

# EVCA toolbox

## Mapping

### What is it?

Mapping is a way to visualise the resources, vulnerabilities and hazards in a community. Maps can be used to identify locations with exposure to hazards such as areas prone to floods or health hazards, indicating which groups and infrastructure such as health clinics, schools, houses are vulnerable, as well as map out location of resources and services (e. g. shops and businesses, clinics, schools, markets) that are capacities within the community. Maps facilitate communication and stimulate discussion, help people to understand complex spatial relationships and allow visual comparison of information.

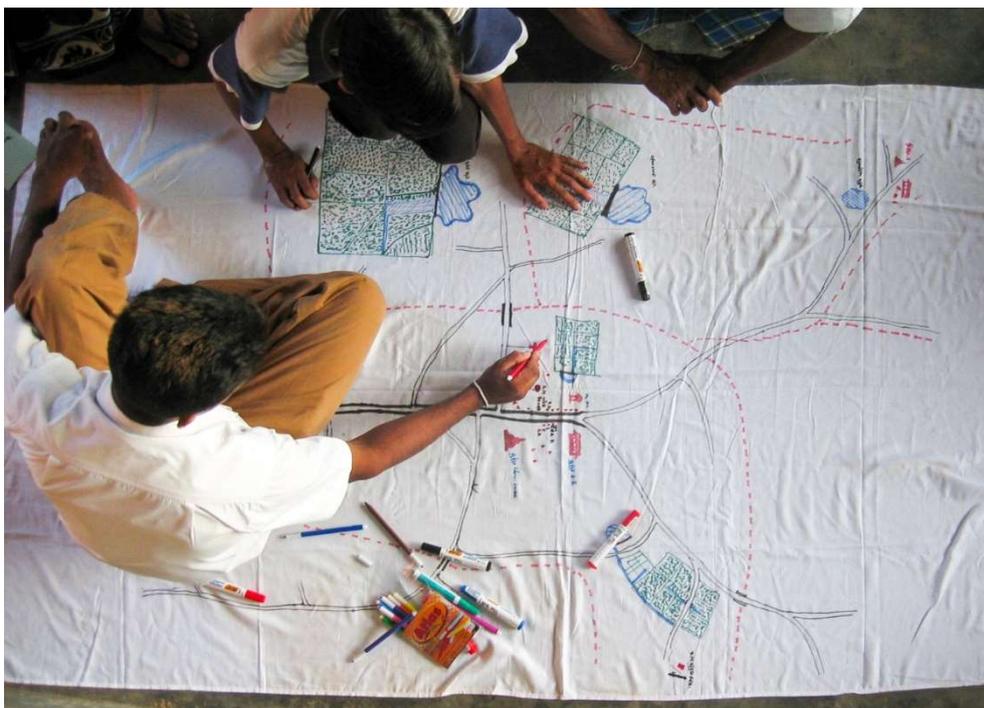
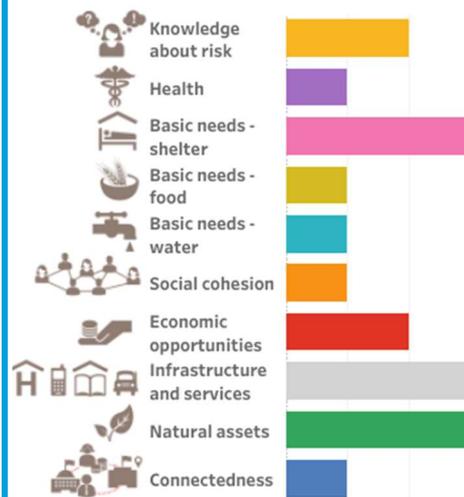


2 hours per map



Paper and pens, or map print outs, or digital mapping tools.

### Resilience characteristics covered:



Community mapping in Nepal Source: Danish Red Cross.

## Use it to...

- **Identify risk exposure** by mapping who and what is most exposed to hazards and other threats and issues facing the community.
- **Show** the different vulnerabilities, capacities and resources in the community and stimulate discussion.
- **Obtain** general information for different sectors (livelihoods, health, and shelter, etc).
- **Analyse** the links and patterns of risks in the community by overlaying hazard location, infrastructure, service distribution and other resources.
- **Identify** risk factors in the environment outside the immediate community boundaries, such as upstream watershed management issues or infrastructure development with potential positive or negative spill-over effects on community risks.

## Tool additional considerations

This tool has been revised to include basic aspects related to climate change, gender and diversity, livelihoods and health. However, if you want to understand these considerations more in-depth we have compiled [additional considerations here](#). These should be read and used as a complementary note to the steps described below.

## How to do it

### Step 1. Determine who will participate



One group or several smaller groups?

- Consider if it would be beneficial to separate the group so that women, men, children, disabled people or other groups will be able to participate more freely.
- If you do separate into groups, make sure you have appropriate facilitators for each a woman for women's group for example.
- Make sure you support people with disabilities to ensure their participation, for example visually impaired people could use a 3D map.

### Step 2. Explain the scope of the map

There are four main types of maps, or layers on the same base map:

- **Spatial map:** the base map of the community which shows an overview of the main layout and features and structures of the community. The base map could be based on a printout of existing maps or satellite images (obtained from Google Earth, Open street map or other internet sources).
- **Hazard and exposure map:** it shows the areas where hazards and threats impact the community, it also shows where risks have been getting worse and identifies exposed elements in the area (EVCA step 5).
- **Vulnerability and capacity map:** to show the vulnerabilities to different hazards and the capacities present in the community (EVCA step 7).

- **(Optional) Dream map:** used later during the planning phase (EVCA step 8) to show the aspirations of the community and help to inspire actions.

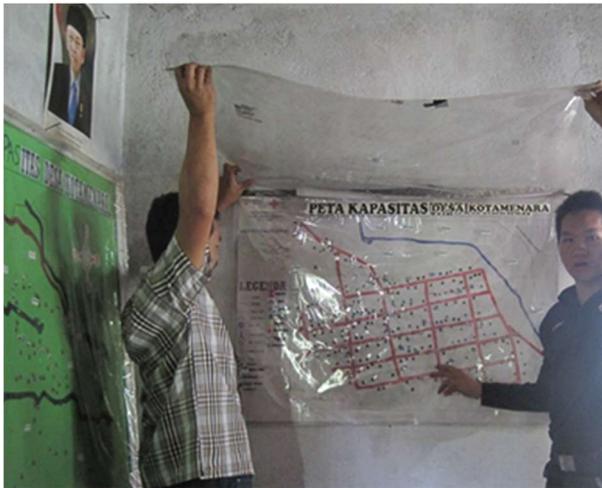
You work on all layers of the map in one session or start with a basic base map and then start adding exposure, vulnerabilities and capacities gradually by collecting information through other tools (e.g. transect walk, secondary data, etc).

### Step 3. Decide how the map will be developed

Maps can be drawn on the ground, on a paper sheet, blackboard, a printed map or aerial photographs. If available, you could also use participatory GIS or other digital mapping tools, but you need to make sure the community can actively participate using these tools. Free software used by the Red Cross Red Crescent includes [Open Street Map](#), Google Earth and [Q-GIS](#). See IFRC [introductory guide on GIS](#) and [PASSA Youth digital track of a community map](#).

#### TIP!

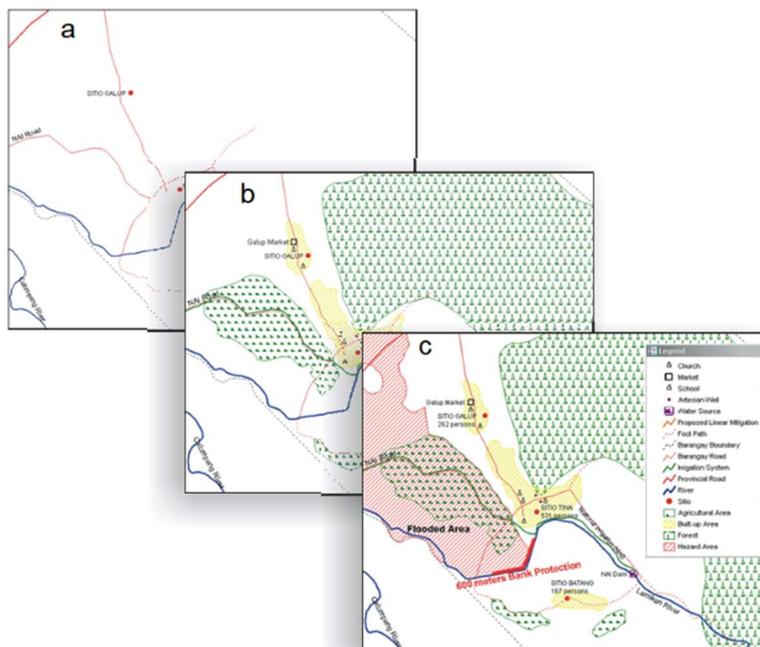
It is best to make the map out of material that can be preserved so you can use the map at a later stage. Laminating or using good quality paper are some options, you can also take photographs and/or make a video to keep an accurate record of the map (especially if drawn on the floor or on the ground). Agree with the group on a central location, such as the community centre or government office, where the map can be displayed. If you used digital tools for the map share the final products with the community.



*Community map with transparent layers for each hazards, Indonesian Red Cross Society (PMI)*



*Comparing community map with printout from Google Earth, Indonesian Red Cross Society (PMI)*



*Example of community map transferred into GIS - with a) base map, b) resources, c) flood zone and suggested large scale risk reduction project along the river, Philippine Red Cross.*

#### Step 4. Develop the map(s)

In this step the community draws or points out the elements on the map:

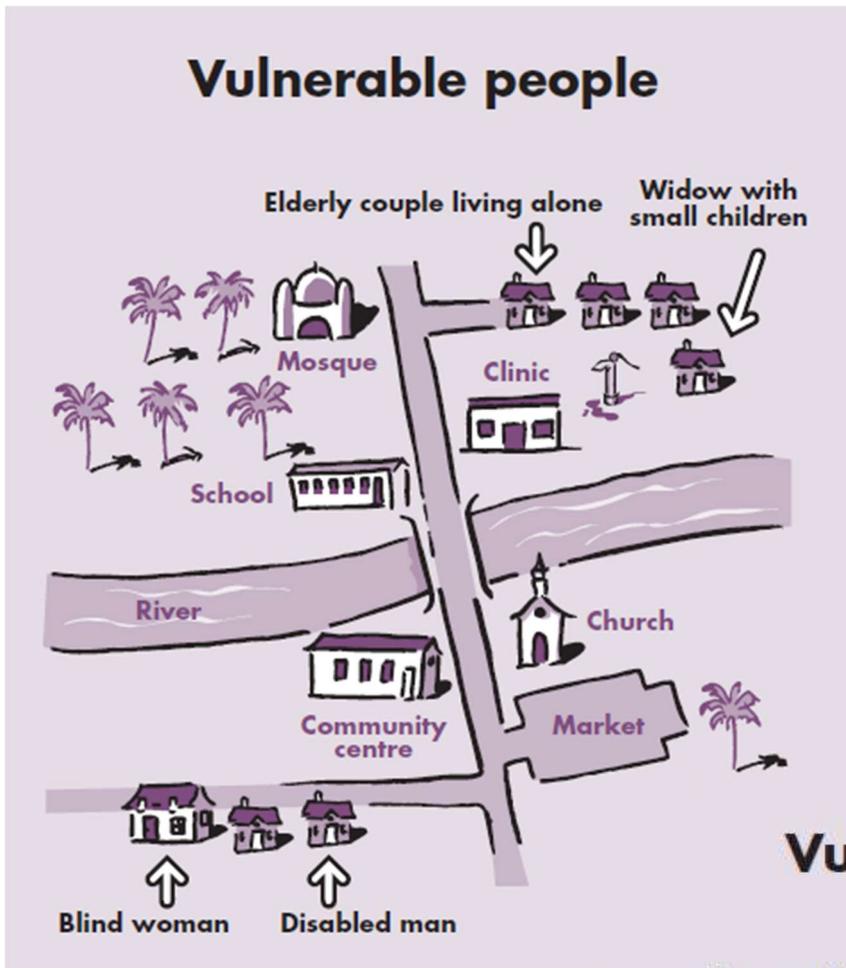
Start with the spatial map including the main features of the community such as:

- Main land features
- Roads, bridges, water points and other infrastructure.
- Housing areas
- Schools, hospitals and health clinics, markets, shops, places of worship, sports fields, etc.
- Land use (farms, fields) and open spaces such as parks, forests etc.
- Rivers, ponds and other water resources.
- Add key surrounding features that are outside the immediate community border but might have an impact (e.g. upstream watershed management, surrounding mountains, nearby border, etc.)

When adding the hazards and exposure, map the location of **hazards and threats** and consider the **exposure** of the elements below in relation to them. If hazards or threats are difficult to locate on a map such as droughts note them at the side of the map.

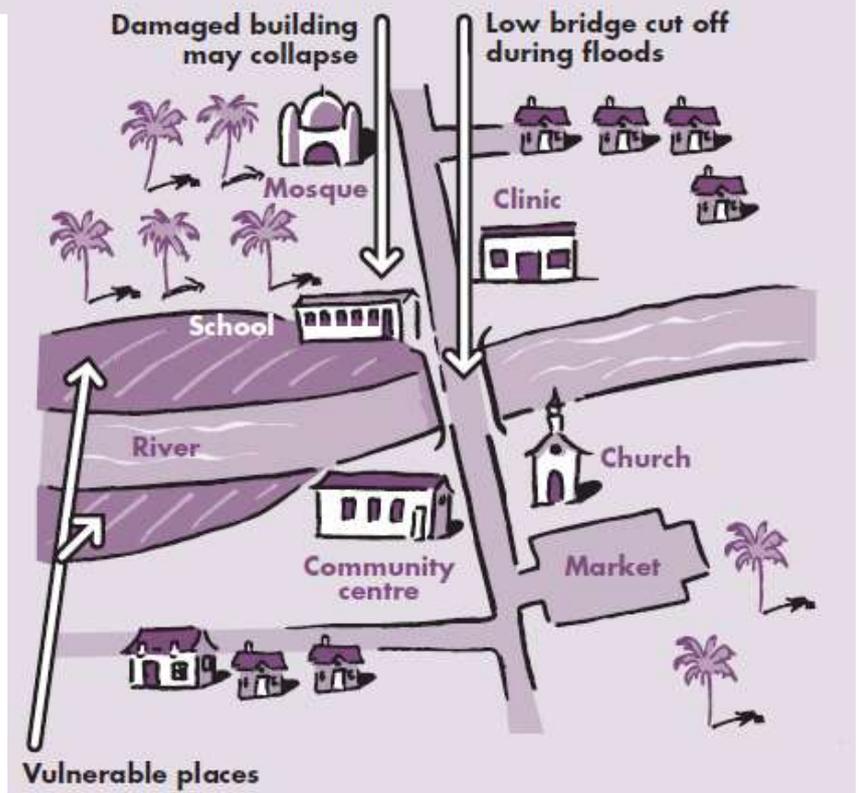
When marking the vulnerabilities and capacities on the map, consider the **state of weakness or strength of the elements** in the community in relation to the hazards or threats. You can use the [resilience characteristics](#) as guide to assess the different aspects of the community.

Optional: When drawing the dream map, draw what the area would look like within the next five to ten years if the community works hard to manage their risks.

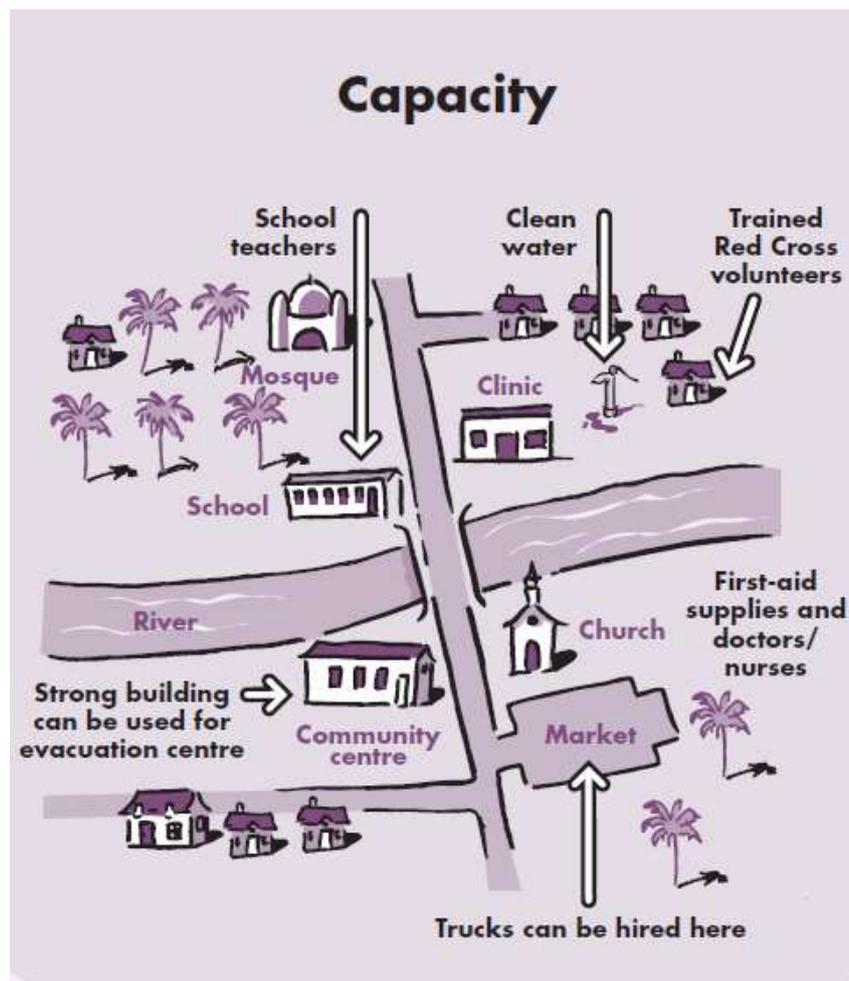


The following maps show how to map different vulnerable people and places or buildings in the community. The third map shows how to identify capacities to face risks within the community such as a strong building that can be used as an evacuation centre.

### Vulnerable places

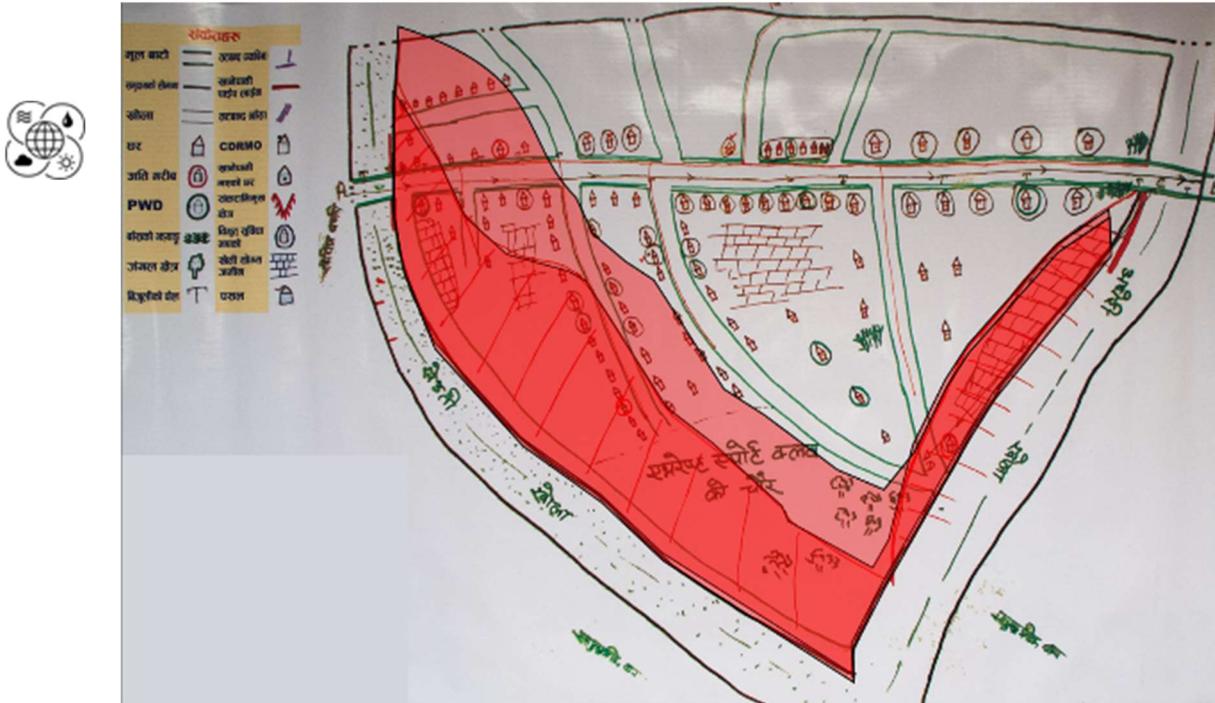


*Example from Indian Red Cross Society, Training of Trainers Curriculum for Community Based Disaster Management.*

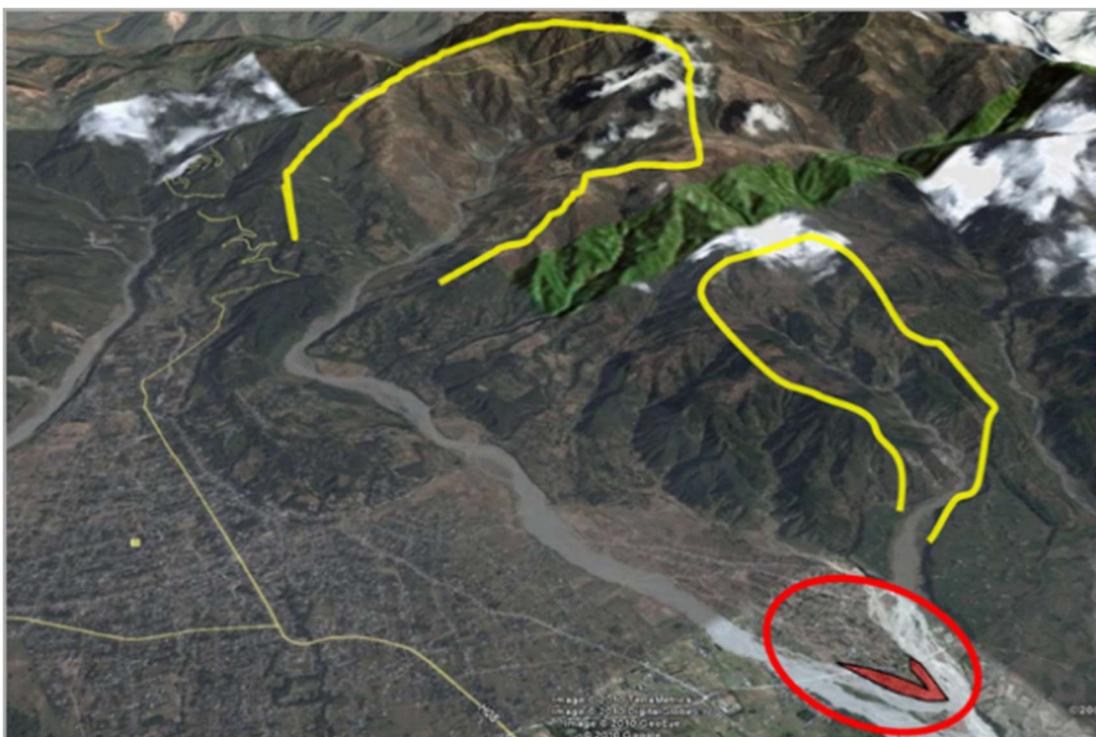


#### TIPS!

- While developing the maps ask people to describe not only the current situation but also how it may be changing. Try to map, e.g., flood zones in the past, and most recent flood zones - or even try to map areas that might become inundated if the next flood would be higher than ever before.
- Try to ensure that the map includes major environmental changes.
- Visit the mapped area with local people to verify the information (on a transect walk, for example).
- Contrast community inputs with scientific data on land use and the status of ecosystems (and again to validate observations).



Community map from Nepal including “normal” flash flood zone (dark red), “likely future” flash flood zone (light red); also note marking of households inhabited by people with disabilities (PWD, green circle). This is an example of how to map changing risks with expected new extreme weather events, Nepal Red Cross Society.



The same community (red circle) and flood zone from community map indicated on a Google Earth 3D image; the yellow areas are the upper, deforested watersheds that generate the flash floods. This is an example of how to consider the external environment in local risk assessment, Nepal Red Cross Society.



### Step 5. If different groups were made, bring the groups together to discuss the maps

Facilitators should discuss with each separate group the key issues before bringing the community together again. Then different maps must be brought together to discuss the differences and similarities between women, men, disabled and other groups. This will create a discussion around different perceptions and priorities which will support the development of solutions in the community.

### Next Steps

**Analyse** the information presented on the maps. Depending on the map drawn you will get different information to analyse:

**The hazard and exposure map** can provide you with information about the spatial location and impact of hazards and threats in the community and the exposure of different elements in the community to these hazards as well as its possible variations due to climate change. You can summarise that information in the table below.

Hazard	Level of exposure (elements)

**The vulnerability and capacity map** can provide you with spatial information about the vulnerability or capacities in the communities that can correspond with the [resilience characteristics \(see example table below\)](#). For example, under the characteristic of infrastructures and services you can analyse how many health facilities the community has and how well do they function, are they properly staffed and equipped? Is the building built robustly and away from the flood zones? This analysis will help you determine if the health facilities are in fact a capacity, or if they are vulnerable to specific hazards or threats. In the Roadmap to Resilience, you could also use this to later develop a community resilience indicator such as: number of health facilities build robustly and well-staffed & equipped.

#### Tip!

Try to reflect on the six characteristics of resilience when adding vulnerability and capacity to the map in relation to the hazards and the exposure.

<b>Resilience characteristics</b>	<b>Coverage of characteristic by tool</b>	<b>Example of information that can be collected</b>	<b>Vulnerabilities identified</b>	<b>Capacities identified</b>
Knowledge about risk		Knowledge of risk location, e.g. flood zones, dangerous roads with high frequency of accidents, etc.		
Health		Health facilities, sport facilities, poor sanitation facilities and garbage dump sites, overcrowded areas, neighbourhoods with previous disease outbreaks, etc.		
Basic needs – shelter		Location of settlement areas and houses -might identifying weak and strong structures, houses in risk locations, etc.		
Basic needs – food		Location of nutrition gardens, food storage, etc.		
Basic needs – water		Location of water sources, wells, pipes, etc.		
Social cohesion		Places of social activities like community centre, recreation areas, areas with high crime rates (social violence).		
Economic opportunities		Location of fields, farms, businesses, workplaces, markets, shops, etc.		
Infrastructure and services		Location of roads, streets, bridges, drainage, hospitals/clinics, schools, mobile network tower, etc.		
Natural assets		Location of rivers, forests, protected zones, green zones/parks, etc.		
Connectedness		Location of government offices, RC/RC branch, distance to nearest city/centre		

**The dream map** can help you plan projects with the community members based on the changes they want to see.

You can also use this tool at a later stage to monitor the progress of a project. What has changed? What improvements have been made or new issues have come up?

Use it as a tool to generate discussions with community members about the problems in the community, such as:

- What can the community **CHANGE** on their own?
- How can the community **INFLUENCE** change with the support of others in the medium term? Which hazards or threats may be caused (mostly) by factors outside the community, e.g. watershed management, and can the management of those areas/hazards be influenced through dialogue and advocacy - drawing on the 'connectedness' of the community?
- What must the community **TRANSFORM** which requires long-term support and technical and financial means?

## Constraints and pitfalls

- Mapping can require a lot of time and space to work in, participants need to be informed in advance of how long the session may take.
- Conflicts may result if inequities become apparent or old hostilities are rekindled.
- A cross section of the community is required to validate the overall perceptions of the community. It is suggested you do a transect walk in the area with community members to verify the information.
- One person may dominate or direct the mapping if the facilitator does not adequately guide everyone in the group to contribute.
- Aerial photographs or GPS printouts may be difficult to obtain or expensive to buy and might be hard to read and interpret. District maps or urban blueprints may reflect administrative boundaries that may not accurately represent the community.
- If you are using digital mapping technology you must make sure it does not hinder community participation, if so it may be better to do the exercise manually first and record the information digitally afterwards.

# Transect Walk

## What is it?

A transect walk involves walking through the community to observe and discuss the daily activities, the surroundings and the risks and resources. It is used to note the sites and topography of the area, to understand interrelationships based on space. It is a useful exercise to do in the assessment stage to get a feeling for the issues and capacities which exist in a community. In the programming and evaluation phases, it can be used to verify what changes have occurred in a community.

A transect walk is usually done early in the process because it gives an overall view of the community and helps identify things that may require further investigation later on during interviews or group meetings. The tool is most effective when done with community members.

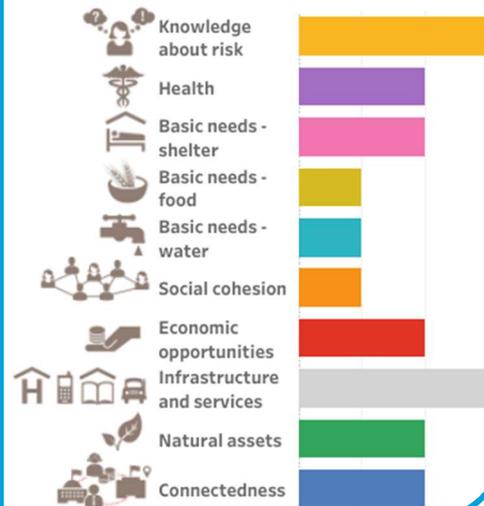


2-4 hours



Paper and pens, cameras or phones, digital mapping tools.

### Resilience characteristics covered:



Philippine Red Cross

## Use it to...

- **Build** trust with the community by being visible.
- **Cross-check** oral information and verify the information from the mapping exercise.
- **See** first-hand the interactions between the physical environment and human activities, behaviour, values, attitudes, practices and capacities.
- **Complement** the information in the maps with additional details and spark further discussion on danger zones, evacuation sites and local resources used during emergency periods, land use zones and natural resource management, commercial activity in the community, health issues, and safety and shelter concerns.
- **Identify** problems and opportunities which may be worth further exploration such as, housing or sanitary conditions; food available and sold in open-air markets; informal street commerce; or roles of men, women and children.

## Skills needed

The **facilitator** does not need extensive previous experience to use this tool but should be able to record and systematize the information gathered.

## Tool additional considerations

This tool has been revised to include basic aspects related to climate change, livelihoods, gender and diversity and health. However, if you want to go more in-depth into these issues we have compiled additional tool considerations on these topics [here](#). These should be read and used as a complementary note to the steps described below.

## How to do it

### Step 1. Select and prepare participants

**Participants** should have a good understanding of the community and be representative of the different groups in the community.



**Tip:** it can be useful to have a few people from other neighbourhoods or even neighbouring communities as part of a group as they might see things 'with a fresh eye'. Ensure that a **representative and gender balanced team** accompanies you on the walk to facilitate discussions with men and women during the walk. The group could be a mix of genders, age, disability groups and other groups in the community which can act as awareness raising activity to get to know different perspectives, or conducted as a separate transect walks with different groups. Provisions for people with disabilities should be made so they can participate in the transect walk.

Ensure volunteers and community members are safe and secure as they walk through the community or municipality. It may be necessary to have visibility gear for mappers especially if they are using OSM or other digital tools (cameras etc.) to document the findings.

### Step 2. Identify the route to be taken and the time

Once a mapping exercise has been carried out (spatial map, hazard/risk map, capacity and resources map), the group should pinpoint the areas most at risk, which is where the transect walk should be done. You can have more than one group and conduct walks along different routes. Remember to also

prepare by studying the target area/community in the wider environment as available in secondary sources like 'Google Maps' or 'Google Earth' etc. ([see Review of Secondary Sources](#)).

The **route can be decided** by drawing a line on the community map that goes through or “transects” all zones to gain a representative view of the community. Another possibility is to walk from one point to another, for example from north to south, or from the highest point to the lowest point, from the mountains to the waterside. When identifying the “transect” to take, ensure this has been identified in consultation with the different groups in the community to ensure a representative view. People with disabilities may have to take different routes to access various services that other people in the community may not be aware of.



**Consider the best moment for the walk**, according to your objective, if you want to observe livelihood activities it should be during labour time, if not maybe in other moments during day or weekends/day off.

### Step 3. Identify what you want to look for on the walk.

Make a checklist of the locations or area that you want to visit. Try to see that you visit different locations related to the six characteristics of resilience (see example table below). This may include:

- **Social environment to assess social cohesion and connectedness:** church, sports fields, shopping areas, restaurants, main areas of gathering (for children, adolescents, adults);
- **Physical environment to assess basic shelter and water needs, and infrastructure and services:** characteristics of housing construction and sanitation facilities, quality of roads, streets, bridges, drainage systems, water points, health and education facilities etc.;
- **Neighbouring communities/ cities to assess connectedness:** How close is the neighbouring community? Does the neighbouring community have any influence in the community you are working with? For example, does garbage from community A affect community B? Do people from community B go to community A to access health care?
- **Natural environment to assess risk location, natural assets management, and economic activities:** Hilly areas, steep slopes, coastal erosion, deforestation, status of rivers and major streams, land reserved for crops or livestock (grazeland), mono-cropping or intercropping, etc.

### Step 4. Add direct observation and interviews.

While walking, stop in different places, look at all possible elements of the analysis (see diagram below for the recommended ones). **Take time during the walk to stop and talk** to men, women, youth, elderly, disabled and others. Observe the services, hazards and risks that apply to different groups. ([See direct observation](#))



Try to better understand the changes over time, which can be done by triangulating with secondary information. Try to make observations of possible hazards that might be aggravated by changing weather patterns and note questions you may want to ask the community such as danger zones, erosion, flood plains, etc.



### Step 5. Record and analyse the information.

Write down, draw or take pictures of what you see and hear as you go along. Later this can be transferred to a transect diagram (see below) and/or added onto the community map. When recording the information disaggregate it by sex especially when noting: types of livelihoods, community centres, specific risks mentioned, land ownership, etc. As well as highlighting information provided by specific groups in the community.

Note down what you saw when walking through the community in the same way as you would systematize information collected by [direct observation](#) sorting it into the resilience characteristics. What are the problems specific to your area of intervention? What issues can be highlighted to partner organizations or government agencies? Determine areas that need to be further explored (either physical areas or issues) and select the tools to use, including [semi-structured interviews](#).

**TIP!**

Take pictures or videos when possible as means of verification. You can also use digital tools to record the observations at different points in a map. Track your walk by GPS (either in a smartphone app, or dedicated GPS unit), 'mark' (or note position of) special locations on the walk, and later check them by entering the coordinates in 'Google Earth' or Maps.Me.

## Constraints and pitfalls

If the facilitators are new to the community, they may not know the areas to walk through. It is helpful to bring others – a translator, community leaders or government officials – with them but they must be aware of their influence on what they do and do not see as well as on how people respond to you with them present.

Due to security issues there may be access constraints in areas controlled by gangs/groups, identify no-go areas if not done already and who is affected (men, women, children, elderly or different groups).

## Step 5. Draw a diagram of what you saw.

Example from VCA training in Eritrea

		
<b>Type of ground</b>	Hilly, slopy, valley	Rocky, hilly, valley
<b>Livelihoods</b>	Irrigation, farming, settlements, health, school, hay storage, water harvesting	Settlements, farming, soil erosion control measures, water harvesting
<b>Risks/hazards</b>	Soil erosion, water contamination, mosquito breeding	Erosion, mosquito breeding, unprotected dam
<b>Conditions that increase vulnerability</b>	Slopy ground, stagnant nature of water, deforestation, use of artificial fertilizer	Stagnant nature of water, slopy ground
<b>Beliefs and values</b>	Church, aloe for medicine	Aloe for traditional medicine
<b>Capacities</b>	Rocks, catchments, food production, water pump, water harvesting	Dam, catchments, food production
<b>Natural environment</b>	Water, aloe and eucalyptus trees	Aloe, water

Resilience characteristics	Coverage of characteristic by tool	Example of information that can be collected	Vulnerabilities identified	Capacities identified
Knowledge about risk		Risk location, e.g. flood zones, landslide risk areas, dangerous roads with high frequency of accidents, check evacuation routes and safe zones, etc.		
Health		(Linked to infrastructure): health facilities, sport facilities, poor water and sanitation facilities, garbage dump sites, mosquito breeding grounds, overcrowded areas, etc.		
Basic needs – shelter		Type of houses, houses located in high risk locations, identifying weak and strong structures, risk reduction features (e.g. on stilts, earthquake proof, hurricane shutters, etc), overcrowded areas (fire risk), etc.		
Basic needs – food		Prevalence of backyard and community nutrition gardens or urban agriculture, food storage, restaurants and food stands, etc.		
Basic needs – water		Location of water sources, wells, pipes, etc.		
Social cohesion		places of social activities like community centre, recreation areas, areas with high crime rates (social violence)		
Economic opportunities		Location of fields, farms, businesses, workplaces, markets, shops, etc.		
Infrastructure and services		Quality of roads, streets, bridges, drainage, electricity lines, quality of structure of hospitals/clinics and schools and if they are in risk location and have safety standards in place.		
Natural assets		Status of rivers (pollution), coastal erosion, mangroves and forests management, protected zones, green zones/parks, etc.		
Connectedness		Access to government offices, RC/RC branch, distance to nearest city/centre.		



A matrix is created with the months of the year (or locally appropriate time periods) as columns, and the events, hazards, activities and other phenomena significant to the community listed in the rows. Completion of the matrix helps to see when hazards, risks and vulnerability usually overlap. The analysis can help a community to rethink its routines according to its vulnerability to hazards. Keep in mind that the timing of some events, differs from year to year and that certain festivals and religious observances such as Ramadan fall on different dates each year.

### Use it to...

- **Find** out what activities take place in different seasons.
- **Identify** people's workload at different times of the year and the division of work between men and women in the community.
- **Compare** variations in availability of resources through the year, such as food, water and income. **Examine** how seasonality of events is changing over time.
- **Identify** the correlation between different events and reflect in the analysis how it might directly impact on risks
- **Recognize** the best time for the community to implement a project.

### Tool additional considerations

This tool has been revised to include basic aspects related to gender and inclusion, climate change, livelihoods and health. If you want to understand these considerations more in-depth we have compiled additional considerations [here](#). These should be read and used as a complementary note to the steps described below.

### How to do it

#### Step 1. Determine who will participate

One group or several smaller groups?

- Depending on the community's context it may be important to separate the community for this exercise into groups to promote participation and understand different perceptions by comparing seasonal calendars drawn by men, women, children, disabled people or other groups.
- If participants are separated into groups, it is important that there are appropriate facilitators for each group, a woman for the women's group for example.
- Make sure you engage people with impairments to ensure their participation.
- It may also be helpful to split younger and older people to compare "now" to '20-30 years ago'. It will allow the identification of how livelihood activities s like planting and harvests are changing, new weather patterns and health-related hazards are emerging or appearing at unexpected times of the year.



#### Step 2. Select the materials to make the calendar.

Seasonal maps can be drawn on 'anything': the ground using seeds, sticks, coins and other locally available materials; with pens on large flip charts or typed/drawn on a tablet or PC in Excel and

projected on the wall (see example [here](#)). To be able to refer back to the information at a later stage, it is useful to save the final product digitally, take a photograph, or both.

### **Step 3. Set the timeline for the calendar.**

Decide how long the calendar will be for (at least a year) and decided the time intervals: these can be the months of the year, lunar dates, or seasons such as a dry period and a wet period. Start with what people in the community consider to be the beginning of the year according to their calendar; it does not have to be January. The starting point may coincide with the harvest season, the rainy or dry season or certain key celebrations. Time intervals are drawn as columns across the top.

### **Step 4. Determine the events to be added to the calendar.**

The events should be listed in a row on the side. There is a wide range of information that could be collected as “events” including:

- Weather: Seasons, times of hazards and threats
- Disease and epidemic outbreaks
- Livelihood activities: Times of heavier work load, crop and livestock production like planting and harvest time, lean season, seasonal migration, income generating activities
- Times of surplus and food deficit
- Social events, festivals, religious celebrations, holidays and periods with an increase in expenditure levels such as weddings or school fees

Make sure to capture different roles, responsibilities and workloads for men, women, children and elderly.

This information can be collected all at once or by first focusing on the timing of hazards and threats and then adding other ‘events’ that will then highlight vulnerabilities (e.g. harvest season falls during the flood season) and capacities (e.g. income generating activities or remittances during the typical lean season).

### **Step 5. Consider changes over time**

For each event, draw double lines to create two rows – one for the present and a second one for the past (10-30 years ago). This will show whether seasons and other social economic events are changing which may have implications for health problems, disasters and livelihoods. It is not one past event, but patterns in the past that you are looking to document in the seasonal calendar.

### **Step 6. Determine values**

Invite participants to mark the timing of the events in the calendar. If it is difficult to capture precise information, start with general information, such as when is the peak of the rainy season and when is the peak of the dry season. Different levels of ‘intensity’ can be marked by, for example through the size of a symbol/drawing, or the numbers of Xs, a digit or different colours (see example below).

**Step 7. If different groups were made, bring the groups together to discuss the results**

Facilitators should discuss with each separate group the key issues before bringing the community together again. Then different calendars must be brought together to discuss the differences and similarities between women, men, disabled and other groups. This will create a discussion around different perceptions and priorities which will support the development of solutions in the community.



**Example of seasonal calendar comparing past and present seasonality**

Events	When	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
High Temp.	Past	••	•••										
	Present			•••	••								
Drought	Past	••											•••
	Present			•••	•••								
Rainy Season	Past			••	•••								
	Present				••	•••	•						
Strong Wind	Past	•											•
	Present	••											••
Landslide	Past				•	•							
	Present					•							
Farming	Past			•••	••	••			•	•			
	Present				•••	••		•	•				
Animal Diseases	Past			•••	•••								
	Present	•••	••										
Human Disease (Diarrhea etc.)	Past			•	•					•	•	•	•
	Present		•	•						•	•		
Mosquito Bite	Past				•								
	Present				•••	•••							

*Red Cross and Red Crescent Climate Centre*

**What does this calendar tell us?**

Seasonality have changed for all events - in some cases considerably. For example, mosquito bites have increased a lot which may be an early warning to prepare for combating vector-borne diseases in the future. And the drought periods and rainy season has shifted, affecting flood preparedness planning and water harvesting activities.

**Step 8. Discuss and analyse**

- a. **Start your analysis by comparing** the seasonal calendar information with the information collected during the review of secondary sources, community meeting or ranking.
- b. **Cross-check** the information in the calendar, for instance:
  - Do the start and end points of crop seasons coincide with the local rainfall data? Do the changes in season correlate with climate variability and climate change observation data?
  - Do peaks in labour demand and high-income months coincide with these periods?



- Do prices go down at harvest time?
- How do these effects differ according to gender and age?

**c. Analyse** the seasonal calendar by looking for links between different parts:

You may find information that characterises the **hazards** and **threats** such as;

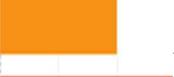
- How do hazards impact the community's economic situation?
- When do hazards occur throughout the year? Have any changes been observed in this from the past?
- What is the relationship between the wet and dry seasons and times of human/animal diseases?



You may also find information about the **vulnerabilities** to different hazards and capacities with in the community;

- When is their workload heaviest?
- What is the relationship between food shortage and migration and between climate and disasters?
- Which factors/events have changed seasonality and/or intensity? If such changes would continue, how could that be considered in planning of resilience interventions?

**d. Reflect** on and **organise** the results of your analysis in terms of the resilience characteristics (knowledgeable about risks, health, needs, social cohesion, economic, infrastructure & services, natural assets and connectedness) in relation to the hazards and the exposure. See below as an example.

Resilience characteristics	Coverage of characteristic by tool	Example of information that can be collected	Vulnerabilities identified	Capacities identified
Knowledge about risk		Times of hazards/ threats (flooding, drought, hurricanes etc.)		
Health		Times of disease outbreaks/epidemics, cold/flu season, heat waves, etc.		
Basic needs – shelter		Time to repair houses (e.g. re-roofing)		
Basic needs – food		Time of Lean season, harvest season, food surplus		
Basic needs – water		Time of water shortages, water harvesting		
Social cohesion		Social events, festivals, holidays, schools break, seasonal migration, times of stress, times of violence/ security risk		
Economic opportunities		Times of livelihood activities such as planting, harvests, trade, seasonal migration, income generating activities, different workloads of men and women over the course of the year		
Infrastructure and services		Time for infrastructure maintenance (e.g. fire walls, repair to drainage systems, roads etc.		
Natural assets		Time for tree planting, closed fishing/hunting period, time for forest product collection, etc.		
Connectedness		Time of local council planning and budgeting, election time, community meetings, etc.		

**Variation: 24 Hour Clock**

In addition to a seasonal calendar, you can also scale it down to a **daily activity calendar**. A daily activity calendar is used to document the various activities of an individual over the course of a day and the duration of each activity. This tool can be used, for example, to identify the **different tasks performed by men and women** and when they do them. In urban areas it can also document urban citizen’s **mobility** and tasks at different places during day and night time, issues of safety and differences by age, gender and livelihood groups. The information can also be useful for knowing when best to **schedule meetings or activities**. Discuss:

1. At what points during the 24 hours’ time period do you feel the least safe (mark this on the clock), what do you feel impedes your safety?
2. What parts of the day are most important for your livelihood? How does this change throughout the year?
3. Are there points of the day where you are available for social activities (mark this on the clock)?

**Example of a women daily activity calendar from Lebashirik Village, Kenya Red Cross:**

Time	Activity
5.00 am- 5.10am	Time to wake up and light fire wood
5.10am- 6.00am	Milking of the livestock
6.00am- 6.20am	Make tea for school going children and herders
6.20am- 7.00am	Separate young calves and goats kids with their mothers and cleaning of Boma
7.00am- 10.00am	Going to fetch water
10.00am-12.00nn	Prepare lunch for the husband and small children at home
12.00nn-1.00pm	Make beads and wash clothes
1.00pm-5.00pm	Fetch fire wood
5.00pm-7.00pm	Fetch water
7.00pm-7.30pm	Milking
7.30pm-9.30pm	Prepare supper and serve
9.30am-11.00pm	Wash utensils, making stories and going to sleep
1.00am-2.00am	Wake up to milk the camels and going back to sleep

# Venn Diagram

## What is it?

A Venn diagram is a drawing, in which circular areas represent groups of items sharing common properties. Venn diagrams can be used to collect social data by using circles to show the links or relationships between different parts of a community or institution. A Venn diagram in the context of a VCA is used to examine similarities and differences between institutions, partners, people and issues in a community and to identify problems and possible solutions. Venn diagrams are especially relevant for institutional analysis as they can help to identify specific organizations that could be involved in implementing a community action plan or specific risk reduction projects.

In a Venn diagram, each circle represents a different actor or influence in a situation. The size of each circle indicates its importance relative to the other circles and its position indicates its relationship to the other circles. It is a good way of identifying and clarifying the relationships between different interest groups, institutions and decision-making bodies. There is no set method for doing a Venn diagram. The important thing is the participatory nature of the process.



Constantly throughout the EVCA process



Paper and pens or tablet for note-taking

**Resilience characteristics covered**

-  Knowledge about risk
-  Health
-  Basic needs - shelter
-  Basic needs - food
-  Basic needs - water
-  Social cohesion
-  Economic opportunities
-  Infrastructure and services
-  Natural assets
-  Connectedness



Use it to...

- **Clarify** the different interest groups, institutions and decision-making patterns.
- **Show** the claims people have on others during a period of hardship and how institutions, both internal and external, operate to provide resources during an emergency.

Skills needed

The **facilitator** needs to have a high degree of experience in facilitation to use this tool. He or she should fully understand the objectives of the tool and what the diagrams are trying to say about issues in the community. It requires a good understanding of the cultural context.

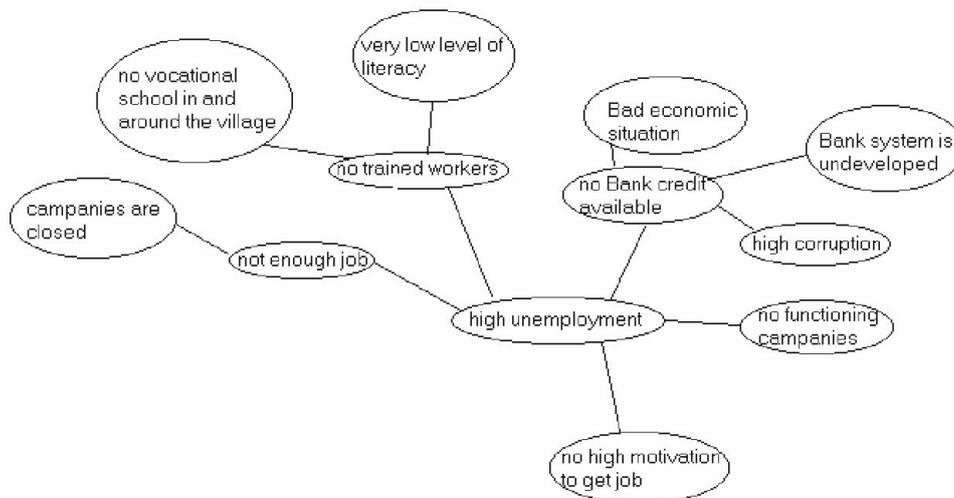
**Participants** should have some preparation for the activity, as it can be quite abstract. This tool mainly relies on visual analysis of interaction with institutions and relationships so does not require a high degree of reading or writing skills.

How to do it

**Step 1. Identify the principal players.**

Have participants reflect on which are the main organizations in the community. Which ones are from outside (e.g. is it an international NGO)? Which are local services (e.g. religious, educational, health, sports, cultural)? Are there political groups? What committees exist such as a parent-teacher association or community farming committee?

Another approach is to start with the main issue in the centre and have the participants identify the causes of the problem. The Participatory Community Development Guide gives this example of a reflection on the causes of high rates of unemployment:

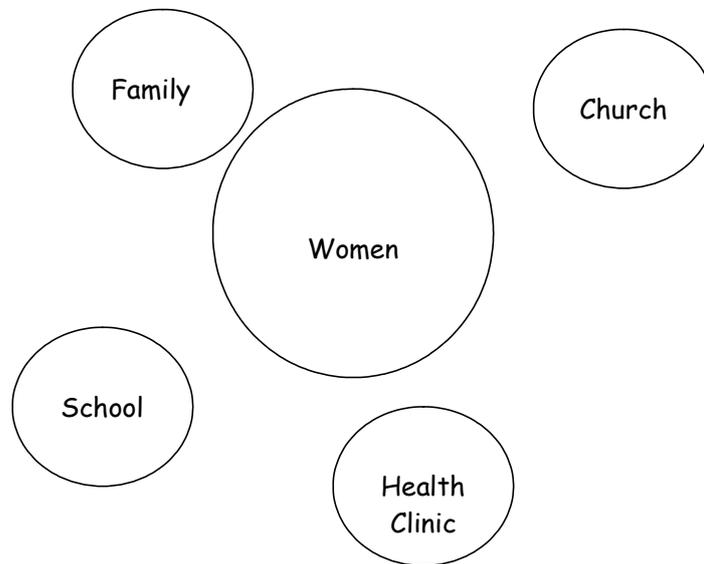


**Step 2. Ranking institutions.**

Get the participants to cut or draw circles of different sizes to represent the items that they want to compare. This may be relationships between institutions (identified in Step 1), decision-making patterns, or issues. It can be done either using paper or drawn on the ground. If drawn on the ground, it is a good idea to take a photograph of the end result so that it can be used for later reference.

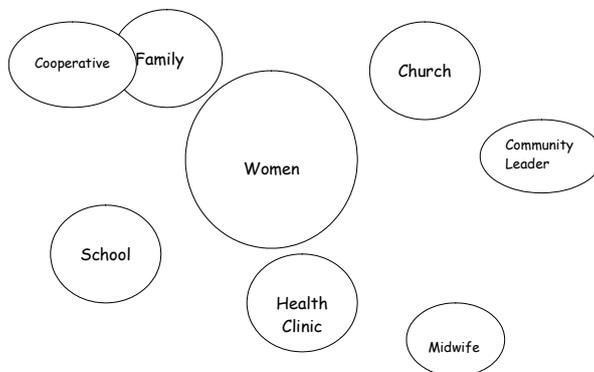
What relationships exist between women and community organizations?

\*example based on “Stumbling Toward Gender Aware PRA Training in Indonesia”, by Judith Dent, PLA Notes (1996)



**Step 3. Determine relationships.**

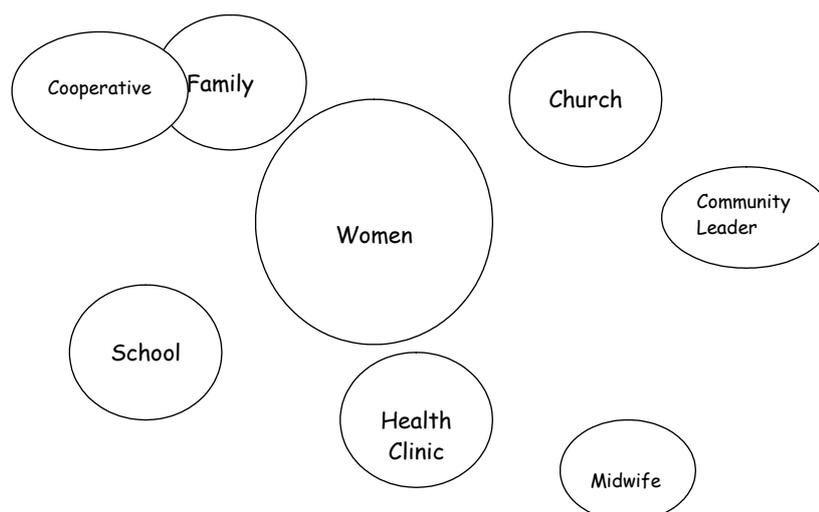
Ask participants to place circles according to what they have in common with other circles.



### Step 4. Compare.

What is unique to each circle? Where is there overlap, and what does this mean?

- Most important to women are their families, the church, the health clinic and school.
- Furthest from them and where benefits are least felt are the community leader, midwife and cooperative.
- No relationship between women and church or cooperative were identified.



### Constraints and pitfalls

This method relies upon relative homogeneity of the participants' perceptions. Conflicts may arise if done in a community with strong divisions along economic lines, caste, religion, etc. In this case, it is advisable to do the Venn diagram in smaller, more homogeneous groups.

### Next steps

If dealing with issues facing the community, continue the activity by brainstorming possible solutions and have participants rank the issues by order of priority.

Organise the information into the resilience characteristics covered by the tool (see below) and cross-check the information collected by using other tools. For example, if the issue in question addressed the different relationships between men, women and children, a daily activity calendar can be used to go into more detail about the different tasks accomplished by community members and when they do them.

If the Venn diagram highlighted services offered in a community, it is useful to cross-check this through a [community map](#) that identifies the services which exist in the community.

Resilience characteristics	Coverage of characteristic by tool	Vulnerabilities identified	Capacities identified
Knowledge about risk			
Health			
Basic needs – shelter			
Basic needs – food			
Basic needs – water			
Social cohesion			
Economic opportunities			
Infrastructure and services			
Natural assets			
Connectedness			

# Historical Profile and Visualization

## What is it?

Historical profile and historical visualization are two similar ways to building a picture of past events that have an effect on a community and stimulate discussion on what has happened in the past. The tools are a powerful way of allowing people to voice opinions and share their history. It also offers a good opportunity to discuss changes in hazards patterns and compare with secondary data on landscape changes, trends in weather patterns. Awareness of the patterns can influence the decisions taken by community members in the planning process.

- In a *historical profile* community members create a timeline of the different significant events and developments over the past several decades.
- With *historical visualization*, the community members create a chart showing how key aspects of their lives have changed over time.

30-60 min each

Paper and pens or PC/tablet.

**Resilience characteristics covered:**

	Knowledge about risk	
	Health	
	Basic needs - shelter	
	Basic needs - food	
	Basic needs - water	
	Social cohesion	
	Economic opportunities	
	Infrastructure and services	
	Natural assets	
	Connectedness	



Community of San Juan de Letran, Salvadorean Red Cross Society

### Use them to...

- **Get an insight** into past events, such as major disaster events or crisis, and what changes have occurred over time.
- **Understand** the present situation in the community (causal link between past and present for health issues or hazards and vulnerabilities).
- **Understand** how things may continue to change in the future (trends).
- **Bring** into discussion changes in known risks and new risks (e.g. due to climate change or urbanisation) using secondary information about expected new risks and changes.
- **Serve** as a basis for discussions on future projects within the community.

### Skills needed

The **facilitator** should be able to maintain the focus of the participants on the selected topics. It should be someone who can establish trust with the participants and is respectful. Skills in recording systematic information are also important. The facilitator should be able to mediate any discussions or conflicts which may arise.

The tools are more relevant if the **participants** have lived in the community for some time and know the history. They should be able to express themselves clearly, and accurately reflect on past events and changes in the community.

### How to do a historical profile

This tool promotes a better understanding of the most significant events of the past and how the community has developed over time. It can lead to a shared understanding of the community's **history and identity**.

The aim of a historical profile is for the community to identify all the events and activities that have left their mark on the growth and development of the community. Through the profile, members of the community, especially the younger generation, will get to know and understand how the community has evolved. This can be a powerful tool, as people learn, appreciate and write down the efforts made by earlier generations; they will better value what they have and the past achievements of their community members.

PERFIL HISTORICO		COMUNIDAD BARRIO NUEVO OROTINA
1966	Fundación del pueblo con 3 Familias: Castillo, Salazar y Vargas.	
1970	Recibe el nombre de Alto del Soncho, debido al matadero que era su actividad económica la cual generaba olores fuertes y llegaban los zopilotes.	
1980	Inicia el comercio por medio de transporte en carretas porque era el único medio de trasladar mercaderías de Orotina a San José.	
1985	Debido al asentamiento de nuevas urbanizaciones el nombre de la comunidad pasa de Alto del Soncho a Barrio Nuevo.	
1986	La municipalidad construye por primera vez trochas, brindando así una mejora significativa al Barrio.	
1987	Este año el ICE empieza con el proyecto de alumbrado público en la comunidad.	
1988	Se conforma el primer grupo de personas que realizan el primer comité para la fundación de la ASADA incorporando así por primera vez el agua al Barrio Nuevo.	
1990	Se desarrolla la primera Asociación de Desarrollo con los primeros pobladores siendo estos: Anatolio, Tño Castillo, Robertino y Alejo.	
1993	Por la mala planificación se empieza a construir casas a las orillas del río siendo afectadas tres de ellas por el aumento de las aguas.	
1997	La ADI reúne fondos para la construcción del rancho, donde se reúnen y planifican las mejoras para la comunidad.	
2000	Se da el 1er derrumbe por falta de muros de contención, el río lava las bases del puente.	
2004	La municipalidad comienza un proyecto de asfaltado en la carretera principal.	
2011	Se organiza la comunidad y municipalidad para la construcción de las aradas.	

Example from VCA in Barrio Nuevo, Costa Rican Red Cross.

People will also be stimulated to think ahead: What do past changes tell us about trends in risks and extremes? What needs to be done to manage those risks?

For a digital version, see [PASSA](#) youth (Activity 1 – historical profile)

### Step 1. Identify areas of interest and timeframe.

Clearly define the topics for which you want to collect information. These could be disaster events including food security or conflicts or health problems (including relative severity), environment and land use changes, and related vulnerability and capacity. You can also identify trends and changes in livelihoods, social changes and migration over time for different groups. Think about the [resilience characteristics](#) to identify the topics and indicators for which you want to collect information..

### Step 2. Select the participants.



When selecting participants, you will want to find people, who know the community and are open and willing to share their experiences. Historical information is more effective when there is participation from a broad spectrum of the community, especially the elderly who have lived in the areas for a long time, but also adults and young people (to identify new trends) and different groups in the community including marginalised groups.

If the cultural context requires it, you may need to implement this tool on separate occasions: with the elderly and adults and with young people. In other cases, it may be best to divide up the group by men and women or other groups to create safe environments for discussion.

Given that different groups might have conflicting experiences it is important to ensure that the Facilitator captures differing opinions within the group.

### Step 3. Discuss historical events

You can work backwards from today to how far participants can remember, or start with some basic historical facts. Start off by asking people if they can recall major events in the community related to the aspects below:

- What have been the major extreme events and their impact – which year, month and how severe?
- Have weather and climate events such as flood, drought and cyclones changed in frequency or severity?
- What have been the major health problems (high levels of non-communicable diseases, substance abuse, etc.) and epidemics? Have you noticed any changes?
- Have there been new emerging ones (vector- or waterborne, which could potentially be affected by changes in climate)?
- What changes have there been in land use and tenure?



- What have been the major political and social events?
- What have been major social changes (e.g. gender roles, migration, violence)

Where relevant, use secondary source information e.g. about historic events in the community (e.g. earthquake 100 years ago) or about external influences on hazards facing the community, such as deforestation in upper watersheds that increases the risk of flash floods, to stimulate a more in-depth discussion.

### TIP!

Memory bias is a potential challenge here, so it is important to triangulate information and try to ask clarifying questions to help avoid misinterpretation of apparent drastic changes.

### Step 4. Capture the information.

A note-taker – either a participant, another specified person or the facilitator – should write the events discussed down on a blackboard, a large sheet of paper or a word or excel table in chronological order. Make sure participants are aware of how you are going to proceed and have agreed that the information will only be used for the purpose of investigation.

### Example (adapted from Make that Change)

1944	First ten families settle in the community
1951	Construction of the railway and presence of 20 railway workers
1954	Railway workers lived in the village. Main railway station was donated to the community and became the school.
1957	Fire in the community destroyed two houses. The church was built with the support of the community.
1959	Heavy rainfall caused river to flood 10 houses near the river bed; 5 houses damaged
1960	Water system providing potable water to one-third of the population was constructed accounting for about 200 houses in the community. Electricity coverage was extended to half of the population.
1980	Paved road linked to main highway.
1987	Earthquake destroyed many houses and services.
1989	A clinic with 30 beds was inaugurated.
1990	Dengue outbreak killed four people. River flooding – about same magnitude as 1959, but 17 houses damaged.
1991	Hurricane Alex severely hit the community and flash floods destroyed at least 120 houses while another 50 were damaged.
1992	Community Disaster Group created.
1994	Heavy migration to the capital due to heavy droughts and job losses, which affected the economic situation of many households.
1999	Drainage collapsed along with tonnes of garbage.

2003	A sports centre was constructed.
2009	Strong rains; river flood higher than ever and 29 houses were evacuated and 15 damaged.
2010	Hurricane James hit (milder than Alex in 1991) – the sports centre served as evacuation centre; 15 homes damaged.

The example above shows how and when major events occurred and how they impacted on the community. Through further discussion with community members, you can find out how the community has changed over time.

### Optional Step 5 - Discuss impacts and additional information

You can also add more columns to your historical profile as depicted in the example below to capture not only what happened in the community but how it impacted it and which organisations were involved thus collecting more information about both the vulnerabilities and capacities in the community. Ask question such as:



- Have hazards affected men, women, disabled people, age groups or minority groups differently?
- How have past events affected gender roles?
- Based on past events, what capacities do men, women, boys and girls have for coping with, responding to, recovering from and preparing for future crises?
- How did people react when difficult times happened? What coping strategies did they implement? Which ones worked? Which ones did not work? Did they have consequences (negative or positive)?
- Who provided assistance during difficult times?

**Example of extended historical profile** that includes the effects in the community and active organisations (Community of Barangay Bakhaw Sur, Philippine Red Cross).

DATE	EVENT	EFFECTS IN COMMUNITY	ORGANIZATION ASSISTED
1962	Foundation of Buswang Old-Bakhaw Sur Elementary School (BOBSES)	Community Literacy Program	DEPED, LGU KALIBO, PERALTA FAMILY
1970	Barangay Health Center Established	Improved health care in the community	SANGUNIANG BARANGAY, MR. ROMEO INCENSARIO, BHW'S, MUNICIPAL HEALTH CENTER
1980	Barangay Hall Constructed	Seat of Barangay Local Government	LGU-AKLAN BIDA 20% DEVELOPMENT FUND
November 5, 1984	Typhoon Undang	Devastation in the community	LGU/ RED CROSS/ DSWD
1990	Earthquake	Loss of Livelihood	LGU KALIBO
	Start of Road Construction	Provided better access in the community	
1992	Municipal Dumping Site Started	Health hazard	
2000	Start of food processing livelihood	Improved livelihood and increase in income	NAVARRA FOOD PRODUCTS SOROPTIMIST INTERNATIONAL, TESDA
2004	El Nino Phenomenon	Drought	MUN. AGRICULTURAL OFFICE, DA, 20% DEV'T FUND, LGU KALIBO, LGU AKLAN, SANGUNIANG PANLALAWIGAN
	Construction of Sacro Costato Convent		
2006	Construction of the new Health Center and Barangay Hall	For better delivery of health care and government services	LGU-AKLAN 20% DEVELOPMENT FUND
2007	Construction of RC Supermarket Warehouse	Barangay Capacity	RC Supermarket
June 21, 2008	Typhoon Frank	Flooding and Soil Erosion	RED CROSS, DSWD, LGU AKLAN, LGU KALIBO, TSU TSI FOUNDATION, GMA KAPUSO FOUNDATION AND SAGIP KAPAMILYA
2010	Construction of Starline Furniture	Barangay capacity	Starline Furniture
2011	MOA Signing with Philippine Red Cross	Barangay capacity building	Philippine Red Cross
2012	Construction of Circumferential Road and Drainage System	For better access in the community and lessen flood	SANGUNIANG PANLALAWIGAN, LGU AKLAN, 20% DEV'T FUND
2013	Construction of Fu's Merchandise Warehouse	Barangay capacity	Fu's Merchandise
November 8, 2013	<u>Supertyphoon Yolanda</u>	Flood, Soil Erosion, Loss of livelihood, Damage to Property	RED CROSS AKLAN CHAPTER, DSWD, LGU AKLAN, LGU KALIBO, MDRRMO, PDRRMO, SOROPTIMIST INTERNATIONAL, RC 143-BDRRMC
2014	Groundbreaking of Housing, Daycare Center and Chapel	Improved living condition	THE LAMB SHALL LEAD INTERNATIONAL, DIOCESE OF KALIBO
	MOA with KALAHYAN CIDDS	Infrastructure project to lessen the effects of flooding	DSWD, DILG, KALAHYAN-CIDDS
	Construction Of Multi-Purpose Hall	Use as daycare center, evacuation center and other recreational used.	LGU AKLAN, SANGUNIANG PANLALAWIGAN, DILG 20% DEVELOPMENT PLAN

When you analyse the results of the timeline it can be useful to also divide the key elements into the different resilience characteristics (knowledge of risks, basic needs, social cohesion, economic opportunities, infrastructure and services, management of natural resources and connectedness) to allow for better triangulation with other tools.



When reviewing the events, discuss if some risks appear to have changed in frequency or severity; what might be the likely causes of such changes (e.g. changes in external environment, land use patterns/housing, weather patterns?)

## How to do historical visualization

This tool visualises how key aspects of the community life have changed over time. It can pinpoint changes in the nature and behaviour of hazards (in terms of frequency, duration, severity, impact), changes in vulnerability (population pressure, poor housing construction, poor drainage system, degraded ecosystem etc), and also changes in capacity (health facilities, water facilities, schools, roads, communications). Housing, trees, river levels, livestock and hazards, and helps people to think about how their susceptibility to certain risks may continue to change in the future.

### Step 1. Identify the participants.



Like for the historical profile, identify people who are representative of the community, especially the oldest and youngest people, who are willing to participate. One way to do this is to divide them according to their ages and time living in the community you can also divide them by gender or other relevant categories for participants to express themselves freely.

### Step 2. Define the themes and timeframe.

Decide on the themes you would like to discuss and ensure that all the participants agree to them. Put the themes as columns across the top of a table. For the hazard assessment make sure to include the major hazards and health problems. For the vulnerability and capacity assessment take into account the [resilience characteristics](#) and pick elements from them (e.g. natural assets, social and demographic changes, economic activities and livestock, etc.).



Select a starting year (at least 50 years in the past) and create rows by decades You can also add 2-3 decades in the future.

### Step 3. Select the symbols and assign values.

Pick symbols to represent the people, houses, trees, money, companies, according to the themes etc. that are to represent the changes on the chart. Each symbol can represent one, ten, a hundred or a thousand items.

### Step 4. Discuss and document.

Ask participants to start filling out the table. Promote an open discussion, with the participation of all the group members. Where necessary complement and motivate the discussion using secondary information about the hazards, vulnerabilities and capacities in the community.



Resilience characteristics	Coverage of characteristic by tool	Example of information that can be collected	Vulnerabilities identified	Capacities identified
Knowledge about risk		Dates of major disaster events		
Health		Dates of major disease outbreaks and epidemics		
Basic needs – shelter		Major construction development, changes in building styles and type of houses, density of settlement.		
Basic needs – food				
Basic needs – water				
Social cohesion			Demographic changes, important social events.	
Economic opportunities		Major changes in types of livelihoods and assets, major migration events (urbanization, abroad, influx of refugees).		
Infrastructure and services		Year of construction of key community infrastructure (e.g. hospital, new school), year new government policy of free health care came into effect, # of household with access to electricity		
Natural assets		Changes in quality of natural assets		
Connectedness				

# Review of Secondary Sources

## What it is

A review of secondary sources means collecting information that already exists, usually in the form of written reports, documents or data from other organizations, local government authorities and social institutions. This exercise enables you to gain an overall picture of the community.

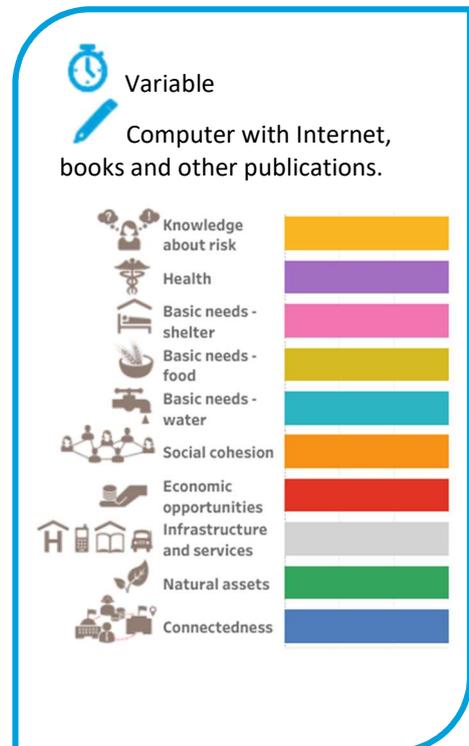
The secondary sources should not be restricted to documents only about the community itself but should include all external sources of information that may be useful to the EVCA. This may include risk maps and information on climate change and changes in land use that may affect river runoff, infrastructure plans, maps of a river basin etc.

## Use it to...

- **Get** an overview of the situation based on the work already done by others.
- **Cross-check information** gathered by other means.
- **Get** a broad perspective of the challenges facing the community and a history of what has been done so far to address them, including information that cannot be gathered at the community level (e.g. about infrequent hazards or evolving risks such as climate change).
- **Contribute** to the community baseline data.
- **Collecting** information on a wider geographical scale to review the physical environment and landscape in which the community is situated and understand how external factors like upstream dams, uphill deforestation, flat coastal plains or slow flowing rivers through valleys or cities may be part of the general 'risk landscape' to consider in the EVCA and subsequent risk reduction planning.

## Skills needed

Secondary sources mostly take the form of written material (printed or on the internet). Therefore, an ability to read and pick out relevant bits of information from complex materials is a requirement. The facilitator also needs to be able to provide very clear instructions to the rest of the team and keep it focused on the objectives to avoid ending up with too much information of marginal relevance.



## How to

### Step 1. Determine what information you want to collect.

Usually, a wide range of information is available and is needed to provide an adequate picture of the situation in a community. In order not to get overwhelmed, it is important to remain focused only on the information necessary and relevant to the VCA and the kind of project that will stem from it. Focus in the data collection as much as possible on information which is relevant and related to [the resilience characteristics](#).



In many circumstances, primary documents are written by men about men. Keep this in mind when consulting secondary sources. Look also for sources that have been written by women or about women.

### Step 2. Make a list of potential sources of information.

Potential sources of information	
<p><b>1. Internet</b></p> <ul style="list-style-type: none"> <li>• UN organizations (UNHCR, UNICEF, WFP, WHO)</li> <li>• World Bank</li> <li>• Government sites</li> <li>• Foundations</li> <li>• Educational institutions and universities</li> <li>• Summary reports</li> <li>• Data and statistics</li> <li>• Access to online libraries</li> <li>• Maps (aerial, GIS, topographical, satellite imagery)</li> </ul> <p><b>Links to related websites:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">UNISDR Country Profiles</a></li> <li>• <a href="#">GFDRR ThinkHazard!</a></li> <li>• <a href="#">Inform Index</a></li> <li>• <a href="#">World Bank Country Data</a></li> <li>• <a href="#">World Bank Climate Country Adaptation Profiles</a></li> <li>• <a href="#">IFRC-IRI MapRoom</a></li> <li>• <a href="#">Google Earth</a>,</li> <li>• <a href="#">Open Street Maps</a> (see community surroundings in 3D)</li> <li>• <a href="#">IFRC GO</a></li> <li>• <a href="#">FEWSNET</a></li> <li>• <a href="#">WFP – GEONODE Maps</a></li> <li>• <a href="#">GIEWS - Global Information and Early Warning System</a></li> </ul>	<p><b>2. Resource persons</b></p> <ul style="list-style-type: none"> <li>• Government officials</li> <li>• Local authorities (police, health-care workers, fire fighters, social workers, etc.)</li> <li>• National Society colleagues</li> <li>• (I)NGO workers</li> <li>• Expert opinions from key individuals</li> </ul>
<p><b>3. Other organizations active in the area</b></p> <ul style="list-style-type: none"> <li>• Other National Societies</li> <li>• IFRC and its reference centres</li> <li>• IFRC DREFs &amp; Appeals.</li> </ul>	<p><b>4. Libraries</b></p> <ul style="list-style-type: none"> <li>• Local library</li> <li>• University library</li> </ul>

<ul style="list-style-type: none"> <li>• International non-governmental organizations (e.g. Oxfam, World Vision, CARE)</li> <li>• Networks and coalitions</li> <li>• Local, regional and state government ministries</li> <li>• Specialized government institutes (e.g. National Disaster Management Office, Met Office)</li> <li>• Private sector or local businesses</li> <li>• Info from other risk and needs assessments</li> <li>• Reports (situation reports, project reports, annual reports)</li> </ul>	<ul style="list-style-type: none"> <li>• Local, regional and state government libraries</li> <li>• Related organizations</li> <li>• Journals, magazines, newspapers</li> <li>• Books</li> </ul>
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### Incorporate climate change information<sup>1</sup>:

First you need to check what is already known about the current climate and any possible changes; so:

- Check if your National Society has worked on a climate change background document as part of the 'Preparedness for Climate Change' programme (over 60 countries had participated by the end of 2011) – this may contain useful information.
- Find out if someone in your National Society is in contact with the national meteorological office and/or environment department. If not, you could make an effort to establish the relevant collaboration.
- These offices will be able to provide an overview of historical changes (eg. rainfall patterns for a given town) that are already occurring, plus projected climate for the coming decades (eg. increasing drought for a given country). This might take the form of 'National Communications'. The historical trends information could be available for specific locations. However, it is important to note that projections for the future are not available accurately at local scale (downscaled models don't agree with each other) and therefore can't be used for guiding site selection or to help identify site-specific adaptation measures to include in community risk reduction plans resulting from the VCA process.

Information collected at this stage may provide good guidance on what questions to ask communities. If for example changes in rainfall patterns are evident, then having a discussion with communities on how this might impact their lives now and into the future could assist in developing longer-term strategies to deal with it. Knowing what is changing and likely to get worse may even be a way of choosing which parts of the country to focus your efforts. You may even be able to get someone with knowledge of climate change to give you and other VCA facilitators a briefing.

You will find a general Red Cross/Red Crescent basic climate change presentation at: <http://www.climatecentre.org/site/presentations>

**Note:** If you need climate information explained in a way that makes it relevant to your work and in less scientific or technical language, or if you have difficulty understanding the information you are given, you can send it to the IFRC climate helpdesk and ask their assistance at: [ifrc@iri.columbia.edu](mailto:ifrc@iri.columbia.edu).

<sup>1</sup> [Red Cross Red Crescent Climate Centre. How can climate change be considered in Vulnerability and Capacity Assessments? 2012.](#)

### Step 3. Collect the information.

Some types of information you might want to consider collecting:

- Location and geography of community – including general landscape and land use of the community and surroundings.
- Main economic activities and income breakdown (livelihoods groups)
- Literacy rates, if relevant. Language skills (for refugees)
- Access to community (road infrastructure and transportation methods).
- Population (total, births, deaths, distribution, age, occupations, migration, minority groups?).
- Gender and diversity composition in the community – male, female, age (including children and elderly), ethnic or religious groups, LGBTI persons, nationalities, migrants.
- Number of people with disabilities (male, female, children & elderly), number of people with each type of impairment (adult and children), number of people with disabilities enrolled in school, total number of people with disabilities living alone, number of households having more than one person with disabilities.
- Community resources (services available to community members, incl. health facilities).
- Social norms and their implications on gender relations – Family codes, cultural practices such as female genital mutilation, early marriage, discrimination/stigmatisation of lower castes, ethnic minority groups.
- Roles and responsibilities of women, girls, boys and men of different ages and of diverse groups, in the home and communities.
- Community organizations – formal or informal.
- History of risks in the community, including health risks such as Ebola or malaria outbreaks or disaster risks such as earthquakes.
- Vulnerable areas, such as hazard-prone areas or densely populated areas where there are many vulnerable people, e.g. a low-income area.
- Changes in hazards (climate change, changing river runoff due to deforestation, etc.) and changes in vulnerability (e.g. migration, economic developments, emergence of ‘slum areas’ in risk zones etc.).
- Weather trends/extremes recorded at the nearest weather station possible.
- National level climate change projections.
- Location of emergency shelters and environmental hazards.
- Political parties or social movements active over the past number of years.
- Security issues in the region.



For a more detailed list of the information to collect see [Community Factsheet](#).

### Step 4. Analyse the information.

The information gathered will provide a first impression and overview of the community in question, the problems it is facing and the capacities it has to address them.

Look for any information gaps that remain after you have reviewed the secondary sources. These gaps will be the basis for further investigation using other tools.

After the VCA has been conducted, the information from secondary sources can also help to interpret the information gathered through the other tools.

## Constraints and pitfalls

There can be volumes of information available on a topic or no information at all. If there is an overwhelming amount of information, being clear about the objectives of your research will assist in narrowing down the focus and ensuring that the most effective sources of information are used. Focus on relevant sources rather than collect every possible bit of information or known source. When no specific information is available about the community, find out what you can find about the wider region. Information can become quickly outdated or can be influenced by political opinion. It is important to know when the source was authored and the original purpose for which it was written.

### TIP!

- If the data being examined have been collected by an official body such as the National Statistics Office, it is reasonable to assume that the information is reliable. However, it is advisable to examine other sources of information as well. This will enable you to triangulate the data available. If that is not possible, find out what data-collection methods were used (the tools, people surveyed, timing, etc.).
- When getting information from special agencies (e.g. on population, health and weather/climate), ask for analysed and summarized 'information', not 'raw data' which might overwhelm you.
- Proceed with caution when researching the Internet, as information on web sites can be presented to look very authentic. Assuming false information is true because it is deemed to be from a reliable source is a major pitfall. You will need to verify the authenticity of the source and cross-check the information with other sources or tools such as semi-structured interviews.

## Next steps

To assist in analysing the information collected, ask yourself the following questions:

- What new learning has come of this?
- What priorities have others identified?
- What major trends did you identify?
- What conflicting information exists (including information that contradicts other sources such as semi-structured interviews)?

Use the answers to these questions to guide the selection of other tools, such as semi-structured interview livelihoods analysis or community meeting, to cross-check the information gathered during the review of secondary sources.

Information from secondary sources can be very useful to have in hand before doing a EVCA. It is important that team members have access to the information before they go into the community. In some cases, it will be quite clear how the information should be used in the context of the EVCA. In other cases, the information might be relevant but sensitive, for example a new government measure that is contributing to vulnerability, or difficult to explain, for instance a new risk is emerging owing to

climate change. Team members need to think in advance how to broach such issues, prepare a common approach and seek advice if they are in doubt.

**Synthesize and summarize the information** and share it with the community members. What are their views on it? Does it accurately reflect the reality in their community? If not, information needs to be adjusted, updated.

# Community Factsheet<sup>2</sup>

## What is it?

Community Factsheet gives an overview of the capacities and resources available in a community at the start of the assessment process, providing basic background information and context. It is important to combine generic information on the community with data reflecting the resilience characteristics as a basis to establish an effective baseline picture. Much of the requested information may be readily available from secondary sources, some may have to be obtained through the VCA process itself especially through key informant interviews. Collect disaggregating data by gender where possible. More detailed data might be collected later on through resilience measurement tools or in-depth sectoral assessments (see Roadmap to Resilience).

This tool relates to:

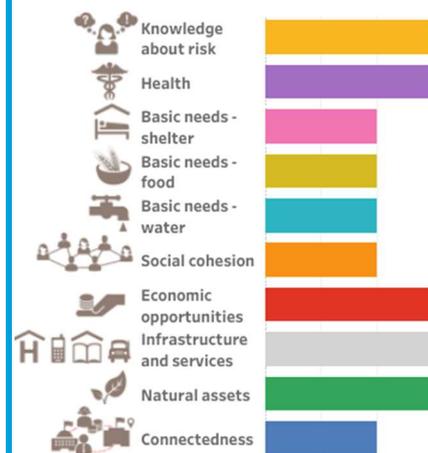
EVCA Step 2.6 and Step 4.2

Roadmap to Resilience Stage 1 – Step 5



Completing the community baseline data may take several days as it combines secondary data collection with information obtained through the VCA.

### Resilience characteristics covered:



## Basic Information to collect:

- Demographics.
- Topography
- Health and morbidity.
- The local economy (principal occupations, levels of income, economic activities, industry, etc.).
- Basic services and their coverage (electricity, water, sanitation, health).
- Basic infrastructure.
- School attendance and literacy levels.
- Land tenure.
- Hazards and recent disasters.
- Political structures and affiliations.

<sup>2</sup> This list was developed based on a checklist devised by Jim Good and Charles Dufresne of InterWorks to assess a community's vulnerability to disaster and its capacities to respond (InterWorks, 21 April 2001, [www.interworksmadison.com](http://www.interworksmadison.com)). Some of the questions have been adapted/edited.

- Intra-community and inter-community organisation.
- Social trends.
- Patterns and causes of conflict, violence and crime.

Example checklist for detailed factsheet:

### **General Information**

- Name of community:
- Location of community: latitude/longitude, elevation above sea level (*optional*)
  - Province
  - District/Department
  - Municipality
- Type of Community
  - Rural
  - Sub-urban (within 5 km of urban services)
  - Urban
- Physical description of community
  - Location is mountainous
  - Includes floodplain, wetlands
  - Coastal area
  - Drylands
  - Other physical features
- Specific weather or climatic conditions, including extreme events and/or observed change in climate
- Demographic information on the community
  - Total population
  - Total adults (> 20 years)
  - Total youth (13 -20 years)
  - Total children (5 - 13 years)
  - Infants, toddlers and young children (< 5 years)
  - Average family size (related family members under same roof)
  - Gender composition of the community
- Local contact information
  - Mayor: name and contact information
  - Police: contact information
  - Fire brigade: contact information
  - Head of emergency committee: contact information
  - Red Cross/Red Crescent branch: contact information
  - Other key community leaders and contact people

### **Information related to specific resilience characteristics**

#### **I. Community capacity to know and manage its own risks**

***Preparedness planning***

- Is there an emergency preparedness and response plan in place?
- If so, when was it written and who is the primary contact?
- Does the community have community-based response teams?
- What are the linkages in terms of preparedness planning between the community and other actors? (local authorities, NGOs, community-based organizations, etc.)

***Early warning***

- Is there an early warning system?
- Are community members familiar with this system and what it means?
- If yes, do community members consider it to be a reliable system?
- Has this early warning system been used successfully in the last five years?

***Evacuation***

- Are there evacuation procedures?
- Does the community understand these evacuation procedures and evacuation routes?
- Does the community recognize and respect those with the authority to announce an evacuation?
- Have these evacuation procedures been used successfully in the last five years?

***Response skills and resources***

- What emergency response skills and resources exist in the community (e.g. first aid, search and rescue, public health)?
- Have community members participated in emergency response or evacuation drills and simulations?
- Are there skills to carry out a Damage Assessment and Needs Assessment locally available?

***Emergency response resources***

- Is there a stockpile of emergency items?
  - Food (describe)
  - Blankets (number)
  - Tents (number, type)
  - Stretchers (number)
  - First-aid kits/bandaging material (number of kits)
  - Ambulance
  - Other vehicles that could be used in emergency response (describe)
  - Other items?

***Local capacities for disaster mitigation and response***

- Physical/material resources and capacities
- Technical skills/human resources in the community
- Social/organizational capacities in the community

**II: Community Health status and facilities****Health and nutritional conditions**

- Malnutrition rate for children under 5 in the community
- Infant mortality rate for this community
- Most common illnesses among the general population (measles, HIV/AIDS, influenza, pneumonia, dengue, cholera, typhoid, diarrhoea, intestinal parasites)

- Most common illnesses among youth and children (measles, pneumonia, malaria, meningitis, diarrhoea, intestinal parasites)
- Public education about health issues? Yes or No?
- Public education received by \_\_\_\_\_ on which of the following: sanitation, disease, diarrhoea, nutrition, pre-natal care, HIV/AIDS

#### **Health services in community**

- Number of hospitals and Clinic type(s)
- Total number of beds available at clinic(s)
- Average number of free beds available
- Number of physicians resident in the community
- Number of nurses resident in the community
- Number of public health or maternal and child health care agents in the community
- How far is the nearest health clinic? Where is the nearest health clinic?
- What health services are provided at the community level?

#### **III. Community capacity to meet its shelter needs**

- Basic house construction type (describe)
- Other prominent construction types in the community (describe)
- Average house size (per family in sq m)
- Availability of emergency shelter
- Condition and construction type of emergency shelter
- Availability and location of mass shelter

#### **IV. Community ability to meet its basic food needs**

- Typical food type consumed (crops, livestock...)<sup>3</sup>
- How families acquire their food (production levels, market supply...)
- What assets are owned to support food access and availability (land, tools, livestock, transportation means)?
- What is the current food situation in the community? How does this compare to a “normal” situation?
- How families cope when food is scarce?<sup>4</sup>
- Who appears to be most food insecure? Who is most at risk of becoming food insecure?
- Typical food assistance distributed for short-term emergency (cash or in-kind)
- Food reserves at family level (# of months for the lean period or the food gap)
- Food reserves at community level (shops, food banks, warehouses, programmes, etc.)

Please refer to the Global food security assessment guidelines: <http://www.ifrc.org/Global/global-fsa-guidelines-en.pdf>

#### **V. Community ability to meet its basic water and sanitation needs**

##### **Water**

- Water source for community (describe)
- Water source vulnerable to flooding
- Is water source dependent on electrical pumps?

<sup>3</sup> [Food Consumption Score \(FCS\)](#) and [Household Dietary Diversity \(HDD\)](#)

<sup>4</sup> [Coping Strategy Index \(CSI\)](#)

- Quality of the drinking water source:
  - Potable
  - Non-potable, but not polluted
  - Polluted source

### **Sanitation**

- Typical type of sanitation in use by individual families/shelters (describe)
- Sanitation arrangements in place for mass shelter
- Are sanitation arrangements adequate for the number of people to be housed in the mass shelter?

### **VI. Social cohesiveness of community**

- Presence of formal or informal networks in the community
- Perceived level of safety in community
- Level of engagement of community members in response, preparedness and mitigation activities.
- Existence of community structure dedicated to risk management.
- Active engagement of vulnerable or marginal groups in risk management.
- Level of confidence in public authorities (local government, police, emergency services...)

### **VII. Ability of community to provide economic opportunities to its members**

- Main types of livelihoods/income sources of community members.
- Level of employment of community members (identify the % of family members who have migrated for economic opportunities in a near town, in neighbouring country or further)
- Engagement of community in formal and informal economy
- Barriers to the development of economic activities, self-employment or employability
- Access to natural and physical assets: land (for cultivation, pasture, fish farming), rivers, forests, productive assets (tools, machines for agro-processing, business assets...)
- Access to financial services (saving and loans groups, microfinance institutions, banks, moneylenders...)
- Access to social safety nets
- Access to insurance schemes

### **VIII. Presence of well-maintained and accessible infrastructure and lifelines/services**

#### **Infrastructure and access**

- Roads to access the community
  - Concrete
  - Asphalt
  - Macadam/gravel/limestone
  - Unpaved/dirt
  - Vulnerable to flooding, mudslides?
- Bridges
  - Are there bridges leading to the community?
  - Types of bridges
  - Are these vulnerable to flooding (or other hazards)?
  - Weight limit
- Nearest airstrip (*optional*)
  - Location of nearest airstrip
  - Distance from community

- Paved
- Unpaved
- Marked
- Unmarked
- Description
- Power facilities
  - Overhead electricity distribution
  - Local generator and network
  - Individual power only (individual generators)
  - No electrification
- Communication facilities
  - Radio (type, who, where)
  - Telephone (type, who, where)
  - Fax (type, who, where)
  - E-mail/internet (type, who, where)

### **IX. Ability of community to manage its natural assets**

How well is the community managing the following natural resources?

- Trees: type of vegetation:
  - Heavily wooded area
  - Mixed wooded and open agricultural areas
  - Mainly open areas with only occasional tree cover
  - Are there reforestation programmes in the community?
- Grade of slopes:
  - Buildings are built on level ground (0–2% grade)
  - Buildings are built on low slope (3–5 % grade)
  - Buildings are built on medium slope (5–10 % grade)
  - Buildings are built on high slope (> 10 % grade)
  - Are there slope stabilisation programmes in the community?
- Situation of community near streams that may contribute to flooding
  - River bank, no elevated structures
  - River bank, but with elevated structures
  - Flood plain
  - High ground
  - Are there river management or river protection activities in the community or upstream?
- Other natural assets: coastal areas...

### **X. Ability of community to connect with other relevant stakeholders**

- Who has the highest level of authority in the community and how well connected is the community with these authorities?
- What is the level of engagement of the community members in response, preparedness, mitigation activities managed by the local authorities?
- How does the community relate with the following groups: religious groups, civil society organizations, political authorities, businesses, others?
- What NGOs and local community-based organizations exist in the community? What are their areas of programming and expertise? Are these organisations engaged in risk management activities?

# Focus Group Discussion

## What is it?

A group discussion among selected individuals with specialized knowledge on a specific issue, guided by a facilitator. Although the discussion may focus on a specific topic, the group members may talk freely and spontaneously about the issue.



Focus Group Discussion, Indonesian Red Cross Society

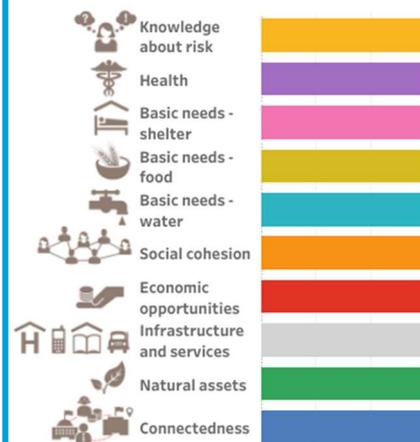


40-60 min (variable)



Paper for note-taking,  
audio/video recording device.

### Resilience characteristics covered:



Youth Focus Group Discussion, Ecuadorian Red Cross.

## Use it to...

- **Identify** causes of and possible solutions to risk related problems in a community.
- **Understand** how specific groups of people think about different risks and ways to address them.
- **Generate** discussion on a specific topic, such as family planning needs, road safety, gender participation, disaster preparedness.
- **Gain** a deeper understanding of risk related issues.
- **Gauge** the impact of activities eg. impact of health or disaster education on people's awareness.

## How to do it

### Step 1. Determine the purpose of the focus group discussion:



Depending on which stage of the assessment you are in, the focus will be either on specific hazards, exposure, vulnerability or capacity or on specific solutions. Focus group discussion can also be used to explore these issues with a gender and disability lens. For example, they can give information about the biggest needs for the different groups, special challenges they may have or differences in accessing services and information between groups.

Set clear objectives beforehand, this will assist you in selecting the most appropriate questions to keep the discussion going.

### Step 2. Decide who will facilitate the discussion:

Facilitators could be from the community itself or could come from outside the community. They need to be able to capture accurately the voices of participants, keep the group discussion focused on the topic, be able to manage group dynamics and mediate any discussions or conflicts that may arise.

### Step 3. Decide who to include:

Identify participants based on their role in relation to the specific topic and each other. To encourage confidence and active participation take into account the following considerations:

- Make sure the selection is based on a good understanding of community dynamics to ensure that those most vulnerable are included.
- The group should not consist of more than 8-12 persons and should reflect the diversity in the community.
- Conduct sex- and age-segregated FGDs to capture the inputs from males and females from various stages of the life cycle (i.e. children, adolescents, youth, adults and the elderly). This will ensure a free space for men and women to express their opinions.
- To ensure inputs from a varied representation of community members, separate discussions can be conducted with persons with disabilities (with organisations or their families). It is recommended that people with visual and physical impairments and family members of children with disabilities, serious mental and physical impairments can conduct FGD together.



People with hearing impairments should hold a separate FGD.<sup>5</sup> The selection should also consider different needs between men, women and age groups.

- If the participant's family is invited, always make sure to address the person with disabilities first before their family members.
- Separate discussions can also be held with groups that face discrimination or marginalisation who may not be able to participate equally in the community meetings without some accommodating measures. One example includes communities with both citizens and migrant populations.
- Consider gathering the elders – gender-separated if appropriate and needed – of the community to have a general discussion about changes over time or integrate these questions into usual focal group discussion topics such as livelihoods or health. You could ask children or youth in the community to interview the elders – that way they learn about it at the same time. Have discussions with both male and female elders, they may hold different types of knowledge, including traditional knowledge such as weather prediction techniques.
- Children, adolescents and young adults are going to experience the most change out of anyone in the community during their lifetimes. It is important that you gather not only information from them but also ensure that they participate both in discussions about change and the chosen strategies to deal with it.



**Step 4. Prepare a “question route” with 7-8 main themes you want to cover and the sub-questions that will help you gather the needed information on a topic and organise the session:**

Ensure that all questions are clear and easy to understand including for illiterate, intellectually disabled, and linguistically diverse persons. For more guidance on questions on the topics of gender and diversity and climate change see [here](#).



Organise sessions during times of the day and in locations that are suitable and accessible to everyone. Take specific measures to ensure the participation of adults, adolescents, workers, elderly, persons with disabilities, etc.

**Step 5. Select the recording method:**

Capture the discussion either by audio-recording or by taking thorough notes. If you are going to record the discussion it is crucial you seek consent to do so from all the members of the group first. It is advised that one facilitator leads the discussion and one or two note-takers focus on taking notes, to record verbal and non-verbal responses and interactions in the group. Even if you are recording the session you should still take through notes as a back up!

**Tip!**

The facilitator's role in a focus group is to stimulate and support discussion. It is not to be an expert on the issue. The participants are the experts, and the facilitator should be able to take a back seat and encourage everyone to participate and share information.

<sup>5</sup> [http://www.didrrn.net/main/front/files/EN\\_TL\\_Disaster\\_Risk\\_Management\\_2page.pdf](http://www.didrrn.net/main/front/files/EN_TL_Disaster_Risk_Management_2page.pdf)



### Step 6. Encourage equal participation.

Start the FGD by explaining to the participants why the FGD is taking place and what follow up and feedback they can expect afterwards.

Discuss and agree on confidentiality in the FGD assuring the group that individual participants will not be identified in the report but that responses will be anonymised. Only the demographic of the group will be reported e.g. women FGD aged 25-55 years.

Some people tend to dominate discussions. Therefore, take steps to engage the less talkative with prompts such as 'Can we hear from someone who has not spoken yet?'

Keep the discussion flowing, focusing on the defined objectives and the guide questions. It may be necessary to guide the participants by using phrases such as: *"Interesting point, but let's stay focused on the issue, which is..."* or *"That is a valid point, but we should discuss it later during another meeting."*

### Step 7. Summarize the points made

Try to wrap up the main points discussed and seek the participants agreement. It is important to capture divergent opinions within the group. Acknowledge that there are differences of opinion that all are valid and take notes on these areas of difference and ensure they are analysed.

### Next steps

Cluster similar answers into information about hazard and exposure or about vulnerability and capacity into the [resilience characteristics](#) (see tables below) and identify the main similarities and differences in the points raised by the participants and identify topics that need to be further explored either through secondary sources or another tool.

Hazard	Level of exposure (elements)

<b>Resilience characteristics</b>	<b>Vulnerabilities identified</b>	<b>Capacities identified</b>
Knowledge about risk		
Health		
Basic needs – shelter		
Basic needs – food		
Basic needs – water		
Social cohesion		
Economic opportunities		
Infrastructure and services		
Natural assets		
Connectedness		

### **Constraints and pitfalls**

- Language differences among participants can make this type of tool very difficult to use and should therefore be considered in the division of groups.
- Focus group discussions may not be appropriate for sensitive topics on which community members may not want to share their thoughts, feelings and opinions openly. This may include topics such as sexual behaviour, gender-based violence or stigmatized issues. In such cases, smaller group discussions or one-on-one interviews would be more appropriate.
- Please remember that this tool might not be suitable for all relevant issues; for example, it might not be good to discuss issues linked to crime in a certain area with a large group as people might be too intimidated to discuss key issues freely.

# Semi Structured Interview

## What is it?

A form of guided interview in which only a few questions are decided upon ahead of time. This interviewing technique can be used both to give information (such as raising awareness about tuberculosis) and to receive information (such as finding out what people know about tuberculosis). Interviews can take the following forms:

**Key informant interviews** – with people who can provide specialized information which might not be known to the general community, for example the village nurse or doctor.

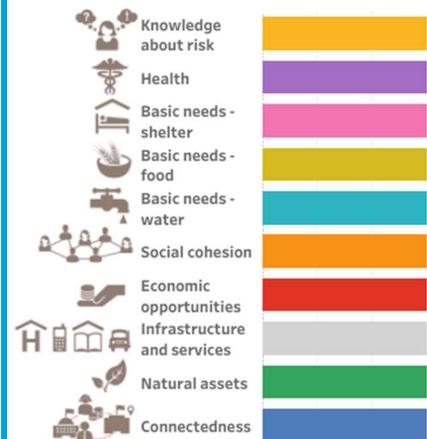
**Individual interviews** – One-on-one interviews are useful when the subject is sensitive or difficult to talk about in groups and also provide individual perspectives.

**Group interviews** – Used to gather information about the community from a large body of knowledge in a shorter time. However, care needs to be taken not to cause tension by raising sensitive issues in a group setting.

 40-60 min (variable)

 Paper for note-taking, audio/video recording device.

### Resilience characteristics covered



Nicaraguan Red Cross Volunteer with community member.

## Use it to...

- **Gain** a deeper understanding of the issue, values and attitudes based on the information shared by the respondent.
- **Collect** supplementary information for other tools, for example the historical profile can be elaborated with data collected through interviews.
- **Allow** for more flexibility in the questions asked than with a standard questionnaire. It is less one-sided, as interviewees are able to ask questions of the interviewer as well.
- **Discuss** sensitive issues when people are interviewed by themselves, particularly if the interviewer is not from the community. This tool also allows direct contact with potential beneficiaries.

## How to do it:

### Step 1. Decide who will do the semi-structured interviews

It is recommended to create a small team of interviewers, generally of two to four people from the team, they could be from the community or outside of the community. If possible, have women interview women and men interview men. It is advisable that interviewers have previous experience conducting interviews to make sure appropriate and relevant questions are asked, that the conversation is focused on the issue and that information is recorded.

### Step 2. Decide who will be interviewed and how the interview will be done

When identifying who in the community would be valued 'key informants' ensure to reference your secondary data analysis and community profile, as well as observation of the community. The FGDs and implementation of other tools may also reveal issues that would require follow up with a key informant in the community. It is therefore suggested to leave time at the end in case discussion topics need to be further explored in depth.



Individuals who hold higher rankings in the community or who are in respected positions may come from a similar demographic and social group. Therefore, it is likely that you may miss certain informants across gender and social groups. It is important to interview a range of key informants such as police, health workers, fisherfolk, traders etc.



For example, these specific groups may know if anything 'unusual' is going on in relation to disaster events, agricultural production and health. Think about how women and men might be affected differently by different weather patterns and may have insight into changes in different ways. It is therefore important to consider including people from a diverse range of livelihoods and roles within the community in the semi-structured interviews.

### Step 3. Decide on the topic and questions guide:

Prepare an interview guide and some questions in advance to ensure that all areas are covered. Consider the data that you need to collect in order to have a full picture of the community, use the [resilience characteristics](#) as a guide to find out about vulnerabilities and capacities. Is there any

information that you need to collect to triangulate with other tools? Are there any gaps in the information that you can address through interviews?

Before interacting with the respondents, interviewers can practice interviews with each other and/or with a few community members to test the questions, get familiar with the questions and receive feedback on their two-way communication skills.

#### TIP!

Try to avoid questions that lead to “yes” or “no” answers. Instead, use “open questions” which usually more effectively stimulate discussion and give a picture of what is affecting a community. For example, asking a community whether they know if the “climate is changing” might be unfamiliar to them. But asking them about their agricultural practices and traditional knowledge and how the present situation and patterns compares to the past might help reveal useful information about changes in seasons. It can also be useful to use other tools in conjunction with interview questions (such as observation and secondary data) to confirm or adjust the assumptions that you are making.



For more guidance on questions on the topics of gender and diversity and climate change see [here](#).

#### Step 4. Conduct the interview

Keep the interview informal and mix questions with discussion. Ask few targeted questions, which cannot be collected in a different way to keep the interview short and focused.

**Record the information!** During the interview write only brief notes, to help build the interviewee’s trust. Elaborate on your notes immediately after the interview so that you do not forget key details. With consent, you could video- or audio-tape the interview, however, people may be reluctant to be recorded.



*Philippine Red Cross volunteers with community member.*

**Step 5. Analyse the information**

Analyse the interview results at the end of each day, either with the whole team or individually. Cluster similar answers into information about hazard and exposure or about vulnerability and capacity into the [resilience characteristics](#) (see tables below) and keep the distinction between what is said by women and men and other different groups (you could add columns for different groups).

Hazard	Level of exposure (elements)

Resilience characteristics	Vulnerabilities identified	Capacities identified
Knowledge about risk		
Health		
Basic needs – shelter		
Basic needs – food		
Basic needs – water		
Social cohesion		
Economic opportunities		
Infrastructure and services		
Natural assets		
Connectedness		

**Step 6. Share and discuss the results**

Discuss the analysis with community members so that they can challenge the perceptions of the interview team, making the process even more participatory.

**Next steps**

Use responses from interviews to inform planning for intervention and triangulate information with other tools. If you have recorded the interviews and the participant agrees, playing the recording back to the participants can be a way of sharing the information with community members.

Team meetings can help identify similarities in responses. The information may also be useful to external parties, such as government officials and NGOs.

## Constraints and pitfalls

- Talking with people takes a fair amount of time. Make sure you allocate sufficient time.
- This method more than others can be heavily biased by the culture, gender and perspectives/background of the interviewer or the interviewee.
- Ensure that, in an individual interview, the interviewee understands and trusts that the responses will be confidential. If using a recording device, such as a tape recorder, mobile phone or video camera, be sure to ask the interviewee's permission.
- If the interview is being done in a group setting, people may interrupt one another, "help one another out" or not wait their turn. Or they may go off the topic completely. The interviewer will need good facilitation skills in order to manage the discussion and ensure that everyone has a chance to express themselves.
- A common failing among interviewers is to ask leading questions, i.e. questions phrased in such a way as to suggest the desired answer. Other problems that can arise are: failure to listen closely and record only the information that confirm biased assumptions; repeating questions; failure to probe when necessary; failure to judge the answers (i.e. fact, opinion or rumour) or generalising a personal opinion of few vocal individuals that do not represent the views/situations of a large share of the community; and asking vague or insensitive questions. These weaknesses can be improved with time and experience, by being self-critical, reflecting after each interview what went well, what could have been improved, what skills one needs to develop to get the respondents provide better answer to the questions or refocus gently the discussion...

# Direct Observation

## What is it?

Direct observation is a process of observing objects, people, events and relationships. It is used throughout the assessment process. It can be a very easy means of gathering data about how people interact with each other and how they go about their daily activities. Direct observation can be done individually or with community members.

When doing direct observation, you need to confirm that you have properly understood what you observe as it is easy to misinterpret what you are seeing.

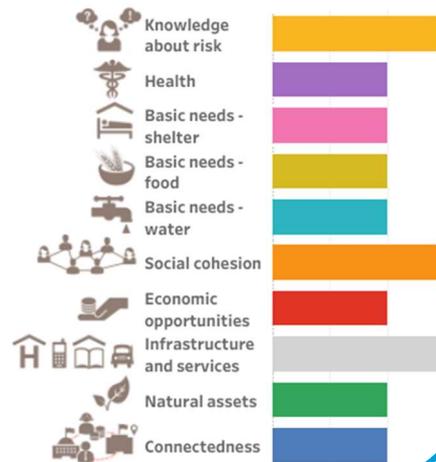


Constantly throughout the EVCA process and especially during the transect walk



Paper and pens or tablet for note-taking or camera

### Resilience characteristics covered:



## Use it to...

- **Document** behaviour, physical aspects of a community and activities.
- **Fill** in information “gaps” that cannot be filled through other tools.
- **Support** observations and conclusions made while using other tools.
- **Helps** the VCA team to **understand** the context in which the information is being gathered, to validate the conclusions made through the use of other tools and to gain a more complete understanding of the community and the relationships between its members.
- **Describe** things that may be hard for participants to verbalize.

## Skills needed

The **facilitator** should remain alert at all times in order to observe the surrounding environment, staying aware of possible biases and making sure information collected in this way is cross-checked through other tools. Skills in systematic recording of information are very important.

## How to do it

### **Step 1. Decide what areas you are going to focus your observations on and how you will proceed.**

While you should always be doing **informal** observation, you will still need to make a list of things to look for specifically, keeping the resilience characteristics in mind. Such a list might include:

- **Social cohesion: Demographic information**
  - Distribution of the population (age, work, gender, ethnicity)
  - Daily routine (school-aged children in school, adult present with children at home, working in the fields)
  - Family structure (nuclear or extended family present, child-headed households)
  - Community interaction
  - Presence of formal or informal networks in the community
  - Perceived level of safety in community
  - Presence of vulnerable or marginal groups.
  - Religion – churches, mosques, temples, etc.
  - Recreational activities
- **Healthy and Basic Water needs:**
  - Sanitation (sewers, availability of running water, functionality and type)
  - Typical sanitation in use by individual families and communal sanitation facilities, practice of hand-washing
  - Distance people have to travel to health centres
  - Animals in the street, mosquito breeding areas (ponds, water logged areas)
  - Water source for community and distance to be traveled
  - Quality of the drinking water source

- **Basic Shelter needs and infrastructure**
  - Basic house construction type
  - Other prominent construction types in the community (describe)
  - Emergency shelter condition and construction type
- **Basic Food needs: access, availability and utilisation**
  - People's eating habits (what and how people acquire, transport, store, prepare and eat food, observing which family members eat first or the most nutritive food, observing hygiene practices around food preparation, knowledge of nutrition, food taboos...)
  - Where do people shop? What is available or what items are cruelly lacking in the surveyed area?
  - How families acquire their food?
  - Typical food types consumed (crops, livestock...) in the last 24 hours
  - What is the current food situation in the community?
  - Who appears to be most food insecure?
  - Occurrence of in-kind food or vouchers availed in the community for short-term emergency assistance; if possible observation of cash cards provided by an agency that is used to procure food
  - Current food reserves at family level
  - Current food reserves at community level (shops, food banks, warehouses, programmes, etc.)

#### **Economic opportunities**

- Main types of livelihoods/income sources of community members at the time of observation
- Level of employment of community members (perception of the absence of certain family member that might have migrated to find work or follow their livestock)
- Engagement of community in formal and informal economy
- Current access to natural and physical assets: land (for cultivation, pasture, fish farming), rivers, forests, productive assets (tools, machines for agro-processing, business assets...). Observe their quality or level of use as it can reveal important information
- Current access to financial services (existing/active saving and loans groups, microfinance institutions, banks, moneylenders...)

#### **Infrastructure and services**

- Types of housing and other infrastructure
- Access to services (doctors, nurses, teachers, government services, extension services, etc.)
- Construction materials, design and proximity of buildings
- Types of roads
- Green spaces and playgrounds
- Sports facilities

#### **Natural assets**

- Trees: type of vegetation, deforestation
- Grade of slopes:
- Situation of community near streams that may contribute to flooding
- Other natural assets

**Step 2. Assign tasks.**

Make sure that all members of the VCA team are assigned to observe certain things, although all members should be observing all aspects as well. By assigning specific areas to different team members, you will ensure that all aspects are covered.

**Step 3. Observe and record the data.**

You should be constantly observing, whether in a structured way or informally, so always take notes and instruct everyone else to do so as well. Be careful to note everything you see. It is equally important that you record under what conditions you observed things and as much detail as possible. This will help the team to remember the context and increase the validity of the observation. For example, a crowd will behave differently at a soccer match than when shopping in a market.



When observing the community, take the opportunity to talk to both men and women. Understand the problems from both male and female perspectives, taking into account factors such as age, disability, socio-economic status, ethnicity, etc. Observe any differences in access to services or in the hazards and risks facing men and women in the community.

**TIP!**

Be careful how you act and be sure that you are discreet when observing people. If you are observing a formal event, seek prior permission. If you want to take photographs or audio-tape it, request permission from the participants to avoid potential misunderstandings.

**Step 4. Summarize the information.**

At the end of the day, all notes should be put in a clean and concise format. This should be done by each individual so that the entire group will be able to understand the observations made during the data systematization and analysis process. Record the observations in the community map and/or a summary table with each of the six characteristics of resilience (see example below).

Resilience characteristics	Coverage of characteristic by tool	Example of information that can be collected	Vulnerabilities identified	Capacities identified
Knowledge about risk		Knowledge and understanding of risk and climate change, location of risk areas, e.g. flood zones, landslide risk areas, dangerous roads with high frequency of accidents, safety of evacuation routes and safe zones, etc.		
Health		Use of health facilities, maintenance of water point, use of latrines, practice of hand-washing and garbage disposal, health and eating practices		
Basic needs – shelter		Type of houses, houses located in high risk locations, identifying weak and strong structures, risk reduction features (e.g. on stilts, earthquake proof, hurricane shutters...) fire risk (bad electrical wiring, open cooking fire, etc.		
Basic needs – food		Frequency and nutrition of food eaten (by gender and age group), use for cooking stoves, hygiene standards at restaurants and food stands, etc.		
Basic needs – water		Maintenance and distance of water points, quality of drinking water source, practices (boiling, filters, etc.)		
Social cohesion		Community interaction, biases, presence of formal or informal leader and networks in the community, anti-social behaviour, violence, crime, etc.		
Economic opportunities		Knowledge of alternative livelihood skills, knowledge of climate smart agriculture techniques, access to training centres, access to financial services		
Infrastructure and services		Access to services by different groups, quality of roads, bridges, drainage, electricity outages, quality of structure of hospitals/clinics and schools and if they are in risk location and have safety standards in place.		
Natural assets		Status of rivers (pollution), coastal erosion, mangroves and forests management, protected zones, green zones/parks, etc.		
Connectedness		Access to government offices, trust in governance structures, trust in RC/RC branch, distance to nearest city/centre.		

## Constraints and pitfalls

A challenge with this tool is that it is very subjective. Interpretation of information may be biased and is subject to change. The results of this activity should be verified later by the community. Careful recording and systematization of the information will contribute significantly to proper verification of the information by the community.

It is important to be respectful, as in many cases you are observing people without their knowledge. If you are observing a meeting or activity you must ask the participants' permission to do so.

Like any other tool, direct observation requires careful planning and must follow basic research rules. It also needs to ensure that the people observed are representative of the overall population.

If direct observation is not carried out with discipline, it can be hard to systematize and analyse the data collected.

### Additional resources

- The [3CA toolkit developed by CADRIM](#) page 53-59 has good recommendations for doing direct observation and analysing the information.

## Next steps

Cross-check information observed through the use of other tools such as interviews.



Think of the information you have gathered in from external sources on changes in climate and also interviews you have had with elders. Are there any obvious signs that changes are taking place? Can the elders or other key informants point out changes that have occurred over time if they aren't obvious? (e.g. land by the sea may have eroded away, new, higher flood levels, different crops being eaten or sold, etc.).

**Remember:** changes in general are good to note, you can have a discussion once all information is gathered as to whether the changes may be attributable to climate change or not.

# Resilience Star

## What is it?

The Resilience Star is a participatory tool that is used to produce, consolidate and analyze information about the vulnerabilities and capacities and risk of a community or group along the six characteristics of the IFRC Community Resilience Framework, and present that data visually in a manner that promotes community ownership and planning.

## Use it as...

- **An assessment tool:** To identify and compare capacities and vulnerabilities to hazards, shocks and stresses for each of the characteristics of resilience – see EVCA steps 6-7
- **A tool for analysis:** To summarize, triangulate and analyse information on vulnerabilities and capacities previously gathered through the other VCA tools and secondary information according to the characteristics of resilience – see EVCA step 7



2-3 hours



Paper and pens, different coloured cards and star

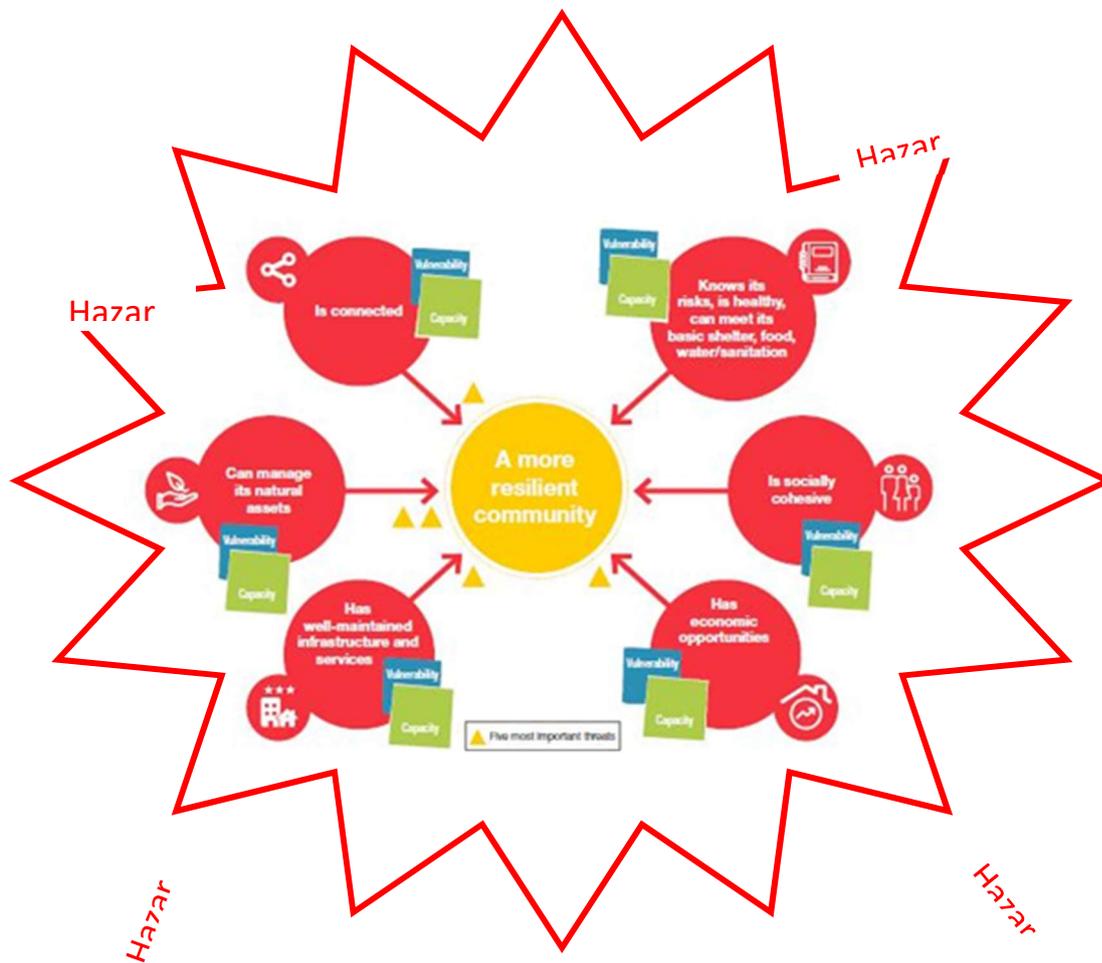
### Resilience characteristics covered:



Bangladesh rural: Resilience Star in Gaibandha (for Swiss Red Cross, 06/2017)

## Skills needed

The **facilitator** needs to be able to capture accurately the voices of participants either by recording and then transcribing what they say or by taking detailed notes. The facilitator should also be able to keep the group focused on the topic, manage group dynamics and mediate any discussions or conflicts that may arise.



## How to do it

### Step 1. Determine who will participate



Invite a group of maximum 20 participants that are representative of the composition of the community for this discussion. In many contexts it will be beneficial for open discussion to separate women and men in different groups with facilitators from the same gender. Note that all subsequent steps will be the same for each group.

### Step 2. Agree on priority hazards

If you have not already identified the top hazards or threats in previous exercises (step 5.1), brainstorm what are external factors that pose a threat or hazard to the community. Also consider how these threats might change in the future under a changing climate.

Agree on the top three hazards/threats (e.g. floods, drought, cholera) and write or draw them on note cards to be placed on the top of the flipchart.

You can consider all three hazards together or divide into three groups and assign one hazard per group so that the initial discussions on vulnerabilities and capacities for each resilience characteristic can be more specific to that hazard (e.g. how shelter needs are affected by floods is different from shelter needs during heat waves; or how well a community is connected to partners and networks for dealing with cyclones might be different than connectedness to stakeholders for droughts). All subsequent steps will be the same for each group.

**Step 3. Prepare the resilience star**

Draw the outline of the resilience star as seen above. The star can be placed on a wall or the ground and painted or drawn on several pieces of paper.

Place six bands (each 2.5 meters long) or draw six lines in the shape of a spider web or star: they connect in the middle, and form evenly distributed radials. In the centre, place a circle (about 50cm in diameter) that represents the community. Write “a more resilient community” on the circle.

At the outer end of the radials, place small red circles (25 cm) that symbolize the six characteristics. Write or draw the characteristics on each of these circles. Use symbols and drawings for communities with high illiteracy rate or when discussing with children.

The first characteristic (knowledgeable, healthy and can meet its basic needs) can be separated into 3-5 sub-components to facilitate easier discussion and data analysis. This makes it less unwieldy, for example: 1a) knows its risk (and can meet its education needs), 1b) can meet its basic shelter needs and), 1c) is healthy and can meet its basic food and water and sanitation needs.

If participants prefer, the exercise can also be done and presented in a simple table format:

Hazard(s)	Characteristic of resilience	Vulnerabilities	Capacities	
e.g. flood	Knowledgeable			
	Healthy			
	Basic needs: Food, Water, Shelter			
	Social cohesion			
	Economic opportunity			
	Infrastructure and services			
	Natural assets			
Connected				

**Step 4. Introduce resilience and the characteristics of community resilience**

Now introduce the logic of the Star to the group. Explain resilience: “the ability of individuals, communities, organizations or countries exposed to disasters, crises and underlying vulnerabilities to

anticipate, prepare for, reduce the impact of, cope with and recover from the effects of shocks and stresses without compromising their long-term prospects” Explain that you would like to discuss with them the elements that the community needs to be resilient.

Briefly introduce the resilience characteristics one by one. Ask the group to translate and contextualize the characteristic (E.g.: what does “is healthy mean to you”). Add translations and key definitions on each red characteristic card.

### **Step 5. Discuss vulnerabilities and capacities for a specific characteristic**

Introduce the green cards (capacities/strengths) and blue cards (vulnerabilities/gaps). If you have not discussed vulnerabilities and capacities before, remind people about the concepts and give examples (see [key terms](#) in Step 4).

Start with one of the characteristic and discuss vulnerabilities and capacities in relation to the specific hazard(s) that the community faces. You can do this together with the group by reviewing findings from other VCA tools and sorting them according to vulnerability and capacities by the resilience characteristics. It can also provide a chance to probe and discuss in more details further vulnerabilities and capacities that might not have come out yet before:

- Discuss and write vulnerabilities on blue cards and also place them on the band, starting on the outside (working inwards).
- Discuss and write what capacities the community has on green cards and place them close to the inner circle (working outwards).

For example, for ‘Knowledgeable about risk’ in relation to flood, discuss “How do people know when and where it will be flooding?” A vulnerability might be “no local early warning system” while a capacity might be “we know from the community mapping exercise that streets A and C by the river always flood in August” and “the school educates children not to cross the road when its flooded due to strong currents”. Or for shelter needs a vulnerability might be “some of the old houses in street C might collapse in a flood” while a capacity might be “we have a local by-laws that prohibits building new houses on street A” and “families from houses on street C are usually helped by volunteers to evacuate to the cyclone shelter “.

Or for ‘economic opportunity’ and drought, a vulnerability might be “maize harvest in March is often poor due to lack of rain”, while a capacity might be “lead farmers have been trained by agriculture extension workers on conservation agriculture techniques” and “some people also have vegetables gardens that have drip irrigation.”

For each characteristic the community then notes down what are the key vulnerabilities or weaknesses (blue cards) as well as their capacities (green cards). Ask them to write or draw them on cards (one card for each point) and place them next to the relevant characteristics. Sometimes a specific vulnerability or capacity can be related to more than one characteristic. You can show this by drawing lines to connect them. Displaying and comparing all capacities against vulnerable like this can help with the synthesis and prioritization of key issues to be addressed.

**Step 6. Repeat with all the characteristics**

Repeat the above for every characteristic.

**TIP!**

Try to avoid questions that lead to “yes” or “no” answers. Instead, use “open questions” which allow people to elaborate on their responses.

**Step 7. Compare and synthesize results**

(If applicable) Compare the results of women and men and youth groups and let the groups discuss the similarities and differences and consolidate the findings.

(If applicable) If you have done the star separately for each key hazard, compare and synthesise the similarities and differences on vulnerabilities and capacities across the characteristics for the different hazards. This might help to prioritize critical areas of intervention. Note, please keep in mind that some capacities and vulnerabilities might be very specific to a specific hazard but can still be very important to address.

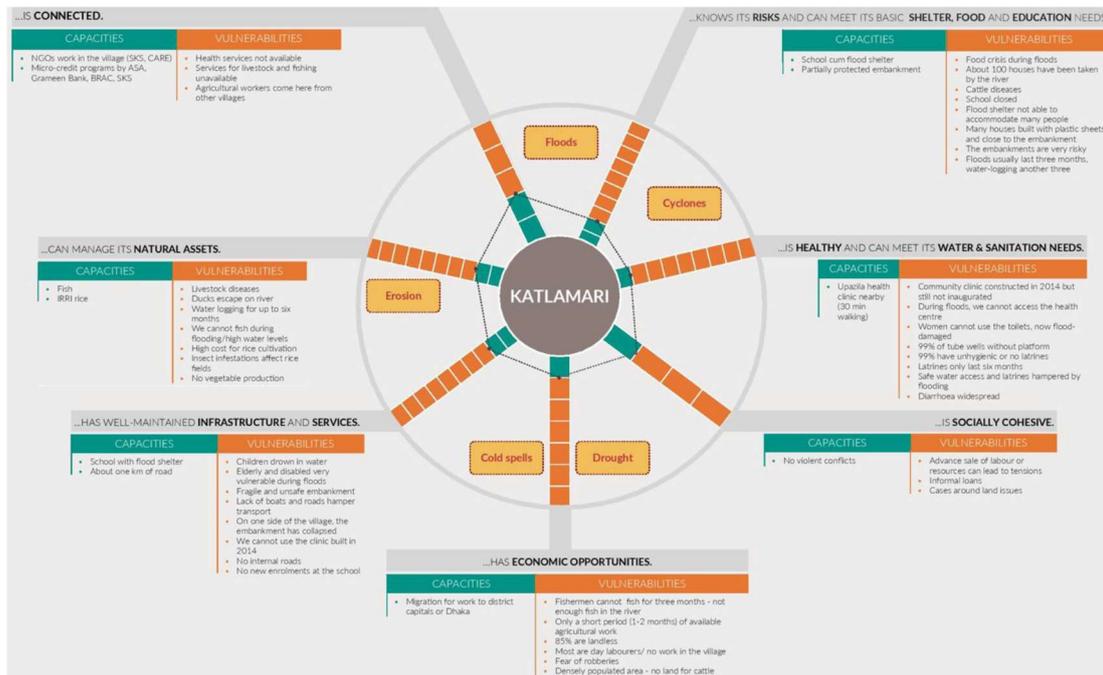
(If time is short, carry out this next step at a follow-up session during the planning meetings (EVCA step 8 or R2R Stage 3):

When completed, you can place the red circles with the characteristic in between the green and blue cards. This can symbolize how resilient the community is by showing how many vulnerabilities versus capacities the community has for each characteristic that makes them a more resilient community. This is just a symbol and not a real score (for resilience measurement tools refer to the Roadmap to Resilience Stage 2 – Step 5-9). Explain that the goal in the future is to reduce the number of vulnerability cards and add more and more capacity cards. You might ask: what would you need to do to move the red circles to the outside (having more capacities, less vulnerabilities) – thus raising resilience? To what extent can you build on capacities, to what extent can threats be addressed? This can be the starting point for planning.

**Step 8. Document the exercise**

Take a photo and type up the findings in a table or graphic (see picture below). Complete a brief summary.

**Digital:** for technologically savvy participants such as youth or in urban areas, this exercise could also be done online or documented electronically: e.g. conduct a survey on each characteristics via WhatsApp or slide.do or with a word cloud; or visualize the star electronically e.g. with mindmap (see picture).



Source: Patrick Bolte, Banyaneer for Swiss Red Cross

## Constraints and pitfalls

- Pre-prepare material for the making/drawing the 'star' (e.g. pictures of the resilience characteristics, colour cards, arrows etc.). In communities with high illiteracy rate or when discussing with children, use symbols and drawings for the characteristics and the capacities and vulnerabilities.
- The exercise will require a team of three facilitators: one lead facilitator, one who writes and places the cards, and one who documents the discussion. Make sure that the facilitator understands the holistic nature of resilience and not just gears all questions towards DRR. The facilitator also needs the ability to contextualize the characteristics to the local context
- Consider conducting the exercise in separate gender groups for the initial round (and reconciliation)
- Split the first characteristic "Knows its risks, is healthy, can meet its basic shelter, food and water/sanitation needs" into two or even five sub-components (making it more manageable). Adapt characteristics as necessary to local priorities, for example some communities added to 'knows its risk' also 'can meet its education needs.'
- Don't worry that there are some overlaps and back and forth discussion between the characteristics. For examples discussions on 'can meet its water and sanitation needs' might lead to discussion on 'well maintained infrastructure'. Distinguish between household level needs and community/government level infrastructure. Capture key points dynamically as they are being raised under the relevant characteristic and you can also draw lines or put strings to show the connection.



## Use it to...

- **Assess vulnerabilities** by analysing the cause and effect of a hazard or problem
- Identify the various **impacts** of a hazard or problems and additional potential long-term effects
- Understand the **root causes** that need to be addressed to reduce vulnerability.
- It can also be used in the planning phase to create a solution tree to help find the solutions to the problems identified through the problem tree

## When to use it

Since this tool dives deeper into root causes of the issues in the community it is advisable to use it at a later stage of the assessment after some of the main problems have been identified using other tools. In conjunction with the solution tree it can be used during the planning phase to identify solutions to reduce vulnerabilities.

## Skills needed

The **facilitator** needs to be able to accurately capture and synthesize the information provided. He or she should have good analytical skills in sorting and grouping similar issues and helping to identify connections and linkages between issues. Most importantly he/she needs to be good in asking probing questions such as 'So what' and 'Why'?



The facilitator should have an understanding of the role and relationships of men and women and marginalized groups in the community to help participants identify differently impacts and root causes that might relate to unequal existing social structures.

## How to do it

### Step 1. Assign a problem or hazard to the group

- From the problem prioritized from the problem ranking tool (see step 5.3 in the EVCA), take each problem separately for a detailed analysis. From the information gathered through the use of other tools and interviews, various concerns and problems will have already been identified. Write down each of the major hazards on a separate piece of paper and then tape these on the wall (people can draw problems if they do not know how to read and write).
- Divide participants into groups and assign one hazard per group. If you have divided groups already by gender or other grouping, you might ask each group to focus on one specific problem that they would like to prioritize first or ask each group to work on all top hazards at the same time. Another option is to ask groups to rotate (world café style), so they can add onto what the previous group already wrote down and each group gets the opportunity to work on all problems.

### Step 2. Determine how to divide the groups and participants



- It is critical that all participants get the chance to express the problems they find important. Depending on the context, it is recommended to first prepare separate trees for problems identified by women and men, as well as by different age groups and other groupings deemed important through the process of the EVCA.<sup>6</sup>

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<sup>6</sup> Gender and diversity sensitive VCA, p. 21.

- For example you could also divide participants into livelihoods groups (industry labourers, traders, farmers, etc.) or other subgroups (poor people, rich, medium) as their problems and vision of the situation may be very different.
- Young people might not feel free to talk when included in groups with adults but it's important to consider their point of view about problems and solutions, as they might have a different outlook on the future.
- At the end the separate trees can then be compared and analysed.



Example of a FGD using a problem tree with women as part of a VCA in Mwenezi by Zimbabwe Red Cross Society

### Step 3. Draw a problem tree

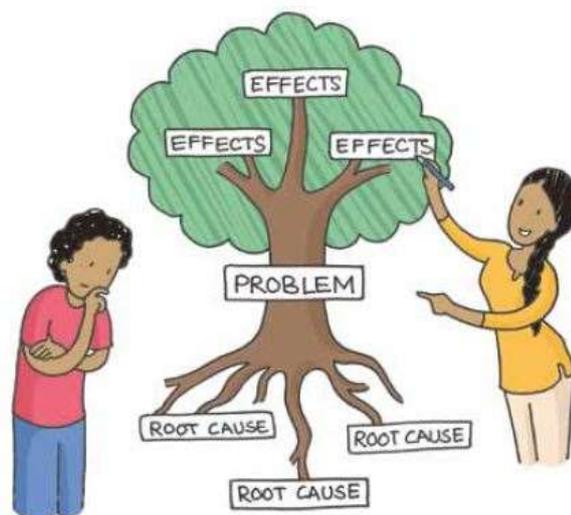
Now ask each group to start drawing a “problem tree”:

- The trunk represents a problem (or hazard or threat),
- the branches and leaves are the impacts and effects
- the roots are the causes.

The problem tree can be drawn on a flipchart or with digital tools like MindMap or Mindmeister on a laptop or computer.

#### 3.1 Identify impacts

Discuss ‘**How is it affecting us?**’ Each branch can branch out in many further impacts that



Maldivian Red Crescent VCA Toolbox

are resulting from the first impact and even long-term effects. Keep probing: So what? Then what? Are the impacts the same for everyone? Are there specific effects for women, children, and people with disabilities?

### 3.2 Identify causes

Ask the participants to discuss the possible causes to the problem '*Why is it affecting us?*', what is causing the problem? There could be more than one cause to the main problem and each cause should be listed on a separate tree root. Based on the first level, the participants are to take each of the causes and underlying issues leading to this. This would provide a further level of causes. This process can be done until, a root cause is identified. This is observed when the participants feel that there are no more causes beyond what they mentioned.

These will develop dynamically as participants discuss the issues. As facilitator you should encourage people to probe further.

- When discussing the impact and root causes of the hazard in the community, you can use the [resilience characteristics](#) as guide to explore the different aspects of the problem. For example, what is the impact on people, on health, on their basic needs, on livelihoods and economic opportunities, social structures, infrastructure & services and natural assets. What are the underlying vulnerabilities for example in terms of health, who is more vulnerable, what is their reliance on certain types of livelihoods, is there a lack of quality of infrastructure and services, degradation of natural resources etc. that are contributing risk factors (see example in table below)?
- If possible, try to cluster the roots (causes) and branches (impacts) by the characteristics of resilience. However, you might also find how they are interlinked, for example a direct impact of a drought might be scarcity of water (basic needs), which might lead to livestock death (economic) leading to a conflict over scarce water resources (social cohesion).

#### Tip!

Try to reflect on the six characteristics of resilience when considering the different impacts and root causes in relation to the hazards.



- As mentioned above, be sensitive about facilitating discussion about underlying vulnerabilities and root causes that might relate to social and cultural structures. These are important to identify and might require further dialogue.



- Beware of not letting the discussion and participants “jump to conclusions” and just blame any hazard on the climate or climate change.<sup>7</sup> For example, increased flooding might be in part due to more intense rainfall events but there might be many other contributing factors that lead to a flood event. Verify from secondary sources what are the observed climatic changes in the area,

<sup>7</sup> Suggestions for VCA adaptation – for tools and approaches, 2016.



Health	impacts on health including death, injury, psycho-social health.	Different health impacts depending on age, gender and disability; limited awareness on sanitation and personal health; limited access to health care support
Basic needs- Shelter	impacts on houses and other shelter types	poorly build houses, no adherence to building codes, no emergency shelter, etc.
Basic needs - Food	impact on food security and nutrition	limited awareness on nutrition, no safe storage
Basic needs - Water	impact on quantity and quality of drinking water and sanitation	no protected water sources no filtration,
Social cohesion	Impact of disasters on family and community relations and support networks, different impacts depending on gender, age, disability or ethnic group; stress and violence due to psycho-social impact, conflict over scarce resources,	unequal existing social structures that might be the root causes for different impacts on men and women; limited coping capacities, weak community governance structures, etc.
Economic opportunity	impacts on livelihood such as crops failure or livestock death, impact on business and trade, debt	limited coping capacities, lack of alternative livelihoods, lack of access to savings and loans, lack of livelihood protection and adaptation skills
Infrastructure and services	impact on infrastructure e.g. destroyed bridges or damaged schools, disruption of services,	weak support services, no adherence to building codes for public infrastructure
Natural assets	destruction of natural assets	lack of natural resource management and protection
Connected	loss of mobile connectivity, cut-off from support	remote location, limited support from organizations, limited influence

## Constraints and pitfalls



- When discussing the causes in the problem tree, beware of not letting the discussion and participants “jump to conclusions”. Keep probing. Don’t let participants just blame any problem on the climate or topography. Probe for other underlying vulnerabilities that causes people and assets to be affected.
- Be respectful of belief systems. When asked why people think changes are occurring, often they might say ‘because we have done something bad’ or ‘God is punishing us’ or are ‘Acts of God’. This kind of explanation can lead people to believe that things will soon return to normal or even worse, to fatalism or inaction. It is important to consider people’s belief system and discuss other explanations and causes in sensitive ways. Most religion and belief systems do have stories that emphasise the importance of humans using their intelligence to take action<sup>8</sup> and have respect for nature.
- It is important to determine whether the different groups of people perceive the problem in the same way, if not, the problem might need to be reformulated. As a facilitator, be conscious though that the views by marginalized groups do not get dismissed by more dominant groups or participants.



<sup>8</sup> For example, an Arab Proverb says “Trust in God but tie up your camel”

## Variation: Solution tree

### What is it?

A solution tree is an activity we can use to help us find the solutions to the problems that we identified through the problem tree; in this way we are able to visualize our desired future situation for our community. Based on the solution tree, the community would be able to develop its action plan (EVCA Step 8).

### Use it to...

- help find solutions to identified problems
- identify capacities that can support these solutions
- develop objectives and activities for community led projects
- visualize desired outcomes

### How to do it...

#### Step 1: Brainstorm ideas to solve the problems

Review the problem tree or other tools that identified main problems. Start by picking one of the priority problems and turn it into a positive statement. For example 'lack of drinking water' becomes 'availability of adequate drinking water.'

On pieces of paper ask everyone to write or draw our individual ideas of the different activities and actions that they believe can contribute to solving our problems. Those participants who cannot read and write can present their thoughts through drawings. Stick these pieces of paper on the wall. Identify all those that are similar or are related and we group them together.

#### Step 2. Construct a new tree of solutions where:

- the solutions are represented in the trunk
- the actions to reach these solutions are in the roots.
- the positive results or consequences we wish for our community are in the leaves.

#### Step 3: Review and reflect with the participants:

Reflect on the following questions and make changes accordingly or decide how and who will get additional required information:

- Do we believe that the solutions are correct? What additional information or expertise might we need to check and develop them further?
- Have we considered the opinion of women and men, girls and boys? Do the objectives meet the needs of both men and women, and the needs of the most vulnerable? How can women, men, boys, girls, people with disabilities participate in the activities?
- Do no harm: could the proposed activities have negative consequences for other groups or communities? If yes, how could that be mitigated?
- Have we taken into consideration changing and emerging risks? Are the solutions and activities still going to be sufficient in the future (e.g. take into consideration changes in average conditions like sea level or temperatures, or changes in the frequency and severity of the disasters)? Would the proposed activities harm the environment or natural resources?

#### Next steps:

From the above information you can develop a theory of change, and turn ideas into community action plan or project plan with objectives, outputs and activities.

<b>Resilience characteristics</b>	<b>Coverage of characteristic by tool</b>	<b>Impacts, causes and solutions related to the characteristics</b>	<b>Vulnerabilities identified</b>	<b>Capacities identified</b>
Knowledgeable about risk				
Health				
Basic needs- Shelter				
Basic needs - Food				
Basic needs - Water				
Social cohesion				
Economic opportunity				
Infrastructure and services				
Natural assets				
Connected				