



Community based disaster risk reduction planning tool

Local level risk assessment of natural hazards and development
of action plans for reducing the impacts of disasters

inter
cooperation


Swiss Foundation for Development and
International Cooperation

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List of abbreviations

CBO	Community Based Organisation
CP	Cluster Platform
CRiSTAL	Community-based Risk Screening Tool, Adaptation and Livelihood
DAE	Department of Agricultural Extension
DRR	Disaster Risk Reduction
FFD	Farmer Field Day
GO	Government Organisation
LEAF	Livelihoods, Empowerment and Agroforestry, a project of Intercooperation Bangladesh
LGED	Local Government Engineering Department
NGO	Non-governmental Organisation
TBA	Traditional Birth Attendants
UDMC	Union Disaster Management Committee
UP	Union Parishad
UzP	Upazilla Parishad
WDB	Water Development Board

1

Introduction

Why do we need Disaster Risk Reduction ?

Natural hazards are nothing new to humanity. Floods, droughts, earthquakes, and the like have been accompanying humans from the beginning. However, a natural hazard in itself does not cause a disaster; a disaster results when a natural hazard hits a vulnerable, exposed and insufficiently prepared community.¹

Disasters are now occurring at a scale and frequency that is causing unprecedented impacts worldwide. One simple reason is that the world's population is higher than ever before. However, scientific evidence also indicates that weather-related hazards are becoming more frequent and intense due to the impact of climate change.

People in developing countries are particularly vulnerable to disasters as they often are more exposed, have lower coping capacities and are less prepared. Furthermore, they are heavily dependent on climate-sensitive primary industries – notably agriculture, forestry or fishery. Hence, disasters jeopardize development processes and can indeed eradicate years of local development efforts in a few minutes or hours. Therefore, disaster risk reduction (DRR) has to be seen as an integral part of the development efforts.²

Geographical location and land characteristics make Bangladesh, where this tool was developed, one of the most disaster prone countries in the world. The country is exposed to a variety of recurrent natural hazards, including floods, cyclones, droughts and riverbank erosion, which pull down development initiatives and progresses.

The concept of DRR

DRR is a conceptual framework intended to systematically avoid (prevent) and limit (prepare/mitigate) disaster risks with regard to losses in lives and the social, economic and environmental assets of communities and countries.³ In general, a risk is defined as

$$\text{Risk} = \frac{\text{Hazard X Vulnerability}}{\text{Capacity}}$$

“Natural” disasters are not purely the result of natural events, but are the product of the social, environmental, political and economic context in which they occur. Addressing DRR through a livelihood approach, vulnerability and capacity can be analysed according to the six different livelihood assets – natural, physical, social, human, financial and political. These assets together determine people's resilience.⁴ Resilience is very specific to the community, to households and indeed to individual women and men.



Figure 1: DRR should be seen as a cycle and not as a single intervention.

1. Based on the UNISDR Terminology on Disaster Risk Reduction (2009). See <http://www.unisdr.org/eng/library/lib-terminology-eng.htm> [accessed 18.10.2009]
2. Clot, N., Carter J. (2009). Disaster Risk Reduction: A Gender and Livelihood Perspective. Info Resources. Focus 2/09. http://www.inforesources.ch/pdf/focus09_2_e.pdf [accessed 18.10.2009]
3. The introduction to DRR is based on Info Resources Focus 2/09. See footnote 2.

Successful DRR must be in place well before a disaster strikes; in other words, it is crucial to shift the focus away from merely responding to disasters, and to focus particularly on disaster prevention and preparedness activities. Similarly, DRR is not a single intervention, but a repeating cycle of adapted interventions, as shown in Figure 1.

On this basis, DRR can be defined as

$$\text{DRR} = \frac{\text{Hazard X Reduce vulnerability}}{\text{Increase Capacity}}$$

The integration of DRR into the local livelihood activities will ensure that the communities and households will internalise hazard and risk analysis, consider risk and vulnerability as well as opportunities while determining their livelihood strategies. Through adopting this approach, Intercooperation addresses the root causes of disasters, namely reducing the overall vulnerability, increasing capacity and thus strengthening the resilience of vulnerable communities.

Some disaster risk reduction principles

- Give priority to prevent the cause or impact of a disaster rather than to provide emergency relief. Give thrust on the development of initiatives that increase preparedness and reduce the dependency on relief;
- To address disaster, depend on local capacity instead of depending on external support;
- Give priority to organised local support rather than depending on a high number or uncoordinated external support initiatives;
- Give priority to community wide preparedness interventions rather than individual preparedness activities;
- Give emphasise to permanent measures rather than only to temporary measures.

Background and use of the tool

Intercooperation developed this DRR planning tool in the frame of the the Livelihood, Empowerment and Agroforestry project (LEAF), financed by the Swiss Agency for Development and Cooperation (SDC). LEAF has the objective to improve the livelihoods of poor and extreme poor rural households through developing their human and institutional capacities for accessing and using social and economic opportunities. The interventions of LEAF target mainly cluster platforms (CPs) which are formed by several community based organisations (CBOs), usually within one ward.⁵ In each cluster platform, every CBO is represented by two of its members. On a union level, CPs organise themselves in CP networks.

This planning tool can be considered as a supplementary element to the regular planning exercise of the CBOs. However, it can also be used as a separate tool for planning DRR initiatives. The tool has been developed based on the above mentioned organisational and administrative structure, but it can easily be adapted to other contexts.

The tool has been designed for practitioners working with rural communities. It is seen as a complementary tool to include aspects of DRR in the regular livelihoods activities. In order to be used by the communities, the tool has to be introduced to them by field staff familiar with the most important PRA tools and participatory practices, with the goal to hand over the planning process to community facilitators.

In the framework of LEAF, Intercooperation developed the community based disaster risk reduction tool with a view to mainstream DRR in its livelihoods and governance programmes. The basis for the tool is the Community-based Risk Screening Tool, Adaptation and Livelihood (CRiSTAL)⁶ and the Community Risk Assessment and Risk Reduction Action Plan guidelines developed and used by the Government of Bangladesh.⁷

Overall goal

The community based disaster risks reduction planning is designed to build the capacities of communities and local authorities to assess disaster risks and vulnerabilities as well as to mainstream them into community-level projects and activities.

The direct output of the planning tool is a DRR activity plan for the communities, while awareness raising and increased capacities at the local level are additional results of the whole process.

4. "Resilient societies are those able to overcome the damage wrought by the occurrence of natural hazards, either by maintaining their social fabric or by accepting marginal or greater change in order to survive." Gaillard J.-C., Le Masson V. (2007). Traditional Societies' Response to Volcanic Hazards in the Philippines. Mountain Research and Development 27(4): 313-317. <http://www.bioone.org/doi/abs/10.1659/mrd.0949> [accessed 18.10.2009]

5. A ward is the smallest territorial unit in Bangladesh; nine wards form a union, the lowest administrative unit of the government.

6. CRiSTAL seeks to help project planners to analyse the impacts of climate change and disasters at the livelihood level. For further information and to download the tool, see <http://www.cristaltool.org>

7. Government of the People's Republic of Bangladesh. A Facilitator's Guideline for Community Risk Assessment and Risk Reduction Action Plan. Directorate of Relief and Rehabilitation. Ministry of Food and Disaster Management. For more information, see <http://www.cdmp.org.bd/>.

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Overview

Process

The exercise follows three phases. In a preparatory phase, a schedule for the exercise is developed and necessary information for the exercise collected and compiled. The main phase consists of three steps, where collected information is validated, the hazards and impacts analysed and an action plan developed, including the identification of prevention and preparedness measures. Finally, in a follow up phase, the plans of all CPs in one union are compiled and presented to the concerned government bodies with a view to include the communities' priorities into the local government's activity plan. In the subsequent year, previous year's plan will be revisited, ongoing activities will be taken over in the new plan and collected information will be checked on its actuality.

Figure 2 gives an overview on the process, the participants and the time needed for every phase.

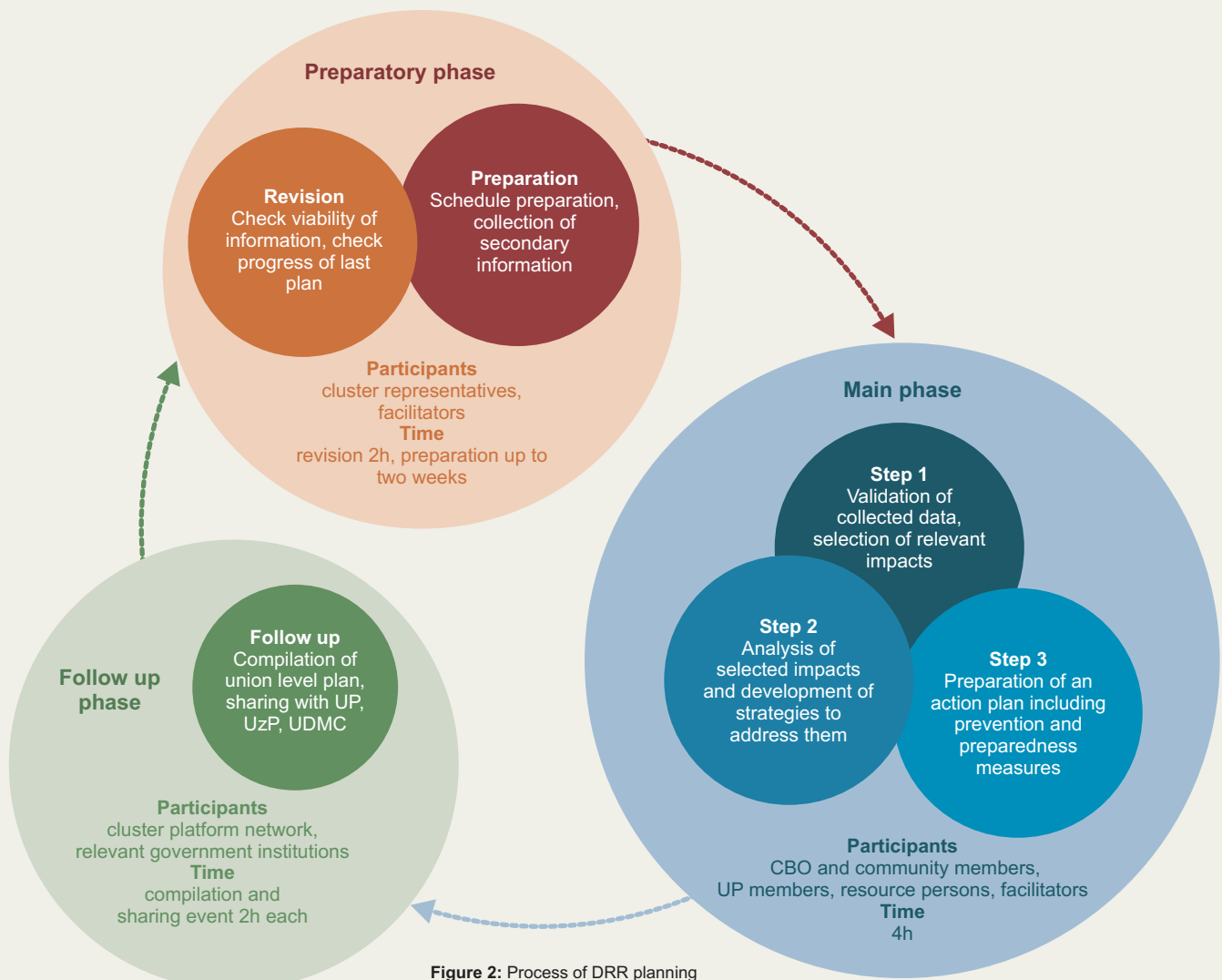


Figure 2: Process of DRR planning

Participants

The preparatory phase of the exercise will be conducted by the CBO members representing the CBOs in the CP (cluster representatives). For the main phase, the CP will invite CBO and community members, including the most vulnerable (disabled, women, landless, and extreme poor). The CP will also invite union disaster management committee (UDMC)⁸ members and ward representatives of the respective union. Participation of a significant number of female and extreme poor in the exercise should be ensured. The follow up phase will be conducted by the representatives of the cluster platform network of the respective union, inviting representatives from relevant government institutions for the sharing event.

If required, the CP can invite resource persons from neighbouring communities and from government organisations, non-government organisations and research institutions to assist the communities with their knowledge on the local situation regarding hazards and their impacts. Resource persons could be elderly people knowing the region and hazards, representatives from government departments working on DRR, representatives from government extension agencies or representatives from research institutes working on DRR and adaptation measures like adopted plant varieties or hardware⁹ protection technologies. They should only contribute through providing relevant information while they should not influence decision making.

The exercise should be led by one community facilitator and one member of the UDMC. Initially, when the tool is newly introduced, the project's field facilitator can take the responsibility as key facilitator for the exercise, while the respective community facilitator and the UDMC member will perform as co-facilitators. However, this responsibility should be gradually handed over to the respective community facilitator and UDMC member. It is particularly important to select an equal number of male and female facilitators for the exercise.

Time frame

The preparatory phase can take considerable time, depending on the amount of secondary information to be collected and the availability of the information. Two weeks should be planned for this phase. The main phase of the exercise will require about 4 to 5 hours. Depending on the capacity and time convenient for the participants, the CP can implement the exercise in a maximum of two days. The gap between these days should be limited to a maximum of 3 days.

If the resource persons are not able to participate in all the sessions, their participation should be ensured at least in the main exercise.

Equal importance should be given to the methodological aspects and to the expected results of the exercise, respectively. Neither should methodological considerations hinder the inclusion of important aspects nor should the steps of the exercise be changed unnecessarily.

The follow up phase will take around 4 hours. 2 hours for the preparation of the compiled action plan and two hours for the sharing event with the local government institutions.

Table 1 gives an overview on the participants present, the time frame and resources needed for each phase.

Table 1: Overview on DRR planning process.

Phases	Participants	Necessary time	Resources needed
Preparatory phase	Cluster representatives	One to two weeks	Means to travel to different sources of information. Resources to perform participatory exercises (e.g. board, brown papers and pens).
Main phase	CBO members, community members, UDMC members and ward representatives, resource persons (if necessary)	About 4 hours on maximum two days	Resources to perform participatory exercises (e.g. board, brown papers and pens).
Follow up phase	CP representatives	Compilation of union based plan: about 2 hours Sharing with UP, UzP, UDMC: about 2 hours	Resources to perform participatory exercises (e.g. board, brown papers and pens). Means to travel to UP or UzP headquarters. Availability of UP, UzP, and UDMC representatives.

8. The UDMC is a government body located at the union parishad, the union level government.

9. In relation to DRR, hardware means all physical structures preventing or mitigating disasters; software means all other activities including awareness raising, skills development and coordination.

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Preparation phase

Introduction

The collection of information related to hazards and their impacts is a basic precondition for a successful planning of risk reducing interventions. They build the basis for decisions regarding the prioritisation of impacts as well as preparedness and prevention activities.

Purpose

The purpose of the preparation phase is to introduce the tool to the cluster representatives, to plan the whole exercise and to collect information regarding the occurring hazards and their impact on the population. The information will be validated by the community and used during the main phase. To prepare the main phase, the preparation phase will ultimately lead to the compilation of Table 5.

Participants

This phase is conducted by the cluster representatives. The community facilitator and the UDMC facilitator have the lead.

Time frame

This phase can take considerable time, depending on the availability of data. Since it is sometimes difficult to collect data from different public and private sources, it should be planned carefully, what data needs to be collected. Normally, this phase takes up one to two weeks.

Process

In a scheduled cluster meeting, the facilitators present the objectives and the expected results of the exercise to the cluster representatives so that they can get a clear understanding of their role before and during the exercise.

The CPs of the same union should share the responsibility of the collection of information and generate information together. Information collected by one CP could be used by other CP(s) of the same union. In such a case, the union network of CPs plays a coordination role in sharing responsibility and sharing of information between clusters.

The cluster representatives develop a schedule of the activities related to preparatory works and the main exercises according to Table 2 .

Table 2: Schedule for preparatory work and main exercise

Description of activity	Date of implementation	Responsibility
Preparatory phase		
Main phase		
Step 1: Validation of collected data, selection of impacts		
Step 2: Analysis of impacts and development of strategies to address them		
Step 3: Preparation of an action plan		
Follow up phase		

Table 4: Overview on general information to be collected in the preparatory phase.

Type of information and use	Possible sources	Methodology of presentation	Remarks
Occurring hazards and their impacts in the last 5 years Use: to identify the risks for the community	Secondary information from UP, Water Development Board (WDB), Department of Agricultural Extension (DAE)	Hazard map, hazard Venn diagram	Information on hazards and impacts include their frequency of occurrence and severity of impact, i.e. area of impacts, number of people affected, amount of assets lost, crop damaged, etc.
Cropping pattern, crop cultivated in different season, area coverage by different crops Use: to estimated the impact and severity of the hazards	Secondary information from DAE	Crop calendar	
Population, their distribution and social status Use: to prioritise interventions targeting the most vulnerable part of the population	Secondary information from UP; upazilla family planning office; upazilla admin office	Social mapping	Population by different age group, by gender and social status
Main income/livelihood strategies and their spatial distribution Use: to assess the impact of hazards and specify interventions	Secondary information, focus group discussion	Social mapping, livelihoods seasonal calendar	Subsistence activities and economic activities
Local and other known strategies to reduce disaster risks Use: to improve already practiced intervention strategies	Secondary information from UP and UzP, key informant interviews, focus group discussions	List or table	This information should contain possible activities
DRR projects and development initiatives active in the region Use: to evaluate possible synergies and support	Key informant interviews, mainly on UP and UzP level or with other present GOs and NGOs	List or table	This information should include if resources for DRR activities are active from these initiatives.
LGED Thana Base Map Use: as a base for the social and hazard maps.	Local Government Engineering Department (LGED)		This map should only be collected if possible and available at the LGED office. It is not strictly necessary for the exercise.

Step 3: Compilation of information for the presentation to the community

- To better visualise the information collected, the cluster representatives will develop different maps and diagrams, e.g. social map, hazard map, livelihood seasonal calendar, hazard Venn diagram, etc. For an introduction to these maps and diagrams, see Annex 1.
- As a preparation for the main exercise, the cluster representatives identify the hazards and impacts that are relevant for the community. On the basis of the information they collected in the preparatory exercise, they fill out Table 5. It is not mandatory to fill all columns of the table but as much information as possible should be presented, both quantitative and qualitative. In Annex 2, one example is presented for better understanding.
- If the numbers of hazards is more than 5, only those hazards which create severe impacts should be considered. For each hazard, the cluster representatives will identify a maximum of five important impacts. If more than five impacts are identified for each hazard during the discussion, they should choose the most important ones before filling in the rest of the table. To organise the discussion within the limited time period, the number of impacts (in column 2) should be limited to a maximum 15 (for all hazards). To chose the most important impacts, criteria like type of impact and degree of losses, number of households affected, damage of physical facilities, damage by geographical coverage, and social impact due to disaster should be considered, which also determin the severity of the impacts.

Table 5: Hazards and impacts

Hazards	Impacts	Severity of incidence (High, Medium, Low)	Time of occurrence and frequency	Which and how many households affected	Other relevant information



Mapping exercise with representatives of the community.

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Main phase

Introduction

This is the main phase of the DRR planning. In this step, the community members will identify the most important impacts and disasters and develop a plan accordingly. It is important that the present people represent the broad community as good as possible.

Purpose

The purpose of this step is to bring the community together and reflect on the hazards and disasters they face. Based on the discussion lead by the facilitators, an action plan on how to reduce disaster risks to the community will be developed.

Participants

The participants should as good as possible represent the whole population of the ward. The following composition of the group is proposed: 4-5 members of each CBO, 4-5 other community members, 2-4 disabled, 2-3 from union parishad standing committee and 2-3 resource persons, members of governmental organisations, NGOs or from relevant private sector actors. Participation of a significant number of female and extreme poor in the exercise should be ensured. The session is facilitated by the community facilitator and the UDMC facilitator.

Time frame

This phase requires about 4-5 hours. It can be implemented in a maximum of two days, whereas the gap between these days should be limited to a maximum of 3 days.

Step 1: Validation of collected data, selection of impacts

- After the exchange of greetings and introduction of the group to the exercise, the facilitator presents the work of the preparation phase and the completed table (Table 5). In an open discussion, the group validates the data based on their own experiences. Where necessary and conclusive, the table can be adapted.
- Based on the hazards and impacts identified in this table, the group defines the impacts that are most pressing for them. Subsequently, the group decides which impact could be tackled with short term, medium term or long term interventions. Short term activities could be single events such as awareness rising whereas medium and long term activities are those who require repeated or continuous engagement such as maintenance work. All the interventions have the goal to reduce the impact of the disaster in the long term.
- The result of the definition can be presented according to Table 6. In some cases, the timeframe of engagement with a specific impact cannot be assessed at this stage. In such cases, the period could be measured after the analysis of specific impact in step 2.
- The group chooses 6-7 impacts to include them in the action plan. The group should give the greatest importance to those impacts which could have a positive impact on the biggest number of households, specifically those of extreme poor/poor, women, children and disabled. Existing resources, opportunities and facilities should be considered during the selection.

Table 6: Prioritisation of impacts and timeframe

Name of identified impact	Period to tackle the issue*		
	Short term (1 yr)	Medium term (1-3 yr)	Long term (3-5 yr)

* tick the respective column

Step 2: Analysis of impacts and development of strategies to address them

- The group analyses the impacts chosen in the first step filling in Table 7. The results from the information collected in the preparatory phase should be used as a basis for the analysis.
- Following the analysis, one or more strategies are planned for each issue. For the planning, consultation with present resource persons and consideration of existing initiatives and opportunities are important.
- During the analysis of existing initiatives (in the third column) aspects like effectiveness, cost, sustainability, simplicity, etc. should be discussed.

Table 7: Analysis of impact

Selected impacts	Losses and damages related to the impact	Existing strategies for addressing the impact	Strategies to be followed in future

Note: Present both qualitative and quantitative information in column 2 and 3

Step 3: Development of an action plan

- Based on the strategies developed in the previous step, the group elaborates an action plan for the next year according to Table 8. One example is presented in Annex 2. Detail activities and budget can alternatively be developed by a small task force at a later stage. The activities under a specific initiative/project should follow the DRR Principles (see box on page 6).
- For the medium and long term issues, also the steps for the subsequent year(s) should already be planned. Where needed, the maintenance work should be planned for the following years, including the procurement of necessary materials or finances. The finances for the maintenance of a risk reducing installation could for example be taken from a common income generating activity or business.
- The action plan should include the development of a general plan of behaviour for the whole community during and after a disaster. Each community member should know what steps are necessary in case of an emergency to reduce the impact of the disaster. This plan includes for example evacuation plans to the shelters, distribution of emergency food reserves, etc.

Table 8: Format for action plan

Project/initiative/strategy	Major activities	Time of implementation (month)	Place of implementation	Estimated cost	Sources of resource and support		Responsibilities
					Own	External	

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Follow up phase

Introduction

As a follow up, the communities will compile a single plan for the whole union. This plan will then be shared with the authorities in order to include the communities' priorities as far as possible in their activities.

Purpose

The purpose of this step is to include the relevant authorities in and get their support for the DRR activities and interventions of the communities. The authorities are asked to consider the priorities set by the communities.

Participants

Every cluster is represented by the cluster representatives. From the local government, the UzP, the UP as well as UDMC members should be invited. Other relevant stakeholders (NGOs, private sector) can also be invited.

Time frame

The compilation and sharing require about 2 hours each.

After the completion of the planning process by all the clusters in one union, the cluster leaders of the respective union will compile the action plans of all the clusters. This compiled plan will be shared with the UDMC, union parishad, and government organisations and NGOs at upazilla level. The purpose of this presentation/sharing is to create understanding and start negotiations with these institutions and organisations about their contribution for the implementation of the plan.

Where possible, the clusters should take support from the governance projects or organisations (e.g. SHARIQUE)¹⁰ for organising such sharing workshops or meetings and negotiations.

10. SHARIQUE is the local governance programme of Intercooperation Bangladesh

Annexes

Annex 1

In this Annex some of the most important PRA tools and their use in the context of DRR planning are described. The information has been adapted from the GoB CRA guidelines .¹¹

Social mapping

Objective: Collect information on the topographical, villages/settlement, physical infrastructure, institutions, commonplaces, land use, and natural drainage of the area. This information will be recorded on maps.

Time: 3-4 hours

Materials: Brown paper, map, multi-coloured pens, adhesive labels, scissors, pencil

Preparation:

- The facilitator should prepare himself with all necessary materials before the participants come to the venue.
- A co-facilitator should take preparation for taking notes of the discussion.
- If available, the facilitator will study the LGED Thana Base Map (if available) to get an in-depth idea about the locality prior to the session.

Process:

1. At the orientation session, the facilitator explains the objectives of the activity. Participants should be encouraged to clarify any questions regarding the purpose of the task and the role of the participants in the exercise.
2. Participants are provided with a sketch map which includes the perimeter and common physical features of the location under consideration. They then add topographical, settlement, physical infrastructure, institutions, commonplace, land use, and natural drainage of the area.
3. In circumstances where contrasting information or diverse perceptions emerges, information would only be recorded when participants reach consensus.
4. If available, the participants use secondary information collected before the exercise.

11. See footnote 7.



Hazard Venn diagram

Objective: To identify and analyse the common hazards in the locality, their magnitude and likelihood.

Time: 1 hour

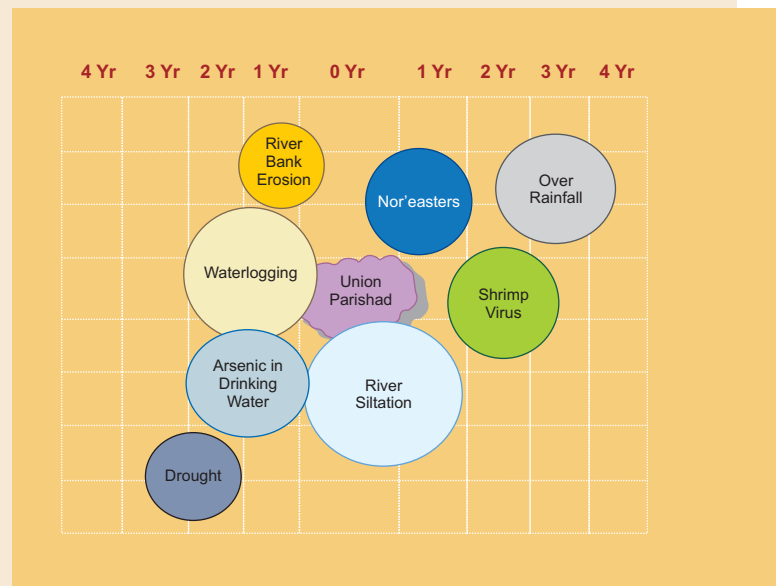
Materials: Brown paper, paper cards of different size and colour, marker, adhesive

Preparation:

- Collection and preparation of relevant secondary information on common hazards, their frequency, and damage caused and risks.
- The facilitator should prepare all the materials before the participants arrive.

Process:

1. The facilitator requests the participants to prepare a list of common hazards that take place in the locality. This list is adjusted with the secondary information collected beforehand.
2. The participants are requested to select round shaped paper cards for each of the hazards. The size of the pieces depend on the intensity and damage caused by the hazard: the bigger the size of the paper, the more intensive and damaging the hazard.
3. Now the participants are requested to put a paper card in the middle of the big brown paper writing the name of their locality and mark the upper side of the brown paper as north. Then they put the hazards on the brown paper around their locality depending on the direction they come into the locality. Hazards coming from different or no particular direction can be put anywhere.
4. At this time they consider the frequency of occurrence of each of the listed hazards, with the most frequent one placed closest to their locality.
5. All participants should agree on the position of the hazards and the position should be consistent with the secondary data collected. Any overlapping of the cards does not indicate relationship.



Hazard mapping

Objective: To locate the affected areas by specific hazards within the location under consideration.

Time: 2 hours

Materials: Large size map of the location with general physical features (e.g. river, canal, major road, culvert/sluice gate, location of Union Parishad, etc.), colour pencil, marker. Alternatively, the map can also be produced by the participants or if available, a duplicate of the social map can be used.

Preparation:

- Collection and preparation of relevant secondary information on common hazards, their frequency, and damage caused and risks.
- The facilitator should prepare all the materials before the participants arrive.

Process:

1. The facilitator presents the list of common hazards and will describe the process of identifying locations affected by specific hazards in the locality.
2. The facilitator then presents the prepared map so that the participants can easily identify locations in the map.
3. The facilitator then requests participants to draw hazard maps (one for each hazard) within the boundaries of the location.
4. Throughout the sessions allow participants to discuss and come to a consensus.

Livelihoods seasonal calendar

Objective: Document local livelihood options and their seasonality dimensions

Time: 1 hour

Materials: Brown paper, scale, colour markers, board, adhesive

Preparation:

- The facilitator should get an idea of local livelihood options, their seasonality, and trends.
- The facilitator prepares brown paper formatted with months at the top and place to write the livelihood options on the left hand side.

Process:

1. Based on personal knowledge and collected information, the participants prepare a list of livelihood options in their locality.
2. For every livelihood options, the participants identify the months of operation. The months are marked accordingly in the prepared brown paper by drawing a straight line.
3. Above this line, the participants draw a curved line indicating the intensity of the operation throughout the selected months.

Livelihoods	Boi	Joi	Ash	Sra	Vad	Ash	Kar	Ogh	Pou	Mag	Fal	Cho
Crop Cultivation												
Fish Cultuer (Gher)												
Fish Catch												

This exercise can also be done considering hazards, their occurrence and intensity.

Transect Walk

Objective: To gain clear understanding of the locality and its natural resources, land use, local problems, prospects etc.

Time: 3-4 hours

Materials: Union map with common physical features, notebook, pen /pencil

Preparation:

- Make a list of issues that should be taken into account during the walk. The issues should be relevant for the task the output of the walk is used for.
- Try to be familiar with the local terms e.g. *salun* (curry), *pokkhi* (birds), *kawua* (crow), *foshol* (field crop including fish), *hamildar* (pregnant women) etc.
- Ask the community to walk through a way the facilitator can get a clear idea about the locality and its natural resources, land use, plant and wildlife biodiversity etc.

Process:

1. The facilitator walks through the area of interest, documenting everything of interest according to the prepared list of issues. The facilitator will try not to walk through the common communication routes because you will not get most of the features (e.g. ponds, crop fields, homesteads, bushes) along the walkway. He/she will walk slowly to know each of the issues/features clearly e.g. benefits of biodiversity, use and benefits of medicinal plants etc. The facilitator will follow the questions what is it? when does it occurs? where does it take place? who does? why do they do? through which process? to lead his/her documentation.
2. The facilitator will talk with everybody he/she meets during the walk to complement his/her own observations.
3. Once the walk comes to an end, the facilitator will display the notes to the accompanying persons so that they can provide further input for necessary addition, modification, alteration or deduction.

Annex 2

In this annex, an example of all the tables is given. The example was developed by the Satota CP of Sulla union in Sunamganj District.

Table A-1 : Example of a hazard and impact table

Hazard	Impact	Severity of incidence	Time of occurrence and frequency	Which and how many households affected	Others relevant information
Flood	Village/Hati erosion	High	Every one or two years	<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ Total 235 HH 	Affected people take loans from money lenders with high interest
	Lack of shelters for livestock	Medium		<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ Total 200 HH 	Affected people sell their livestock at low prices
	Low availability of fodder for livestock	Medium		<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ Total 200 HH 	Affected people sell their livestock at low prices
	Children cannot go to school	High		<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ 175 HH 	During this period schools remain closed
	Low availability of food for people	Medium		<ul style="list-style-type: none"> ■ Poor and extreme poor ■ Total 120 HH 	Poor and extreme poor HHs have to take loans from money lenders with high interest rates. Some people migrate to other districts.
	Diseases	Medium		<ul style="list-style-type: none"> ■ Specially poor and extreme poor ■ Total 175 HH 	
	Decrease of income and employment opportunities	High		<ul style="list-style-type: none"> ■ Specially poor and extreme poor ■ 175 HH 	Poor and extreme poor are forced to migrate
	Increased vulnerability of pregnant women	Medium		<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor 	
Flash flood	Damage to boro rice	High	Once a year	<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ Total 235 HH 	Doesn't occur every year
	Low availability of food for people	High	2 months in a year	<ul style="list-style-type: none"> ■ Rich, medium, poor, extreme poor ■ Total 235 HH 	Poor and extreme poor HHs have to take loans from money lenders with high interest rates. Some people migrate to other districts.
	Decreased income and employment opportunities	High	1 season per year	<ul style="list-style-type: none"> ■ Specially poor and extreme poor ■ Total 150 HH 	
	Low availability of fodder for livestock	Medium	1 month in a year	<ul style="list-style-type: none"> ■ Specially poor ■ Total 50 HH 	Affected people sell their livestock at a low price
	Damage to fish production	Medium	Once a year	<ul style="list-style-type: none"> ■ Medium, poor, extreme poor ■ Total 50 HH 	

Hazard	Impact	Severity of incidence	Time of occurrence and frequency	Which and how many households affected	Others relevant information
Drought	Partial damage to boro rice	Medium	Every one or two years	<ul style="list-style-type: none"> Rich, medium, poor, extreme poor Total 235 HH 	Poor and EPs take loans from money lenders with high interest
	Partial damage to vegetables	Medium		<ul style="list-style-type: none"> Rich, medium, poor, extreme poor Total 235 HH 	
	Increase in different types of diseases	Medium		<ul style="list-style-type: none"> Rich, medium, poor, extreme poor (especially poor and EP) Total 235 HH 	
	Low availability of safe drinking water	High		<ul style="list-style-type: none"> Especially poor and extreme poor Total 120 HH 	
	Low availability of irrigation water	High		<ul style="list-style-type: none"> Rich, medium, poor, extreme poor (especially poor and EP) Total 235 HH 	
Hailstorm	Damage to boro rice and vegetables	Medium	Every year	<ul style="list-style-type: none"> Rich, medium, poor, extreme poor (especially poor and EP) Total 235 HH 	
	Damage to houses	Medium		<ul style="list-style-type: none"> Poor and extreme poor Total 40 HH 	Poor and EPs take loans from money lenders with high interest rates
Stagnant water	Land cannot be taken under cultivation	Medium	Every year	<ul style="list-style-type: none"> Rich, medium, poor Total 120 HH 	140 acres land can't be taken under cultivation. As a result 5500 mt paddy every year is lost.

Table A-2 : Selected impacts and time frame of interventions

Name of selected impacts	Period to tackle the impact	
	Short term (maximum 1 yr)	Midterm (1-3 yrs)
Village/Hati erosion due to flood		✓
Damage to boro rice due to flash flood		✓
Land cannot be taken under cultivation due to water stagnancy	✓	
Children cannot go to school due to flood	✓	
Increased vulnerability of pregnant women due to flood	✓	
Decreased income and employment opportunities due to flood		✓
Lack of shelters for livestock due to flood		✓
		Long term (3-5 yr)

Table A- 3: Analysis of the impacts

Impacts	Damage and risk related to the impact	Existing initiatives and strategies for addressing the impact	Initiatives or strategies to be undertaken in future
Village/Hati erosion due to flood	<ul style="list-style-type: none"> Need to borrow money from money lenders with high interest to protect Hati Creation of problems due to scarcity of shelter for livestock Sale of assets (livestock, paddy) at low prices 	<ul style="list-style-type: none"> Raising village/Hati and build protection wall using bamboo, chilla bon and water hyacinth 	<ul style="list-style-type: none"> Earth work for raising Hati Tree plantation
Damage to boro rice due to flash flood	<ul style="list-style-type: none"> Low availability of food for human and livestock/decreased food security Decreased income and employment opportunities Need to borrow money from money lenders 	<ul style="list-style-type: none"> Repairing embankment 	<ul style="list-style-type: none"> Cultivation of early variety of boro rice Repairing embankment
Land cannot be taken under cultivation due to water stagnancy	<ul style="list-style-type: none"> Leading to lack of food for human and livestock (fodder)/decreasing food security day by day Decreasing income and employment opportunities for poor and extreme poor 		<ul style="list-style-type: none"> Establish linkages/collaboration for re-excavation of canal/river with relevant stakeholders Re-excavation of canal/river through community mobilisation.
Children cannot go to school due to flood	<ul style="list-style-type: none"> No increase in literacy rate 	<ul style="list-style-type: none"> Establishment of bamboo bridge 	<ul style="list-style-type: none"> Earth work for preparing link road between hats
Increased vulnerability of pregnant women due to flood	<ul style="list-style-type: none"> Increased death rate of mother and child. 	<ul style="list-style-type: none"> Usually pregnant women are treated by traditional birth attendants (TBA), which often are not technically sound Sometimes pregnant women (who are the member of rich/medium families) are transferred to the upazilla health complex using a rented boat. 	<ul style="list-style-type: none"> Community will take initiatives to develop knowledge and skills of TBA.
Decreased income and employment opportunities due to flood	<ul style="list-style-type: none"> Increased migration Increased indebtedness 	<ul style="list-style-type: none"> Poor and extreme poor have migrate Sale of assets at unfair prices 	<ul style="list-style-type: none"> Community will take initiatives through CP network and create access to open water fishing.
Lack of shelter for livestock due to flood	<ul style="list-style-type: none"> Decreasing sources of income Hampered agricultural activities/increased production costs due to use of render power tiller or country plough Livestock are attacked by different diseases 	<ul style="list-style-type: none"> Farmers provided shelter for livestock in their bed room Sale out of livestock at unfair price 	<ul style="list-style-type: none"> Earth work for raising hati Establishment of flood centre for livestock by linking with relevant stakeholders

Table A- 4: Action Plan

Project	Main line of activities	Implementing time (month)	Implementing place	Tentative expenditure (Tk.)	Source of resource		Responsibility
					CBO/CP	External	
Earth work for raising Hati	Committee formation	June	Community				CP
	Raising of common fund	June	Community				CP
	Preparation of demand list of materials and purchase/collection materials	June	Community	10,000	10,000		CP
	Site selection for collecting soil	June	Community				CP
	Preparation of list for volunteer service	October	Community				CP
	Joint earth work for raising village/Hati and building protection wall using bamboo & chilla bon	June	Community	65,000	65,000		CP
Hijol & karooh tree plantation for protection against wave action	Committee formation in association with CP network	July	Community				CP and CP network
	Raising common fund	July	Community				CP
	Prepare demand list of sapling (hijol & karooh)	August	Community				CP
	Communicate with nursery owner and purchase sapling	September		3,50,000	20,000	3,30,000	CP
	Site selection and plantation	August-September	Community				CP
	Intercultural operation	Start from Sep.	Community	10,000	10,000		CP

Project	Main line of activities	Implementing time (month)	Implementing place	Tentative expenditure (Tk.)	Source of resource		Responsibility
					CBO/CP	External	
Cultivation of early variety of boro rice	Communicate with research organisation for collecting seeds	October-November	BRRRI, Dhaka	5,000	5,000		CP
	Farmers selection and setting demonstration plot	October-November	Community/Field	3,000	1,000	2,000	CP
	Knowledge and skill development training on improved rice cultivation techniques for farmers	October	Community	5,000	1,000	4,000	CP
	Organise of FFD for sharing the result	End of March 2010	Community/Field	3,000	500	2,500	CP
	Knowledge and skill development training on rice seeds preservation	March 2010	Community	5,000	1,000	4,000	CP
	Seed preservation for next year	April 2010	Community	3,000	3,000		CP
Promotion of TBA	Identification of existing TBAs	October	Community				CP
	Establish linkage with CARE-ARSHI project and upazilla health complex for training support	November					CP
	Organise training for TBAs	November	Upazilla	2000		2000	CP
Remove stagnant water from haor	Committee formation	June					CP
	Organise meeting with other CPs and CP network	July	Community				CP
	Raising a common fund	March 2010	Community				CP
	Communicate and negotiate with relevant projects, GOs, NGOs and UP for river re-excavation.	July 2009-February 2010	Community				CP
	River/cannel re-excavation through voluntary service by the community people	February-March 2010	Community	4,50,000	25,000	4,25,000	CP

About Intercooperation

Intercooperation (IC) is a leading Swiss not-for-profit organisation engaged in international development and cooperation. Intercooperation is both an implementing and an advisory organisation, providing professional resources and knowledge combined with social commitment. Intercooperation's expertise is grouped around three broad working domains:

- Environment and climate change
- Local Governance and Natural Resources
- Income and food security

In all its work, IC seeks to empower the poor and marginalised by supporting gender-balanced, equitable, rights-based development.

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