Step 3 Community participation

Part 1b of the CEDRA Assessment

As well as researching scientific information, it is extremely important to gather local knowledge to understand the climate and environmental impacts that communities have suffered, and to explore with them how they have responded to or adapted to these impacts. It will also enable you to think about how your scientific findings can be used to help local communities and to test whether scientific findings match their experiences. Step 3 will also help you build stronger relationships with the communities with which you work. The consultation process is also a good opportunity to spend time raising communities’ awareness of climate and environmental change and their impacts.

3.1 Why consult local communities?

Local people have considerable knowledge about past changes in weather and the environment, including changes in local vegetation, eg forest, shrubs, grass, agricultural crops, animals, birds, fish, insects and other ‘natural resources’. They can usually advise on traditional plant species that are better able to cope with drought, flooding, salinity and so on. They will have experience about changing crop growth and pest and disease patterns, and will have traditional ways of dealing with these changes. They are the rightful stewards of the resources in their area and will have knowledge about impacts on water supplies, food security and health. They will also have opinions about the community’s ability to adapt to or cope with these changes. This will help in identifying possible future adaptation methods; the best methods are ones that communities lead and own for themselves.

In reality, your work will take place across many different communities over many years. The purpose of Step 3 is not to focus on just one community or to consult every community you work with. Bearing in mind the resources and time you have available, consult a number of different communities which you think are fairly representative of the geographical areas where you work – eg a community living in the hills, another on the coast and yet another in the forest or arid areas. In consulting quite different communities, you should be able to record...
very different types of climate and environmental impacts and community coping mechanisms. People’s ability to adapt is often referred to as their ‘adaptive capacity’. Adaptive capacity is explored more fully in Appendix B.

It is important to recognise that ignoring certain people’s views can lead to serious environmental hazards being overlooked. The following case study is a case in point.

**CASE STUDY**
Community project in Bangladesh

In Bangladesh, rural communities in coastal and riverside areas are regularly hit by cyclones. Without the benefit of a CEDRA Assessment, the community undertook a number of projects to try to cope better with the devastating impact of cyclones. They constructed a cyclone shelter, developed emergency evacuation plans and trained volunteers to help coordinate protecting important assets and evacuating people safely. Gradually, the community’s confidence about surviving a cyclone grew. During a recent project assessment, villagers confirmed that the project had been helpful. However, it also became clear that the more pressing priority had always been rather different: addressing the day-by-day erosion of their land due to sea-level rise and the consequent loss of livelihoods. Some community members had been aware of this, but no one had asked them to input into the initial project.

### 3.2 Keys to successful community consultation

For community participation to be successful, it is important to have the right approach. The following guidelines should help you prepare for consulting communities and help you answer the questions you wrote in Step 1.

- **Be prepared.** Ensure that you have a full list of questions prepared and that you have all the equipment you need, whether a camera to record pictures drawn on the ground or flipcharts and pens. Ensure you ask ‘open questions’, not ‘closed’ ones (which steer people
towards the kind of answers you expect). So, instead of asking ‘Is there less rain these
days?’, you could ask: ‘Has the weather changed at all in recent years?’

- **Be respectful.** This is not an exercise in extracting information from people. The
  community own the information and you are there to try to help them understand
  and adapt to climate and environmental change. Communities have a wealth of local
  knowledge and may know more about the environment or climate than you do. Community
  consultation is a relationship of equals in which we all learn together. Any drawings or
  information gathered remains the property of the community. You should leave it with
  them and ask if you can take photographs for your records.

- **Understand power dynamics.** No community is completely without bias. It is most
  helpful to ask to meet with different groups such as children then women then men. Share
  their feedback with each other afterwards. This can help different parts of the community
to better understand each other and sometimes leads to them developing their own
adaptation responses.

- **Be relational.** To ensure that this equal partnership is maintained, it is a good idea to
  choose a community with which you already have a strong relationship. Avoid giving the
  impression that you may carry out any projects in their community. Consider whether all
  groups of people can participate in your meetings – think about location, time and cultural
  restrictions. Are women, children, labourers, the elderly and minorities able to engage?
  Are there factors which may hinder these groups from taking part? In some contexts, for
  example, some women may not take part in activities because they do not have the time.
  For this reason, flexibility must be built in to the process to enable women to participate
  throughout. Allow them to choose the time and location that best suit them.

- **Share the work.** Assign roles to different members of your team(s) (eg observer,
  photographer, note-taker, questioners etc), so you share the workload. You could assign
  different questioners to ask about different environmental impacts. It is very important to
  ensure women ask women questions and men ask men, to encourage open responses. This
  may be a cultural requirement.

For more guidance, the ‘vulnerability’ and ‘capacity analysis’ and the ‘hazard assessment’
of Tearfund tool PADR, Participatory Assessment of Disaster Risk, are helpful for collecting
community perceptions. They can be found on pages 43–58 of ROOTS 9: Reducing risk of
disaster in our communities (see Appendix A). Agencies which have already carried out a PADR
assessment may find they already have community knowledge that can be used in CEDRA.
Further discussion on the use of community participatory tools is included in this Red Cross
Climate Centre information sheet: http://www.climatecentre.org/downloads/File/VCA%20
guidance/VCACC_forpractitioners_April2011.pdf  Tearfund’s Facilitation skills workbook
also provides detailed information on participatory techniques (see Appendix D). If your team is not
familiar with participatory approaches you could look for training courses, or invite someone
with skills and experience to teach you.
3.3 Participatory approaches

To answer the questions you prepared in Section 1.4, you should involve as many different community members as possible in a variety of participatory exercises. Try to include representatives from all sectors of the community (female, male, old, young, poorer, richer).

Participatory tools which could be used include:
- focus groups
- community mapping, including mapping of natural resources
- historical maps / pictures
- seasonal calendars
- historical timelines
- transect walks
- use of ranking / matrices
- power mapping

Examples and brief instructions on using these tools are included below.

CASE STUDY
Tearfund partner ROLEC’s experience in Malawi

During its CEDRA Assessment, ROLEC used participatory tools to ask communities about climate and environmental impacts and how they had coped with them. Villagers mapped their communities, and drew problem trees, seasonal calendars and risk matrices to understand the causes and impacts of climate and environmental change. This process helped them realise that some of the hazards they face are the result of human activities. They mobilised themselves to plant trees and they have asked ROLEC to work with them in constructing a flood-control dyke, built from sustainable local materials. ‘CEDRA is an eye-opener on our part as people in Nsanje district,’ said village headman Kachere. ‘It has helped us to develop action plans on the issues of our concern.’

Focus groups

Focus groups should represent the whole community. You could have one or several groups when you are asking them about the questions developed in Step 1. Perhaps you could separate into different groups men, women, children, the elderly, disabled, ethnic minorities or immigrants, or people with different livelihoods. Again, make sure those with least power are heard.

NOTE
If possible, use these tools first with those who hold the least power, eg children, then women, then men. In this way, you will hear their different views. Otherwise, the risk is that everyone will just agree with what the men have said.
Community maps

Community maps are very similar to the maps you drew of your work locations, in Section 1.2. You should ask the community to draw the maps, so that they are free to identify the geographical features, socio-economic features, climate and environmental hazards and responses that are important to them. By observing their mapping, you will be able to note which parts of the environment they are most dependent on, and which parts are thriving or degrading.

You will also be able to see what strengths or capacities they have to help them to cope with the hazards they face. This will help you understand how well the community can adapt to climate and environmental impacts. The community map may differ from the one you drew in Section 1.2 for several reasons. You may learn new things from the community that you were not previously aware of. Or there may be certain things that the community has misunderstood (eg ‘This river comes from the other side of the border’ when in fact its source is in an adjacent state of the same country). Or your maps may differ in interpretation (eg as regards the reason why trees have been planted in a particular area). These differences are all rich opportunities for sharing concepts and ideas between your team and the communities.

Mapping using computer-based geographic information systems

As mobile internet technology is becoming more widely available, local humanitarian and development agencies and also local communities are able to use a geographic information system or GIS to locate anything on a map precisely. It can then be made available to many others. For example, environmental hazards such as flood or drought zones or landslides can be mapped, as can specific infrastructure such as roads, waterways or electricity and telephone cables. Records of environmental change such as biodiversity loss or natural resource depletion can also be added. This technology is particularly useful because you can look at it on a computer screen and choose to view or hide different layers of images, showing, for example, where people live, different land use or ownership, or historical records of disasters. You can even overlay different projected changes, which helps you plan for uncertainty. For example, if scientists project that an area is to become much wetter or much drier, you can see images portraying the implications of both and therefore plan for multiple different scenarios. GIS mapping can also work very well when combined with participatory mapping.
CASE STUDY
GIS enabling poor communities to access clean water

In Sri Lanka, Indonesia and southern India, GIS technology was used to report burst water mains and contaminated drinking water (dug and tube) wells and locate them precisely on a map. This enabled the NGOs to plan a much better response to ensure communities had clean drinking water. This started with transporting water to affected communities by tanker, then focused on repairing key water supply pipelines and wells, until resources were available to repair or replace all drinking water sources.

Historical maps / pictures

Historical maps / pictures are very similar to community maps. The difference is that they map the community environment as it was at some point in the past. You should discuss with the community how far back they can remember and decide when would be a useful point in time to map. This may be, for example, the time before a disaster hit or before there was much migration into or out of the area. Drawing a historical picture can help you and the community see clearly the healthy and degraded parts of their environment.

Seasonal calendars

Seasonal calendars are another useful tool for helping you understand climate and environmental impacts on water resources, food security, livelihoods, health etc, and whether climatic extremes coincide with particular agricultural or livelihood practices. They also help you to understand how seasons and cropping have changed if you draw a second, historical one. This example (right) shows that droughts, floods and storms are having a significant impact on crops and migration.

Historical timelines

Historical timelines are useful for recording events that have happened over time, to work out which have the greatest impact, and to find patterns such as frequency of occurrence or increasing intensity over time. You can include anything that is significant to the community, but should be clear to ask about any disasters or significant environmental changes, such as...
changes in water resources, health, migration, biodiversity, food security, floods, droughts, storms, pollution or industrial accidents. Also, ask about what they consider their capacities or strengths to be (e.g., knowledge and skills, or alternative crops or livelihoods) and how these might have changed over time.

**Transect walks**

Transect walks are a helpful way to observe the environmental features of a community and also provide a useful semi-structured method of asking the community about their environment. A transect walk should be undertaken along a defined route, planned with the local community to pass through areas of different land use – preferably from one side of the community to the other. Participants should draw or note everything that they see directly on the line or up to an agreed distance on either side of it. You should include visible items such as slopes, water resources, tree cover, food and cash crops, residential land use and water sources, but you should also note people’s comments on issues such as soil fertility, waste disposal, crop failure, land tenure, weather, biodiversity or disease. Note also any comments made about environmental changes they have observed and how they have coped with them. A transect walk is usually drawn as a ‘side-on’ view (see example below) – as if you had cut away the land and were looking at it from the side.

**Ranking matrices**

Ranking matrices are a way of identifying which climate or environmental impacts have the greatest effect on communities. Activities are written along the top column (e.g., fishing, farming, school etc.), and known environmental impacts are listed down the side (e.g., flooding, drought, disease etc). The table is then split into rows and columns. If possible, children, then women, then men should be asked to give each impact a score against each activity. A low
score is 1, meaning there is little impact on the activity. A high score is 5, meaning the impact is considerable. It is possible to give negative scores, which means that the impact is beneficial. Instead of writing on paper, people could vote with stones on a grid drawn on the ground. Totals of the columns and rows are added up separately for men, women and children. For each group, the square at the intersection of the highest scoring row and highest scoring column is circled to show what the greatest issues are.

**Power mapping**

Power mapping is important because climate and environmental changes usually affect women and children most. They usually hold least power in the community, even though women are usually responsible for providing water, firewood, food and healthcare. Women observe changes in the environment closely and often have a greater understanding of the need to manage local environmental resources sustainably. When considering the local environment, it is helpful to list the environmental resources in the top half of the table and environmental benefits in the bottom half, and to draw two sets of columns where the community scores who has the greatest and least access to and control over those resources. Again, it is important to ask the children to do this exercise first, then the women, then the men, or there is a risk that those who usually have the least power will simply agree with those with the most power.

It is helpful to think through the results of this power mapping when considering the impacts of climate and environmental change on a community. Impacts will affect men, women and children differently, and be influenced by the power each group has. You need to be aware of these dynamics when using the information gathered from communities, and when you think about responses in Step 5.

During a CEDRA community consultation in India, the community explained in their mapping exercise that flooding was the worst problem. However, their seasonal calendar, timeline and risk ranking all indicated that it was unpredictable rainfall patterns that were having the greatest impact on them. Feeding this back to the community was very helpful to them.
3.4 Capacities and empowerment

Many people say that communities have a right to be told about the causes and future effects of climate change, because it is having an increasing impact on their lives. However, others caution that we should be careful not to fill them with despair about the future, or provoke anger towards governments or people from rich countries. They argue that it is also dangerous to raise awareness of climate change without providing solutions and opportunities for advocacy. Give some time to reflecting on these issues before you visit the community and think how you will approach the subjects sensitively. We suggest giving communities all the information but in a way that leaves them feeling empowered to act on the issues, with encouragement and hope about their future. You can help them by undertaking a capacity assessment with them (see PADR, page 47 of ROOTS 9: Reducing risk of disaster in our communities). All communities, even the poorest, have capacities which can help them adapt to climate change. You can also inform them about their rights and others’ responsibilities, which can help them develop advocacy responses to bring about the change needed.

Exercise 6
Carry out participatory exercises in one or more communities in each location that you identified in Exercise 1. This will help you answer the questions you developed about climate and environmental impacts. Think about the questions you want answered as you plan and carry out the participatory exercises. Refer to the participatory tools above.

Ensure that your community consultation includes gathering information on:

- coping mechanisms (how the community has coped with environmental and climate changes) and adaptation methods that have worked or failed in the past
- community capacities such as good governance and leadership or a church’s ability to mobilise volunteers (See Section 6.2 of ROOTS 9: Reducing risk of disaster in our communities)
- particular vulnerabilities community members mention, for example, a lack of capacity to plan projects, or opposition towards trying out new methods

Summarise your key community findings, including those that highlight new issues of concern to the community, and feed back your findings to the community. Sharing your findings with communities can help them develop their own adaptations.

The different assessments should be compared to check whether information is consistent or varies between groups. If there is conflicting evidence, feed this back to the community to see what they think has led to the difference of opinions. Compare this feedback with the answers you got from scientists and other sources in Step 2.

Write this information in Part 1b of the CEDRA Assessment, using the example below as a guide. Use both your scientific and community findings to update your list of causes and impacts developed in Step 1. You will later prioritise them and transfer them to your CEDRA Assessment.

Complete Part 1b of the CEDRA Assessment.

See the worked example on the following page.
### Example Part 1b of the CEDRA Assessment

Compiled by Tearfund Partner Consortium from the Diocese of Aru, DRC

#### PART 1b: Background information – Community experiences

<table>
<thead>
<tr>
<th>Location</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aru Diocese of Democratic Republic of Congo</strong></td>
<td><strong>Background</strong>: In order to gather the community experiences, the following techniques were used: field surveys, interviews, mapping, historical pictures, transect walks, seasonal calendars and focus groups – using separate groups for women, men and children. We consulted women in the village to advise on the time and location of activities that would best suit them, and tried to ensure that we heard the different views and perspectives of men, women and children, and of people belonging to different tribes, in all of the activities. We selected four villages, each in different Chiefdoms, in which to do our research. These villages represent approximately 10 per cent of the total area in which partners in the Consortium are working in the Diocese of Aru. A summary of the key issues arising is given below:</td>
</tr>
</tbody>
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- The scrub savannah and forest galleries are now over-populated. This is leading to savannah clearance and deforestation.
- People have good knowledge of all the plants and trees in the area and the conditions they all need in which to grow well. They know which plant and tree species have already disappeared and which are under threat.
- Because of the deforestation, the soil quality has degraded and it is also affecting water supply.
- Plant diseases have increased in recent years.
- Plant diseases, poor soil quality and lack of rains are resulting in lower crop yields, which in turn means less food is available for consumption. This is leading to an increase in malnutrition and hunger in communities. Young children and women are particularly badly affected.
- Men and women both talked about the climate now being ‘disturbed’. In particular, older people explained that temperatures have increased a great deal over the last 30 years.
- The community is increasingly experiencing drought. Fresh water sources in the locality, such as wells and springs, are no longer providing sufficient water. This is leading to increased workloads for women as they have to walk further, sometimes up to two or three hours, to find water.
- Villagers are seeing increases in diseases and infant mortality. The weakest people (in particular those living with HIV) are affected the most. However, there are strong extended family support networks in the village, and neighbours and villagers are supporting each other in caring for the sick.
- Deforestation and population increase have led to the disappearance of wild animals. (This was cited as a bigger problem for men than for women.)

| Village of Bita in the Lu Chiefdom | Migration, over-population and tobacco company expansion have led to loss of forests and scrub land. Local churches have developed afforestation schemes. Some of the women in the village are volunteering with these churches to help plant new trees.
- The river beds are shrinking, and communities are experiencing a shorter rainy season. There is less water available for drinking from local sources and therefore women are having to walk further to find water for drinking and household use. This is a major burden for women, and time that used to be spent on livelihood activities is often now spent walking in search of water.
- Wild animals are scarce due to deforestation and over-population.
- The agricultural calendar in the village has changed significantly. Before 1980, the rainy season was longer than the dry season. Now, however, the dry season is longer, substantially reducing agricultural yield. Men are working harder in the fields but the crops are reducing. Men have begun to harvest rainwater in containers in order to irrigate their fields. However, sometimes it does not rain for a very long time so they still lack water for irrigation.
- Five tobacco companies are working in the area, cultivating large areas. They are using chemical fertilisers, which is polluting our soil and water. Children are becoming ill when they drink the polluted water. This in turn affects their education, and many are regularly having to miss school. Again, women are impacted as they have to work harder and walk further to find water that is safe for drinking. This is impacting women's availability for income-generation activities. Soil pollution is an additional factor affecting crop yields adding to the problems in the point above. |

### Conclusion

The food insecurity situation is increasing, and the problems are worsening. This was especially evident in recent seasons (most often the rainy season) that rainfall was decreasing. Others felt that the timing of rainfall was becoming less predictable but that the amount wasn’t changing. As the communities are not yet doing any local record-keeping of rainfall data, it is difficult to verify the exact situation. However, from the scientific data researched, it seems that the wider area has experienced decreases in annual rainfall as well as changes to the timings of the rainy seasons.

Other than the uncertainty with regard to rainfall, there are many similarities between community experiences and the scientific information gathered. This provides a clear basis on which to conduct the CEDRA Assessment. (NOTE: in order for the communities to gain a better understanding of the changes to rainfall, we are going to encourage the development of community environmental monitoring systems, which will include rainfall monitoring. This will be included in our CEDRA Action Plan.)
3.5 Using community findings for advocacy

Community experiences are useful, not just for planning your own development strategy, but also to help others respond to climate and environmental change. You could share your findings with other NGOs and with your local and national government – using them in your advocacy work. It is also important to share community feedback with scientists, particularly if this feedback appears to contradict scientists’ records. This will help scientists understand community perceptions and encourage them to engage more with communities.

We also recommend that you share the findings of your community participatory assessments with others in your organisation, particularly senior managers, and with others in your network, so you can help and support each other in your CEDRA Assessments.

Guidance on advocating on climate change – whether internally, locally, nationally or internationally – is included in the following Tearfund publications: Why advocate on climate change?; ROOTS 13: Environmental sustainability – Section 6; and ROOTS 1: The advocacy toolkit. All of these publications can be found on Tearfund’s website at: www.tearfund.org/tilz

CASE STUDY

Engaging local leaders in river dyke construction in Malawi

Disaster risk reduction can be one of the key ways of helping communities adapt to climate change. In Malawi, local communities faced a problem that a local river had changed course and had displaced some households in several villages. When heavy rains came, some people’s gardens were washed away. Tearfund partner River of Life and the affected local communities identified the idea of constructing a dyke as a way to redirect the river flow.

River of Life started an advocacy initiative among local traditional leaders, local church leaders, teachers, civil protection committees and government officials. They gathered them together to start a discussion and hear about the communities’ solution for the problem. Stakeholders met together and, after much discussion, were able to agree on the project and commit to providing different parts of the resources required. For example, the district assembly agreed to provide a tractor, the government forestry department agreed to help plant riverbank cover, and the community agreed to do some of the practical work.

The advocacy activity itself also helped transform and build relationships. Traditional leaders, church leaders and government officials were able to work together and view each other as partners in development.

Taken from Tearfund publication Why advocate on climate change?, p15

Questions for reflection and learning:

- What have you learnt as you’ve carried out this Step?
- Have you achieved what you set out to do when you started?
- Is there anything you need to change in your approach as you address the other Steps?
- Are there any skills you’ve learnt that it would be useful to pass on to others in your organisation?
- How can you feed back your learning into your annual planning cycle and organisational strategy / strategic review?