, support systems, and other family members. Reliable and accessible communication and information systems also are.

## **The importance of communications**

### **Emergency Preparedness**

**There are real benefits to being prepared:**

- 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 (flood proofing, elevating a home or moving a home out of harm's way, and securing items that could shake loose in an earthquake) and sometimes avoid the danger completely.

**The need to prepare is real:**

- Disasters disrupt hundreds of thousands of lives every year. Each disaster has lasting effects, both to people and property.
- If a disaster occurs in your community, local government and disaster-relief organizations will try to help you, but you need to be ready as well. Local responders may not be able to reach you immediately, or they may need to focus their efforts elsewhere.
- You should know how to respond to severe weather or any disaster that could occur in your area - hurricanes, earthquakes, extreme cold, flooding, or terrorism.
- You should also be ready to be self-sufficient for at least three days. This may mean providing for your own shelter, first aid, food, water, and sanitation.

**Many large scale disasters could impact the availability of resupply or inclement conditions could prevent people from traveling safely to a store. For that reason, we greatly encourage citizens to have a larger supply of food, water, and medicine.**

The 72 Hour Kit

There are many types of disasters and emergencies: fires, floods, earthquakes or man-made disasters. You and your family may need to survive on your own after an emergency. Having sufficient supplies such as food, water, medicine and emergency essentials is important. Local officials and relief workers will be on the scene after a disaster but they cannot reach everyone immediately. You could get help in hours or it might take days. It is estimated that after a major disaster, it may take **up to three days** for relief workers to reach some areas.

Additionally, basic services such as electricity, gas, water, sewage treatment and telephones may be cut off for days or even a week, or longer. Your supplies kit should contain items to help you manage during these outages.

At a minimum, all individuals and families should have at 72-Hour Kit (Basic Disaster Supplies Kit). Try to assemble your kit well in advance of an emergency. You may have to evacuate at a moment's notice and take essentials with you. You will probably not have time to search for the supplies you need or shop for them.

The six basic groups of disaster supplies your should have in your home

- Water
- Food
- First aid supplies
- Clothing, bedding and sanitation supplies
- Tools
- Special items

Keep the items that you would most likely need during an evacuation in an easy-to-carry container. Possible storage containers include a large, covered trash container, a camping backpack, or a duffle bag.

### Basic Disaster Supplies Kit

The following items are recommended for inclusion in your basic disaster supplies kit:

- A three-day supply of non-perishable food suitable for your family's size
- A three-day supply of water – one gallon of water per person, per day
- Portable, battery-powered radio or television and extra batteries
- Flashlight and extra batteries
- First aid kit and manual
- Sanitation and hygiene items (moist towelettes and toilet paper)
- Matches and a waterproof container
- Whistle

- Extra clothing
- Kitchen accessories and cooking utensils, including a can opener
- Photocopies of credit and identification cards
- Cash and coins
- Special needs items, such as prescription medications, eye glasses, contact lens solution, and hearing aid batteries
- Items for infants, such as formula, diapers, bottles, and pacifiers
- Other items to meet your unique family needs

Living in a colder climate as we do, you must think about warmth. It is possible that you will not have heat. Think about your clothing and bedding supplies. Be sure to include one complete change of clothing and shoes per person, including:

- Jacket or coat
- Long pants
- Long sleeve shirt
- Sturdy shoes
- Hat, mittens, and scarf
- Sleeping bag or warm blanket (per person)

### Maintaining your disaster supplies kit

Just as important as putting your supplies together is maintaining them so they are safe to use when needed. Here are some tips to keep your supplies ready and in good condition:

- Keep canned foods in a dry place where the temperature is cool.
- Store boxed food in tightly-closed plastic or metal containers to protect from pests and to extend its shelf life.
- Throw out any canned goods that become swollen, dented, or corroded.
- Use foods before they go bad, and replace them with fresh supplies.
- Place new items at the back of the storage area and older ones in the front.

- Change stored food and water supplies every six months. Be sure to write the date you store it on all containers.
- Re-think your needs every year and update your kit as your family needs change.
- Keep items in airtight plastic bags and put your entire disaster supplies kit in one or two easy-to-carry containers, such as an unused trash can, camping backpack, or duffel bag.

## Communication Methods in Disaster Setting

### **1. Social Media**

#### a. Facebook Safety Check

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.

#### b. Google Crisis Response

This is resource page provides tools, information and interactive platforms for both emergency responders and those in need of assistance. It includes access to Google Public Alerts (emergency alerts), Person Finder, Crisis Map, Docs & Spreadsheets, Fusion Tables, Google Earth and Google Sites. Each has their own special application and usage to assist for better communication methods in time of need.

### **2. 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. Users can retrieve information on Disaster Recovery Centers, find locations of the nearest shelters and apply for assistance.

### **3. Cell phone**

Mobile networks quickly become overloaded due to the massive increase of users and unexpected surge that follows a disaster. Be sure not to discount text messaging and e-mails as a communications method as they work on a platform that is parallel to cell phones. Therefore, even if you cannot reach a person by calling them and the line is busy, a text or e-mail message may still be able to reach the specified destination.

### **4. 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-existent. 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. Landline plans vary, but are surprisingly on the cheaper side and are well-worth the investment if for nothing else, peace of mind.

### **5. 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.

## **6. 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. These are beneficial to have among emergency responders in the field as a quick way to communicate with each other without clogging up cell phone lines.

## **7. Citizens Band Radio (CB 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. Because it is open for use for both business and personal use, it is a good source of general information.

## **8. 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.

## **9. 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.

## **10. 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. During a disaster setting it is important to have a plan in place beforehand and practice that plan prior to a disaster occurring. If you do

not have a plan in place, try your best to not become isolated and stay together in a group to avoid being misplaced or lost.

## **Barriers in Disaster Situations**

Communication problems are pervasive in many disaster situations. Nearly all the case studies of disasters occurring in the last 30 years describe communication problems of some sort.

The general issues are:

- 1) External communication with the public (covered in another post);
- 2) Internal communication among emergency response personnel and their agencies, discussed here.

### **Technical problems are common**

Despite massive technological changes in recent years, communication problems persist: including system failure, system overload, and incompatibility between communication systems used by different agencies. Some of the specific technical problems identified in recent case studies are:

- Failure of the wired telephone system, due to explosion, etc. (experienced by police, fire-fighters and military in the Toulouse ammonium nitrate disaster, September 2001)
- Overload of the telephone system due to insufficient lines (experienced during the Weybourne leaking container ship incident, Norfolk, May 1991)
- Saturation of the mobile phone network (Toulouse, 2001)
- Out-of-range radio communications (experienced by police during the Nypro (UK) Ltd. Chemical factory explosion, Flixborough, June 1974)
- Incompatible radio systems, such as lack of common communication frequencies experienced by fire, police and coastguard during the Weybourne (Norfolk) leaking container ship incident, May 1991

## **Strategies for overcoming technical problems**

General strategies recommended for overcoming technical problems in disaster situations are:

1. redundancy of communication channels can be an important strategy, so that if one communication technology fails or becomes overloaded, another channel can be used to maintain communications (e.g., substituting fax for telephone)
2. providing a separate communication network for crisis management.

Good use of electronic communication systems can have additional importance in certain CBRN incidents because it reduces the risk of disease transmission or contamination through face-to-face contact

## **Most problems are a complex mix of technological and human factors**

However, most communication problems are created from a complex mix of technological and human factors. For example, maintaining adequate communication systems can be more difficult if reliant on voluntary work by technicians and engineers [20]. Improved training in communication systems for emergency personnel can make for more efficient system use [24]. Communication hubs such as control centres and casualty centres can become overwhelmed by the number of incoming communications, insufficiency of communication channels, and insufficient staff training and preparedness. This increases stress and in extreme cases could lead to organizational failure

Disaster situations present conditions specific to disaster situations in general as well as features unique to the specific disaster. For example high information uncertainty and limited information control are features of disaster situations in general which create challenges for crisis communication. Communication dynamics within teams, across organizational levels and between different agencies, under disaster conditions all need to be better understood .Communication technologies used in disaster management each have different features and properties that in turn affect communication dynamics .

## **CRISIS COUNSELING**

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. 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.

Crisis counseling can be linked to health education if it is used to increase knowledge of how to avoid or cope with a crisis in the future. It can also be used to change people's attitudes and beliefs about people in crisis, and to provide people with information about help available in their community. Public health professionals, for example, might educate a community on how to cope with a natural disaster such as a hurricane or an earthquake.

Crisis counseling is also related to health promotion. People can be taught useful skills that will help them to anticipate and cope with a crisis. Skills, information, and support services gained through crisis counseling can also help a person or a group of people to improve their health and quality of life. Crisis counseling can also be tied to health promotion through the development of health-related public policy and supportive environments. For example, public health professionals might create a policy to build crisis counseling centers or to develop a peer counseling program in high schools or colleges.

A valuable tool for public health, crisis counseling has several advantages over other types of counseling or health services. It is relatively low-cost and simple to provide, and it is flexible and easy to learn. A wide variety of health professionals, including doctors, nurses, psychologists, and social workers, can be taught to help people through the application of crisis counseling techniques. Crisis counseling services can also be provided in a wide variety of places or settings,

including hospitals, community clinics, military bases, and police stations, as well as through telephone-based services. New technologies have also created the possibility of Internet-based crisis counseling.

Such services provide an important link between a community and the health care system. By using these resources people can sometimes get the help they need without using more expensive health care services, and they can often take advantage of twenty-four-hour crisis services. People with chronic health problems such as schizophrenia or depression can also get help from twentyfour-hour services when their physician or psychiatrist is not available. Many communities have developed peer counseling programs for specific groups such as adolescents and senior centers.

Public health professionals who offer crisis counseling have been faced with a growing variety of issues and clients. Many communities are home to an increasing number of people from a wide variety of cultural and ethnic backgrounds. There are also more older people in society than ever before. These trends have increased the number of incidents of elder abuse, hate crimes, and cultural clashes. These types of events, along with issues such as AIDS (acquired immunodeficiency syndrome), have increased the workload of crisis counselors. The field has also grown with the development of "first response" programs. Police officers, firemen, paramedics, and others are being trained to deliver on-the-spot crisis counseling. People working in public places such as stores and airline terminals are also learning how to do crisis counseling in order to deal with unhappy or violent customers. These types of programs only add to the importance of crisis counseling for individuals, families, and communities.

### crisis intervention strategies as having six basic steps

**Step One** – Define the Problem. In this phase, we help others figure out what the problem is that we are trying to solve. Very specifically, what is it that we are trying to create or prevent? 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.

### **Where Crisis Counselors Work??**

Crisis counselors can work in a variety of settings including:

- Telephone crisis counseling centers
- Online/live chat crisis counseling forums
- Mental health clinics
- Humanitarian aid organizations

- University counseling centers
- Nonprofit community centers
- Private practice

## **CAPACITY BUILDING**

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. At the national level, The National Institute of Disaster Management (NIDM) is the capacity building arm and the States have disaster management cells in the State Administrative Training Institutes performs the function of capacity building for effective and efficient disaster management. There are a number of other training institutes which are engaged in training and capacity building in the area of disaster management.

### **Role and Responsibilities**

- ✦ To develop parameters/guidelines under which NIDM has to function and correspondence relating thereto. Preparation of NIDM guidelines Matters relating to Capacity Building Grant under Finance Commissions.
- ✦ International Co-operation including preparation/finalization of MoUs in the field of DM with various countries, and its implementation, visit of foreign delegation for bilateral meetings, etc.
- ✦ To coordinate with International Organization such as UNDRR, UNDP, UNICEF, UNOCHA, UNFPA, AHA Centre, IORA, BRICS, SCO, BIMSTEC, ADPC, ADRC, G20, World Bank, SAARC, ASEAN, etc.
- ✦ Nomination of officers of NDMA as guest lecturer or participant for attending International and National Workshops / Seminars / Training / Meetings, Forums / etc.
- ✦ Implementation of various projects of Capacity Building on Disaster Management (DM), DRR, Disaster Response in collaboration with State Govts/UTs and CDM, LBSNAA, Mussoorie.
- ✦ Monitoring of implementation of the National Disaster Management Guidelines on School Safety Policy – 2016 in all schools of India
- ✦ Monitoring of DM Exhibition & Mock Drills in all Schools of AMRUT Cities (500).



- ✦ Processing of proposals of partial financial support for organizing events on disaster related subjects receives various Departments of GoI/State Govts. and Institutions such as IITs, JNU, FICCI, CII, TIFAC and NGOs etc
- ✦ Processing of proposals for extending NDMA logo for organizing events on disaster related subjects support
- ✦ Parliament Questions/RTI Matters/VIP references/reports & returns, budget, ✦ Training part of NDRF
- ✦

### **Structural and Non-Structural measures**

**Structural measures** are any physical construction to reduce or avoid possible impacts of hazards, or the application of engineering techniques or technology to achieve hazard resistance and resilience in structures or systems. Non-structural measures are measures not involving physical construction which use knowledge, practice or agreement to reduce disaster risks and impacts, in particular through policies and laws, public awareness raising, training and education.

Annotation: Common structural measures for disaster risk reduction include dams, flood levies, ocean wave barriers, earthquake-resistant construction and evacuation shelters. Common nonstructural measures include building codes, land-use planning laws and their enforcement, research and assessment, information resources and public awareness programmes. Note that in civil and structural engineering, the term “structural” is used in a more restricted sense to mean just the loadbearing structure, and other parts such as wall cladding and interior fittings are termed **“nonstructural”**.

### **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 (equipment, technical assistance, training and knowledge transfer) have had a very mixed record of success. Sometimes the instruments are the problem (they may simply be the wrong answer, based on a poor diagnosis of needs and options). Sometimes the problem is the way in which the instruments are used (supplydriven by development partners rather than driven by sufficient domestic demand. Finally, it is sometimes the broader circumstances that are not conducive for CD) 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.

EuropeAid has prepared specific guidance on issues to consider when preparing TOR for capacity assessments, available [here](#). Other approaches are also described hereunder.

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 predefined 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.
- **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.

**Timing, modality and scope of capacity assessments should be carefully considered.** As noted, expert or TA-driven capacity assessments made on the insistence of donors and subject to donors’ calendars and deadlines is a particularly poor point of departure for home-grown CD processes. Depending on the nature of the organisation in question, it is often best to keep things simple to begin with and to consider more elaborate exercises only when participants are comfortable with the process. Clarity about the commitment to change and the capacity to lead and manage change may in some cases be a sufficient starting point, while a participatory, more comprehensive assessment process can come later.

## **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:

i. 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; ii. strengthening the Disaster Response Force; iii. 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:

i. 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; ii. 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;

iii. 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; iv) 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;

v) 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.