Reducing risk of disaster in our communities

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Reducing risk of disaster in our communities

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Paul Venton and Bob Hansford

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Introduction

Disasters affect millions of people every year. They cause damage to life, property and livelihoods. Some affect large numbers of people over a short period of time, such as the South Asia tsunami in 2004. Other disasters happen over many years, but may kill many more people than sudden events. For example, HIV and AIDS are gradually causing disaster in many places around the world. Every place has the potential to be affected by some type of disaster. Areas that have not experienced disasters before are increasingly likely to find themselves exposed to new ones due to climate change.

There is evidence that the number, severity and negative economic impact of disasters are increasing. This is mainly because more people are living in vulnerable conditions, such as on flood plains, in urban slums or in poor quality housing. Most people affected by disasters live in the poorer countries of the world.

Disasters often reverse development progress. The increase in the number and impact of disasters is one reason why many people predict that the Millennium Development Goals will not be met by 2015.

Many disasters can be avoided, or at least made less destructive, by reducing the risks that people face. Disaster risk reduction has been effective in many countries around the world, by saving lives and protecting livelihoods. Risk reduction makes good economic sense. A relatively small amount of money spent on risk reduction before a disaster happens may save much larger amounts that would need to be spent on humanitarian aid and reconstruction after the disaster. A study of a community-based project to reduce the risk of flooding in India found that the benefits of the projects were four times higher than the cost of the project. A similar project to reduce the risk of drought and flooding produced thirteen times more benefits than the cost of the project[1].

The most effective way to reduce disaster risk is to work with local people to identify and analyse their vulnerabilities and capacities, and to develop and implement an action plan. This book looks at one method that can be used to achieve this. This methodology is called **Participatory Assessment of Disaster Risk** (PADR).

The PADR process should involve the active participation of local people. It is an empowering process, as people begin to understand the reasons for their vulnerability, and identify their own capacities. These capacities then become the focus of action planning. The action plan looks at how capacities can be developed and used to overcome some of the vulnerabilities. Some activities can be carried out locally to reduce risk, while others may require external support or involve advocacy at district, national or international levels.

[1] Venton C, Venton P 2004   *Disaster Preparedness Programmes in India: a cost benefit analysis*
 ODI Network Paper 49

In order to increase ownership and sustainability of the action planning, it is best if Participatory Assessment of Disaster Risk is carried out where local people have identified a need to reduce disaster risk. A development organisation that has worked in the area for some time could provide a field worker to work through the PADR process with local people. At all times, the staff member must ensure that ownership remains with local people. The development organisation should only facilitate. Local people themselves may be able to use this book and carry out PADR without outside facilitators.

Christians have a God-given responsibility to help those who live in poverty and to relieve suffering. Christian development organisations and churches have an important role to play in reducing the risk of disaster. The local church, where it exists, is well-placed to work with the local people to reduce disaster risk. It should be encouraged to participate fully in using PADR. The Assessment could be used by churches as part of church or community mobilisation processes.

PADR can be used in a number of different situations:

- in areas experiencing regular disaster events.

- in planning all types of development projects in all areas – not just disaster-related projects in areas that are known to be at risk of disaster. Development projects should be planned with an awareness of the risks facing local people. Otherwise, they could increase vulnerability to disaster. In addition, sustainability of development projects can be improved. If risks are not identified and a disaster occurs, the benefits could be lost.

- after a disaster, to help people to address long-term, underlying causes of their vulnerability, as well as meeting their immediate needs.

PADR has been used successfully by Tearfund partners in many countries, including Eritrea, Ethiopia, India, Malawi, Sierra Leone and Sudan. This book contains case studies showing how this process has made a positive difference to people's lives.

This book starts by considering disasters from a Christian perspective. It then looks at some disaster theory and outlines PADR as one way of reducing disaster risk.

Christian perspectives on disaster

1.1 Understanding disaster

Many different disasters are mentioned in the Bible. Sometimes we are given an explanation of why they happen, and sometimes we are not. In this section we look at the different reasons for disaster.

Disaster as a consequence of broken relationships

Many disasters mentioned in the Bible do not appear to happen for a specific reason. They are a result of the fallen world in which we live. In Genesis 3 we read that, because people turned their backs on God and wanted to live their own way, the relationships between people and God, among people, and between people and creation, were broken. Therefore, disasters triggered by 'natural' hazards or so-called 'acts of God' often have human sin at their root. This is because people have been made vulnerable by their own actions and those of other people, due to inequity, injustice and greed.

Christians can be affected by disasters as much as anyone else. Christians get sick and die, they are robbed and raped, they have accidents and can be killed by, or lose loved ones to, natural hazards. Christians are eternally safe in God's hands because in heaven there will be no more death or suffering. However, until that time, Christians live in the world and therefore suffer the consequences of sin.

Disaster as judgment

The Bible rarely mentions a link between specific sin and disaster. Many of the prophets proclaimed disaster as a consequence of worshipping idols.

A well-known example of God bringing disaster as a means of judgment is the flood in Genesis 6-8. Here, the flood is a direct and universal judgment on human beings because of their sin. After the flood, God vowed not to bring such a universal disaster on the earth and its people again. This does not mean that there will be no natural disasters, but that they will be limited in their impact.

Disaster as a call to turn to God

Deuteronomy 28:15-68 is one example of God threatening disaster in order to call his people to turn to him and obey him. In the book of Jonah, we read that God did not destroy the city of Nineveh as he had threatened, because after Jonah's prophecy, the people repented and turned from their evil ways.

Although God does sometimes use disasters as judgment on sinful people, or to bring people back to him, we must not forget that all of us (even if we are never affected by disaster) will one day be judged by God. Disasters can therefore act as a reminder to us of the broken world in which we live and our need for a restored relationship with the Creator.

Who should repent?

- Read Luke 13:1-5. Two disasters are mentioned in this passage. One is a massacre of the people of Galilee. The other is a tower that fell on people in Siloam.
  - *Were the people who had been killed worse sinners than anyone else?*

- *What point is Jesus making in this passage?*
- *In the light of Jesus' words, how should we look at ourselves?*
- *How does this make a difference to us if we are tempted to say that a particular disaster was 'deserved' by those affected?*

Disaster as a sign

The Bible tells us that disasters will continue during the time before Jesus comes again to fully restore relationships.

Disaster as a sign

- Read Matthew 24:3-8.
  - *What are disasters a sign of?*
  - *Jesus is saying that disasters will happen before he comes again. If we* can never completely stop disasters happening, should we just sit and watch? Why not? What Bible passages help us come to this conclusion?

1.2 Our response to disaster

When disaster happens, it is sometimes not easy to see things from God's perspective. We may not be able to identify why a disaster happens, but we should always be ready to take action. For example, we should:

- Trust that God knows what he is doing by allowing the disaster to happen, and that he can bring good out of bad situations.

- Look at ourselves and assess our relationship with God. We should look carefully at how we as individuals, our churches and our nations are serving or failing God, and seek to put things right. We should turn to him for forgiveness through Jesus Christ.

- Look to see how we can help those affected by the disaster (see Bible studies on pages 9–10).

■ Look at how we can stop disasters happening in the future in order to reduce unnecessary suffering. Often there is little we can do to stop hazards happening, but we can reduce people's vulnerability to them. This involves challenging unequal or broken relationships and upholding biblical values of compassion, equity and justice.

BIBLE STUDY

Joy in the face of disaster

Habakkuk chapters 1 and 2 describe a conversation between the prophet and God about the future of the nation of Judah.

■ Read Habakkuk 3:1-2.
- *What do we learn about God's character?*
- *How should this inform the way we pray in difficult situations?*

■ Read verses 3-15. These verses describe in poetic language how God has shown his anger in previous times.

■ Read verses 16-18.
- *What is Habakkuk's reaction to the approaching disaster?*

– *Why is Habakkuk fearful?*
– *Yet why does he 'wait patiently'?*
– *What does it mean to 'rejoice in the Lord'? What is the relationship between this and God's power as displayed in verses 3-15?*

- *How do we relate to Habakkuk's positive view in difficult times.*
- *What can we learn from this passage?*
- *Do we find it easy to 'rejoice in the Lord' and rely on him during difficult times? How can we encourage each other to do so?*

BIBLE STUDY

Serving our communities

■ Christians are called by God to serve and bless those around them. Look at the following Bible passages:

Matthew 5:13-16	James 1:27
Mark 6:35-44	James 2:14-17
Luke 10:25-38	1 Peter 3:8-17
John 13:1-17	1 Peter 3:10
Acts 2:42-47	1 John 3:16-18.

- *What are Christians called to do in their communities?*
- *Why are they called to do these things?*
- *What activities might this involve in relation to disasters?*

■ Look at Mark 12:28-31; 1 John 4:10-21 and Matthew 5:43-45.
- *How does the Christian motivation to help those in need differ from the motivation of secular humanitarian agencies?*

Micah 6:8 is a key motivation to both bring compassion after a disaster has happened, and to make efforts to stop disasters happening. The Lord requires:

A commitment to justice Disasters are often as a result of injustice such as greed and inequality. Through advocacy work, Christians can challenge these unjust relationships and make people less vulnerable to hazards.

Love of mercy We should have compassion for those who are suffering. We should be merciful towards people regardless of their culture, religion, sex, age or ability, remembering that all people are equally valuable to God (Genesis 1:27).

The church is well placed both to help in times of disaster and to take action to reduce people's vulnerability to hazards. This is because the church exists at grassroots level and its members have a wide variety of necessary skills and resources. Christian relief agencies should work closely with the local church, because the local church can sustain the work when the relief agency moves on.

The church in Antioch takes action

■ Read Acts 11:27-30. A famine was predicted by prophecy, and the church in Antioch decided to provide help for the Christians in Judea.

  • *How did the church respond to the famine?*

  • *What can we learn from the Antioch church's example of the famine relief it provided?*

  • *Is there anything we can do now to prepare for any future disasters here or elsewhere?*

Disasters often make people consider the meaning of life and cause people to find spiritual understanding and comfort. They ask questions like: 'What has happened?' 'Why has it happened?' 'Is there a loving God?' 'Why did he not stop it?' God often uses such events in people's lives to change hearts, minds and lives.

• Should disasters change the way we carry out our work? Why?

• How can we avoid taking advantage of people's vulnerability?

• Should we hide the fact that we are Christians when we are distributing aid?

We should provide aid to everyone affected, whatever religious beliefs they hold. This is emphasised in the internationally-accepted Red Cross Code of Conduct.

• How can we discourage people from thinking we only support Christians?

Disaster theory

Before an effective community-based disaster management plan can be developed, it is important to understand what a disaster is and what the risks of disaster in a particular place are. Two models that have been developed to help build an understanding about disasters are used in this book. The 'Crunch' model explains what a disaster is and why it happens. The 'Release' model looks at how disasters can be avoided or minimised.

2.1   The Crunch model

The Crunch model[1] shows that a disaster happens only if a hazard meets a vulnerable situation.

A hazard is an event that could lead to danger, loss or injury. One example is an earthquake. An earthquake in one part of the world can lead to the loss of many lives and the destruction of buildings, roads and bridges. However, an earthquake of the same strength in another country may cause much less devastation. This may be because buildings are stronger, communities are better trained or few people live there. A hazard by itself is therefore not a disaster. Only when the hazard meets a vulnerable situation does a disaster happen.

People are vulnerable when they are unable to adequately anticipate, withstand and recover from hazards. Poverty contributes to vulnerability. That is why an earthquake may cause a disaster in a poor country, while an earthquake in a richer country may have little impact. At local level, a hazard can cause disaster for poor households, while richer households may not be affected to the same extent.

[1] The Crunch and Release models have been adapted from Blaikie P, Canon T, Davis I and Wisner B (1994)
At Risk: Natural Hazards, People's Vulnerability, and Disasters London, Routledge

- What natural and man-made hazards occur in our country?
- Do these result in disaster for some people or some areas of the country, but have little impact on others?
- How does the impact of natural and man-made hazards differ in our country from other countries in our region or across the world? Why?
- What natural and man-made hazards occur in our area?

The Crunch model is based on the idea that a number of factors influence vulnerability to disaster.

| Hazards | Elements at risk | Vulnerable conditions |

Elements at risk

People's lives rely on a number of different 'elements'. These elements include houses, water supplies, social groups and networks, crops, livestock, savings, jobs, and the natural environment. If these elements are vulnerable, the hazard is more likely to cause damage to them. They are called 'elements at risk'.

- What personal elements of our lives are most likely to be affected by a particular hazard?
- What community elements are most likely to be affected by any particular hazard?

Vulnerable conditions

Some elements are at risk because they are unable to withstand the impact of a hazard. This vulnerability might be:

- **ECONOMIC** such as fragile livelihoods; no credit and savings facilities

- **NATURAL** such as dependence on very few natural resources

- **CONSTRUCTED** such as structural design; location of houses on an unstable slope

- **INDIVIDUAL** such as lack of skills or knowledge; lacking opportunity due to gender; being old or very young; living with HIV or AIDS

- **SOCIAL** such as a disorganised or fragmented society; bad leadership.

For example, a flood hazard may damage or destroy mud and bamboo houses. Those types of houses are therefore elements at risk. To understand vulnerability we need to ask why they are at risk. We may conclude that it is because of the location and construction of the houses. They are reached by the flood water because the houses are built on low-lying ground. They are easily destroyed by the force of the flood water because they are built using weak materials.

Communities, households and individuals are not all affected in the same way by a hazard. One community may be vulnerable in a different way to another community, due to its location or wealth. Households may be affected differently due to their income or land ownership. Gender is an important issue. Women are often more vulnerable than men because they are given lower status in some societies. For example, women may receive less information about hazards than men, or they may be unable to read the information. See Section 5.3.

HIV is unusual because it is not only a hazard. It can also make households vulnerable to other hazards such as floods. For example, someone with HIV may often get sick. They may be less able to escape quickly from floods than other people.

REFLECTION

- **Think of a recent disaster. What elements were affected and what were the vulnerable conditions that put them at risk?**

The diagram can then be expanded to show that a number of pressures increase vulnerability.

| Hazards | Elements at risk | Vulnerable conditions | Pressures |

Pressures

Vulnerable conditions exist because of pressures acting on individuals and communities. We might not be aware of these pressures and they are often difficult to challenge. 'Pressures' are structures and processes that create vulnerable conditions. We need to identify:

■ **who** is responsible for creating vulnerable conditions. These can be organisations (such as local government departments, religious groups or commercial companies) or individuals (such as a local landowner). These are called the **structures**.

■ **how** structures affect the vulnerable conditions, such as through policies and practices. These are called the **processes**.

REFLECTION
■ **What structures create vulnerable conditions in our local area?**
■ **What processes create vulnerable conditions in our local area?**

A number of underlying causes influence the pressures.

| Hazards | Elements at risk | Vulnerable conditions | Pressures | Underlying causes |
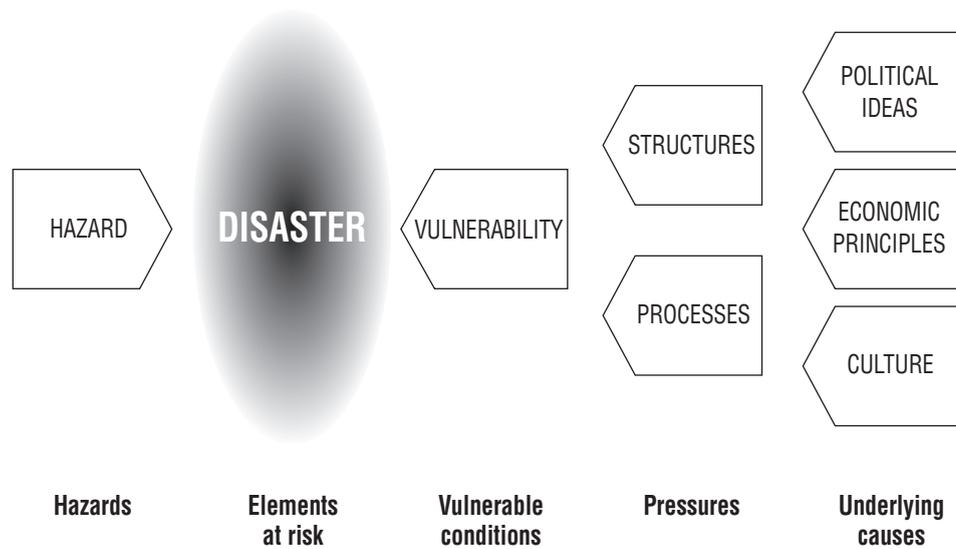
Underlying causes

Pressures are caused and increased by a set of 'underlying causes' which encourage those in positions of power to behave in a certain way. These underlying causes may be political ideas, economic principles or due to cultural issues. People's vulnerability at local level can often be linked back to poor governance, inequality, greed, injustice and prejudice, not only at a local and national level, but at the international level as well. These issues may seem far from the affected community but they can have a powerful influence. For example, political decisions about land reform can result in people losing land or work, making them more vulnerable to hazards.

REFLECTION   ■ **What underlying causes push those with power to act in the way they do in our area?**

The whole framework exists within a spiritual context.

| Hazards | Elements at risk | Vulnerable conditions | Pressures | Underlying causes |
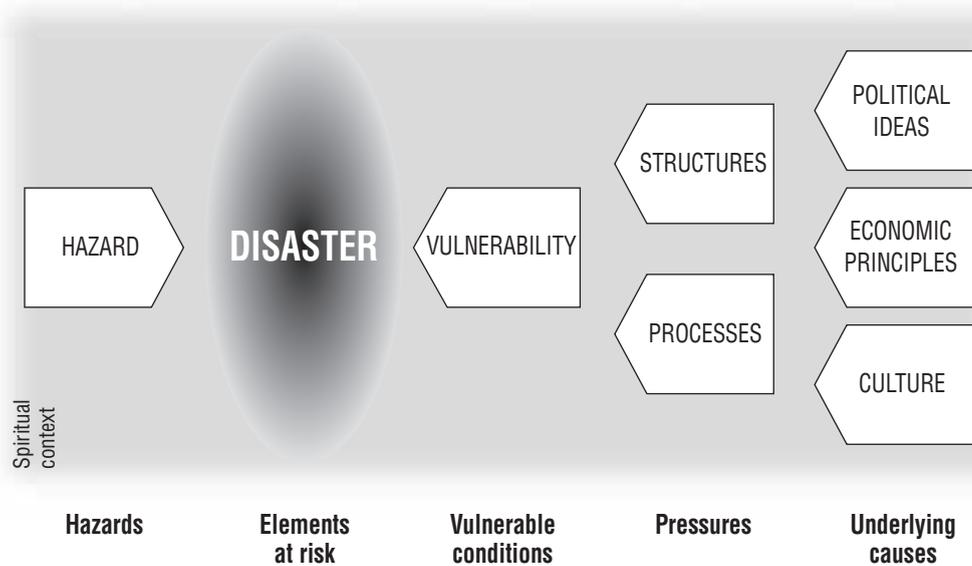
Spiritual context

The spiritual context depends on how we relate to God. It relates to people's individual spirituality and to the presence of religious institutions at local or national level. It influences the way people act and therefore influences vulnerability to disaster. The church is part of this spiritual context. There are many ways in which the church can help to reduce vulnerability. However, in some places, church practices could be increasing vulnerability. For example, costly marriage or funeral ceremonies could increase economic vulnerability.

REFLECTION
- **What is the spiritual context in which we live?**
- **How do spiritual beliefs affect people's attitude to disaster?**
- **How do spiritual beliefs affect people's attitude to other people in times of disaster?**
- **Are there any spiritual practices that increase vulnerability?**
- **In what ways could the church reduce vulnerability in our community?**

EXAMPLE
Disaster risk in
Bihar, India

Rural people in Bihar, India, live on low-lying flood plains. Each year they face a flood **hazard**. The **elements at risk** are houses. The location of these houses is one of the **vulnerable conditions** they experience. One solution would be to move to higher land, away from the flood plain. However, the caste system, which determines social class, is a powerful **pressure**. The dominant, high-caste owners of the higher land prevent lower caste villagers from living on this land. Lower caste villagers cannot earn enough income with which to buy higher land of their own. The caste system therefore creates and sustains vulnerable conditions for the poorer villagers. The beliefs and culture of the society are the **underlying causes** of the caste system.

Photo: Caroline Irby, Tearfund

A lower-caste villager working on the flood plain.

This book shows how a tool called Participatory Assessment of Disaster Risk (PADR) can help communities identify measures to reduce the impact of hazards. It takes the components from the Crunch model (hazards, elements at risk, vulnerable conditions, pressures and underlying causes) and uses them as aspects of the Assessment process.

2.2   The Release model

To reduce the risk of disaster, the factors that cause risk should be addressed. This means working against all the components of the Crunch model. Action may be necessary at local, national and even international levels.

The diagram on page 18 shows the action that could be taken to reduce disaster risk in different parts of the Crunch model.
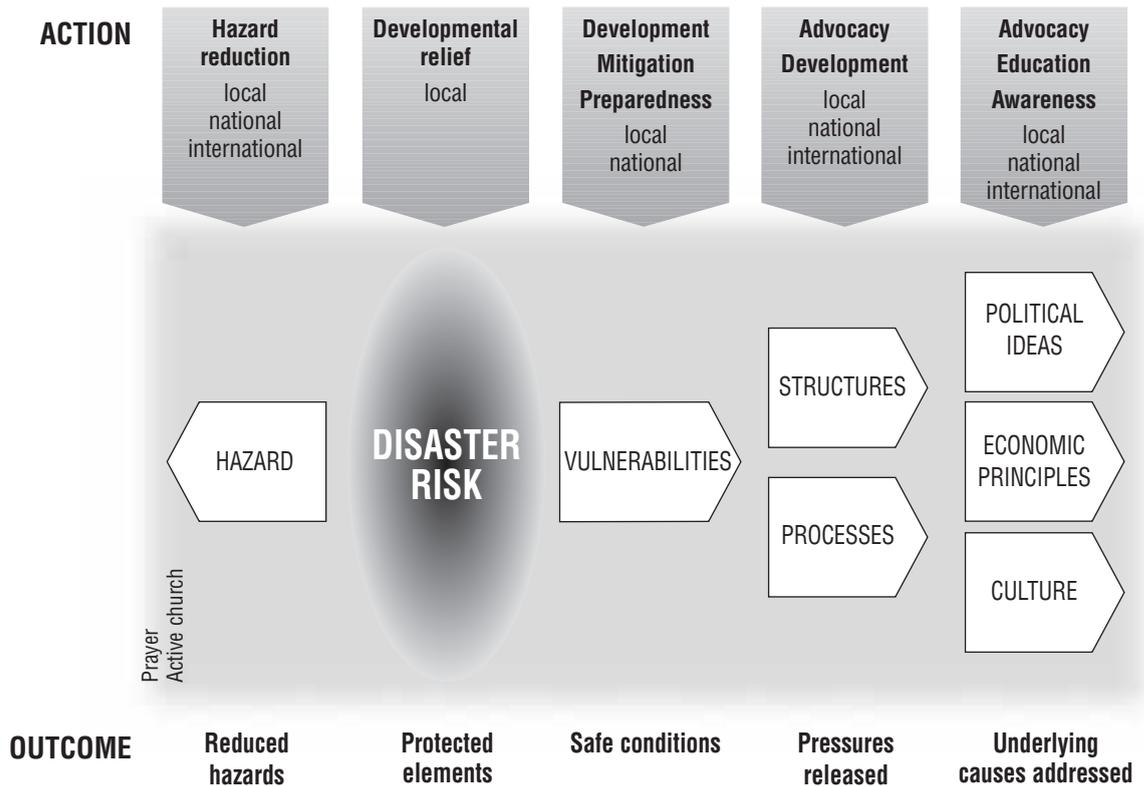
Explanation of the diagram

Reduced hazards

Ways could be found to reduce the occurrence, frequency or strength of various hazards. For example, embankments could be built to reduce flooding. Trees could be planted to help stop landslides after heavy rain. Advocacy could be used to influence policies that limit climate change, which is increasing the frequency and severity of some natural hazards. Vulnerable groups should be encouraged to take part in decision-making to ensure that conditions do not worsen for the poorest and most vulnerable people.

Protected
elements

Some elements of a community may be able to withstand the impact of a hazard. For example, a tube well could have a pump on a high platform so that it is not affected by flooding. Developmental approaches to relief will identify these elements and seek to support them and copy them.

ACTION

Hazard reduction	Developmental relief	Development Mitigation Preparedness	Advocacy Development	Advocacy Education Awareness
local national international	local	local national	local national international	local national international

HAZARD

DISASTER RISK

VULNERABILITIES

STRUCTURES

PROCESSES

POLITICAL IDEAS

ECONOMIC PRINCIPLES

CULTURE

Prayer
Active church

OUTCOME

Reduced hazards	Protected elements	Safe conditions	Pressures released	Underlying causes addressed

Safe conditions   All vulnerable people have strengths. These can be used to lessen the impact of a disaster. These strengths, which are often not fully understood by outsiders, are known as 'capacities'. Elderly people are generally thought to be weak with a lack of mobility and are often seen as being vulnerable. However, by considering capacities, we may find that elderly people have a wealth of traditional knowledge and a good understanding of what solutions have worked well, or have failed, in the past. They may be vulnerable compared with others in the community, but they also have capacities which others may not have. If a disaster happens, not only should immediate needs be met but capacities should be recognised and strengthened. Before a disaster happens, disaster risk can be reduced by discovering and supporting capacities.

Pressures released   Not all of the structures and processes will be working in a negative way that creates or increases vulnerability. Some, such as an NGO, the church, a good local leader, or a popular politician, may be working to strengthen the community and could be an important source of support in times of disaster. These people could help us to do effective advocacy work in order to release negative pressures.

Underlying causes addressed   Some structures and processes may help to reduce the risk of disaster because their political and economic approaches and values are fair and just. To encourage these values among negative pressures, we can use advocacy. The church can have an important role to play.

All of these approaches should be based upon a detailed assessment of the disaster risk experienced at a local level. People become less vulnerable when they work together to identify and prioritise risks and devise a programme of activity to reduce those risks. The Participatory Assessment of Disaster Risk (PADR) tool can be used to enable people to identify the risks they face and plan to reduce those risks.

Spiritual context   The spiritual context can greatly influence capacities and reduce disaster risk. Prayer and an active, caring church should play a vital role.

Introduction to Participatory Assessment of Disaster Risk

This section looks at how the Crunch and Release models can be transformed into a practical tool called Participatory Assessment of Disaster Risk (PADR). Components of the model (hazards, elements at risk, vulnerable conditions, pressures and underlying causes) form stages in the Assessment process.

The key steps are:

■ preparation

■ hazard assessment

■ vulnerability assessment

■ capacity assessment

■ key informant interviews

■ action planning.

Using this approach, disaster risk can be fully assessed by local people and effectively reduced through a range of activities. The key steps of PADR are outlined in Section 4. In this section, we consider two important issues which are essential to the PADR process:

■ good facilitation

■ understanding the categories of analysis, which form the basis of the vulnerability and capacity assessments.

3.1   Good facilitation

PADR requires good facilitation if it is to be owned by local people. This involves:

■ identifying who should facilitate

■ considering facilitation issues

■ thinking about facilitation skills.

The facilitation team   The purpose of the facilitation team is to enable local people to carry out the Assessment. The team needs a minimum of three people:

■ a facilitator who can lead the discussions

■ someone who can make accurate notes of the discussions and plans

■ someone who can make practical arrangements.

It can be helpful to have more than one facilitator so that different focus groups can meet at the same time. If the facilitators are members of staff of a development organisation, a translator may be needed.

The facilitation team should include both men and women. It is particularly important to have a female facilitator for meetings with women's groups to encourage open and honest discussion of issues.

The local church can serve local people in a practical way by engaging with this process. Where appropriate, church members who could be facilitators should join the facilitation team.

The facilitation team should have a maximum of six members. It is beneficial for some facilitators to be from the local area as it will help the community to engage with the process better. It will also help to address expectations which can be particularly high if too many outsiders are involved. Local people have a lot to contribute to the facilitation team – they will know which methods will work and which will not work.

Any local people who join the facilitation team should be willing to remain neutral during focus group discussions. Potential local facilitators may have already shown their ability to facilitate discussion. Other people may have the potential to become good facilitators, and could be trained during the PADR process. These people should be included in the facilitation team from the start. However, they may initially want to watch others facilitate the focus group exercises before doing it themselves. It is important that experienced facilitators give these new facilitators constructive feedback.

The note-maker will need to be literate. It is usually best to have a local person making the practical arrangements. They have local knowledge which can be helpful when deciding where and when to hold the focus group meetings.

Facilitation issues

The facilitators should take time to read this whole book through at least once, in order to fully understand the theory and the process of carrying out the Assessment.

It is important to be aware of two key issues which affect the success of the process:

■ relief dependency

■ managing sensitive issues.

Relief dependency

Where a high level of relief aid has been distributed after a disaster, 'relief dependency' may develop. This occurs if relief aid is excessive or is provided without recognising people's own coping capacities. Humanitarian agencies can treat beneficiaries as helpless victims and allow them little participation in decision-making, rather than treating them as survivors with strengths and abilities.

When people have become used to getting help from outsiders, they may exaggerate the scale of their vulnerabilities and minimise their capacities in order to get maximum support and resources. Information received from people that seems surprising could

therefore be checked by asking other local people or organisations working in the area. Findings can be compared and verified. The facilitator will need to be wise in the handling of the Assessment process. The facilitator should strengthen people's desire to develop without becoming reliant on outside help.

Managing sensitive issues

Exposing and exploring people's vulnerabilities is a sensitive matter. If there is not enough emphasis upon capacities, the PADR process can focus too heavily upon weaknesses. This can be dis-empowering and cause pain by bringing to mind past traumatic events. Discussions about the underlying causes of people's vulnerability can be very sensitive if they refer to specific people in positions of power and to traditional belief systems.

If not facilitated well, PADR can cause either one of the following reactions:

■ a **fatalistic attitude** where poor and marginalised people start to believe their vulnerability has to be permanent. A Christian facilitator can share a different perspective – that poor and marginalised people are valuable to God, and all have abilities and potential. This creates hope for the future.

■ **increased tension** between those who are vulnerable and people who are identified as creating or ignoring their vulnerability. The facilitator could help the group to think of situations where these people are or have been helpful and to consider what influences the good or bad decisions they make.

Facilitation skills

The aim of the PADR process is to increase people's understanding of their vulnerabilities and capacities, so that they can develop positive approaches to improve their situation. Facilitators should avoid the temptation to extract information from local people and make decisions for them. Facilitators should instead focus on enabling them to reduce their own disaster risk.

People can have very different perceptions of risk, depending on their gender, wealth, age, education, type of employment and position in society. Facilitators should have an open mind and avoid imposing their own views.

Key principles

By following some key principles, local ownership of the PADR process can be encouraged:

■ The purpose of PADR should be made clear to, and agreed with, local people.

■ The process should be carried out with respect and sensitivity.

■ The process of assessment is as important as the product or outcome. Invest time in encouraging the process to be as participatory as possible.

■ Where possible, focus groups should be made up of people with similar characteristics, such as age, sex, livelihood or ethnicity.

■ Energisers or ice-breakers at the start of focus group meetings can help people to feel comfortable with the facilitators and with other people.

- Questions should be open-ended in order to encourage discussion. However, make sure that discussions do not stray from their purpose.

- Analysis of the information collected should be done with local people.

- Literacy should not be assumed. Participatory Learning and Action tools enable people who are not literate to participate in information gathering and analysis.

- Sensitive issues should be dealt with carefully and appropriately.

- The process may identify low-cost ways to reduce vulnerability. Communities can be empowered if they are encouraged to start with these after the action planning step.

When facilitating meetings with community members, the following ideas could be helpful:

DO	DON'T
■ Allow time for introductions and explanations	■ Teach
■ Show respect	■ Rush
■ Watch, listen, learn and show interest	■ Lecture
■ Be sensitive to feelings and culture	■ Criticise
■ Be prepared, but flexible	■ Interrupt
■ Be creative	■ Dominate
■ Show humour	■ Look bored
■ Be willing to allow community members to take the lead	■ Ignore cultural norms
	■ Laugh at people's ideas

3.2 Categories of analysis

PADR uses five 'categories of analysis'. The five categories relate to different types of assets. An asset is something that can be used to improve well-being. These categories recognise that hazards affect different aspects of life. By using these categories we can ensure that all aspects of vulnerability and capacity are assessed. It means that the facilitator's preferences, or those of powerful people, do not dominate. For example, it may be tempting for a facilitator who is experienced in social work to ignore structural or physical strengths and weaknesses. Someone with an engineering background may not pay adequate attention to indigenous skills or local knowledge.

The facilitator may find it useful to start discussions with focus groups in the order given here. However, while this order is logical and discussions can flow quite naturally from one category to the next, the facilitator may need to be flexible and respond to the direction of the group's discussions. This is partly because the categories are connected with each other. The facilitator should be focused upon the overall aim of the process – to find ways of reducing disaster risk – rather than necessarily following the exact sequence of the process itself.

The five categories of analysis

ECONOMIC	NATURAL	CONSTRUCTED	INDIVIDUAL	SOCIAL
such as income, savings, loans	such as soil, forests, water	such as housing, wells, tools	such as people, knowledge, health, skills	such as relationships, committees, networks

Economic assets

These relate to household income and expenditure and possessions that can be turned into money. For example, in some countries, jewellery is an economic asset which can be traded or sold when the household needs cash. Cattle are also a saving mechanism in some countries. At local level, savings and credit opportunities are economic assets. Discussion about economic assets often sets the context for the other categories, because people will naturally begin to discuss them.
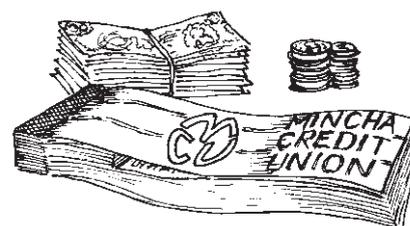
Natural assets

These include forests, rivers, grazing areas and wild fruits. Discussion should be about whether these assets exist in the local area and who has access to them. Trends in quality and availability, such as deforestation or lowering of the water table, should be assessed.

Constructed assets

Constructed assets are man-made. These include basic infrastructure such as houses, roads, schools, hospitals, electricity cables and wells. They also include tools and equipment that people use to be productive such as a plough. Infrastructure is often directly managed by the government, while tools and equipment are usually privately owned and managed.
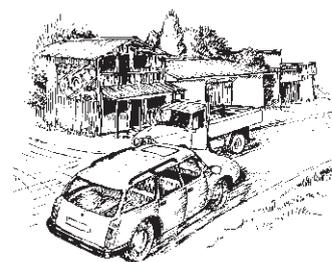
Individual assets   These include people's skills, knowledge, ability to work and physical health. The size of a household may affect these assets. For example, a household with many small children may have fewer adults able to work because of childcare responsibilities. People often draw upon their individual assets to make the best use of assets in other categories. For example, they may have traditional knowledge of agricultural methods or edible wild plants, which increases use of constructed or natural assets. Individuals will have their own spiritual beliefs which may affect their own or other people's vulnerability or capacity.
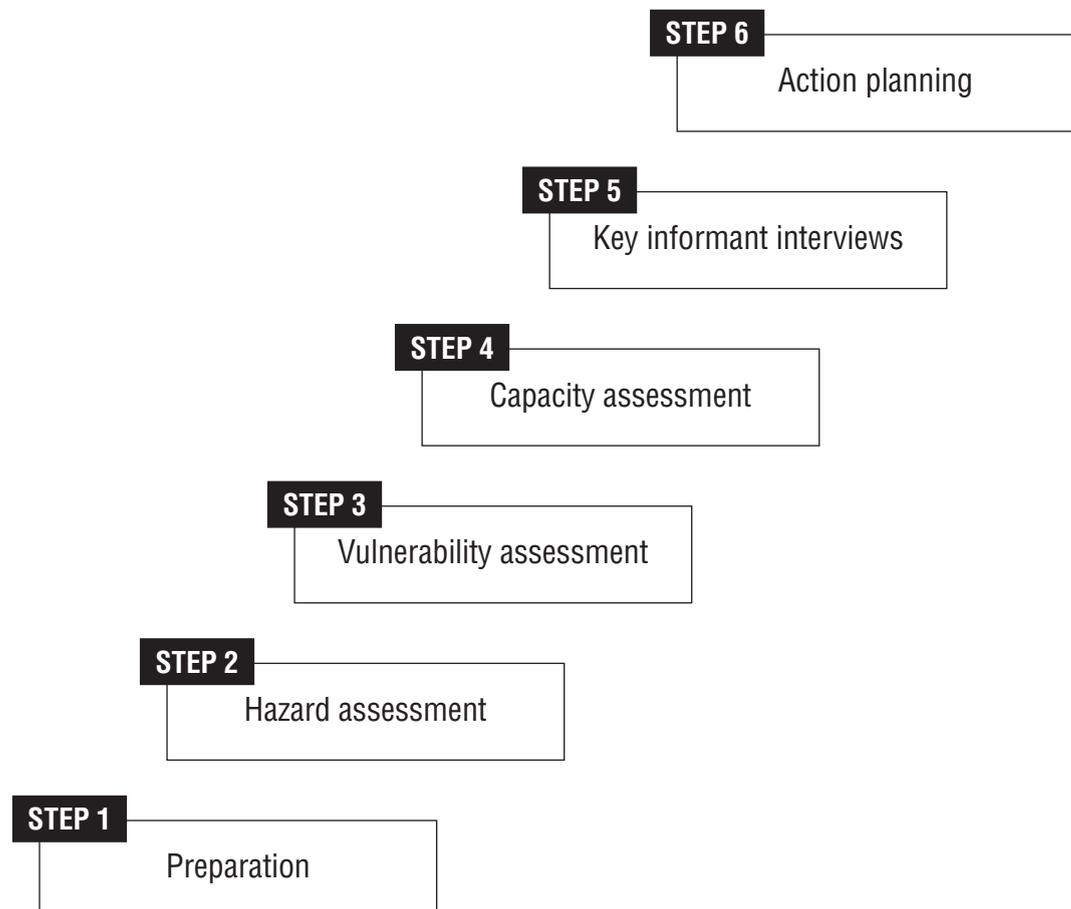
Social assets   These consist of relationships and networks that exist in the community and with people outside. They have an important influence on levels of vulnerability and capacity, but are often neglected. The extended family is an important asset in this category, followed closely by issues of leadership and ability to settle disputes. Membership of networks can expand an individual's ability to access information, such as a farmers' co-operative providing access to details about market prices. Good relationships can lead to co-operation and the sharing of resources.

Social assets can contribute to people's well-being by strengthening identity, pride and a sense of belonging. However, exclusion from groups can be a powerful pressure which affects vulnerability. Individuals' spiritual beliefs can influence their relationships.

The six steps of Participatory Assessment of Disaster Risk

STEP 6
Action planning

STEP 5
Key informant interviews

STEP 4
Capacity assessment

STEP 3
Vulnerability assessment

STEP 2
Hazard assessment

STEP 1
Preparation

PADR is a process of six steps. Preparation must always come first. Vulnerability assessment can only occur after hazard assessment, as people's vulnerability relates to a particular hazard. Action planning must come last, once all the other steps have been carried out. However, within these constraints the steps can be varied. For example, focus groups may find it helpful to discuss capacities at the same time as vulnerabilities rather than later on. Some key informant interviews may occur at different points in the process.

The aim of PADR is for stakeholders (local people, facilitation team and key informants) to:

■ understand the risks experienced by local people and the causes of their vulnerability

■ understand local capacities

■ identify activities that will be carried out to reduce the risk of disaster.

STEP 1   Preparation

Before beginning the Assessment process, the facilitation team should do the following:

1 Meet with community and church leaders

2 Prepare for the field work

3 Learn and practise participatory tools

4 Make the practical arrangements

5 Introduce PADR to the community.

1   Meet with community and church leaders

A plan to carry out PADR should be developed in consultation with the community, particularly its leaders. Their understanding and ownership of the process is very important for its success and future outputs. It is also important to gain as much support from the government as possible. Therefore, it may be appropriate to invite government officials to be involved at this stage of the process, and at other appropriate stages throughout the process.

Set up a meeting with the community and church leaders. The meeting should include:

- **INTRODUCTIONS** The community leaders, church leaders and facilitation team should introduce themselves.

- **PURPOSE** Explain what the Assessment can offer local people in terms of helping them to reduce risk. Briefly explain what the process involves and explain the relationship between hazard and vulnerability. Point out that the process involves both assessment and action. Seek permission to carry out this work in the local area and to access various groups.

- **FINDING OUT** some general information about the community:

  - **History** When was the community formed? What significant events and changes have occurred?

  - **Livelihoods** What economic activities are carried out locally and how have these changed over time?

  - **Population** What is the population of the community? Is it increasing or decreasing? Is there any migration?

  - **Rich and poor** How would 'rich' and 'poor' be defined by local people?

  - **Hazards and disasters** Have the hazards and their characteristics changed over time?

  - **Vulnerability** Who are the people most in need, especially in times of crisis? Why do they suffer more than others?

  - **Leadership** Ask about the role of the community leaders, church leaders, the local government system and how decisions are made.

  - **Walk** If there is time, it can be helpful for the community leaders and church leaders to take the facilitation team for a walk around the local area, pointing out significant aspects.

■ If the leaders agree to PADR being carried out in the community, ask them to identify people who could form focus groups. Ask them to identify key informants.

■ Work with community leaders and church leaders to draft a schedule for PADR. The schedule should include all six steps. It is important that each step has adequate time for both the gathering of information and the analysis. Around half the time should be used for analysis, which includes discussion and prioritising findings.

Ensure that anything that could limit the availability of local people is taken into account, such as:

■ market days

■ festivals

■ weather (such as harvesting ahead of bad weather)

■ elections

■ insecurity.

The length of time required to do a PADR will vary according to the context, the size of the facilitation team, the structure of the community and the number of focus groups.

In order to prepare church members for the Assessment, church leaders could encourage members to use the Bible studies on page 8.

2   Prepare for the field work

Identify focus groups

Vulnerabilities and capacities will vary between different groups within a given community. Even within groups, individuals will experience different types of vulnerability and will possess different capacities. Perceptions of disaster risk will therefore vary. However, it is not practical to meet with every person in the local area. The best way forward is therefore to meet with a selection of people in focus groups. These focus groups consist of community members with similar characteristics.

When setting up focus groups, consider how different categories of people within the local area are likely to be affected by disaster. Community leaders can help by identifying specific people who could join focus groups. Groups could consist of:

■ women

■ men

■ older people

■ young people

■ groups such as water user committees, self-help groups or church groups

■ livelihood groups such as farmers or labourers. These could be further divided into wealthy groups and poorer groups

■ those from a certain social background, such as according to caste or social class.

The size of each group should be carefully managed. Ten to twelve people per group will usually provide a good representation of the range of views held by local people. In a larger group it can be difficult to keep focused. The location of the meetings requires careful planning. Quiet places where the meetings are unlikely to be interrupted are best. However, the place selected must be accessible to the focus group members. A church building or village community centre may provide a good setting. A focus group of women could decide to meet at a well where they often talk, away from the men.

During such meetings, it may become clear that specific people need to be interviewed separately. For example, some people may have more to offer than can be expressed in a focus group setting. A disabled person may be unable to attend the focus group meeting or be denied access, but could have valuable views to share.

Consider potential key informants

In order to gain a full understanding of vulnerabilities and capacities, it will be necessary to talk to individuals who have a different perspective, level of knowledge or understanding from the majority. They are likely to be external to the community or occupy positions of power and influence. The community leaders may have identified some of these informants. Other key informants might be identified later by focus groups during the vulnerability assessment. It is important to have spoken to key informants before planning action in STEP 6. Interviewing of key informants could take place after the vulnerability and capacity assessments, or between them. Key informants may include:

- local government officials

- landowners

- employers

- other community leaders in the area

- religious leaders

- school teachers

- medical staff (doctors or health workers)

- government agricultural or livestock workers

- NGOs in the area

- United Nations personnel in the area.

Scheduling

It is important to find out people's availability before agreeing a detailed schedule. The community leaders will have helped to write a draft schedule. It may be helpful to check the draft with a few local people, in particular to check that their daily routines and work patterns do not affect their ability to participate in the Assessment. Focus group meetings, for each step of the Assessment, are likely to last two to three hours. However, the amount of time required to carry out each step will often grow as members become more interested in, and enthusiastic about, the process.

Preparing questions

FOCUS GROUPS Guideline questions, based upon the PADR framework, should be prepared before focus group meetings. Sample questions are given in Section 4, Step 3. These should be used as ideas for discussion, not for rigid and inflexible interviewing. The questions should be adapted to suit specific focus groups, as different groups will have different interests and experiences. The facilitator should draw out these perspectives and views.

KEY INFORMANTS Careful thought and preparation is required before meeting with key informants. It is useful to prepare questions before the meeting. Sample questions are given on page 54 but they should be adapted and based on findings from the focus groups.

The purpose of the meetings is to gain a better understanding of key informants' perspectives on the vulnerabilities and capacities in relation to a specific hazard. Be aware that some key informants could be acting as 'pressures' by creating vulnerable conditions. In this case, their co-operation is important as it may be needed for long-term reduction in disaster risk.

3 Learn and practise participatory tools

The success of PADR in leading to reduced disaster risk is heavily dependent on the commitment of local people to developing and initiating action. The proper use of participatory tools will help to achieve this, as there will be shared learning and development. Facilitators should take time to learn, adapt and practise participatory tools. Decide carefully which tool to use for different steps in the process. Suggestions are given on page 32.

The facilitator should introduce the tools for use by groups, but group members should be responsible for carrying out the activity. The tools can produce very different information if carried out by separate groups, such as according to age, gender, occupation or ethnicity.

CASE STUDY
Drawing hazard
maps in Indonesia

In Banda Aceh, Indonesia, following the tsunami disaster, three different focus groups drew hazard maps of their local area. Only the women drew the shops, only the men drew the location of a warehouse, and only the children drew the playgrounds. This shows that people with different characteristics have different perspectives on what they think is important.
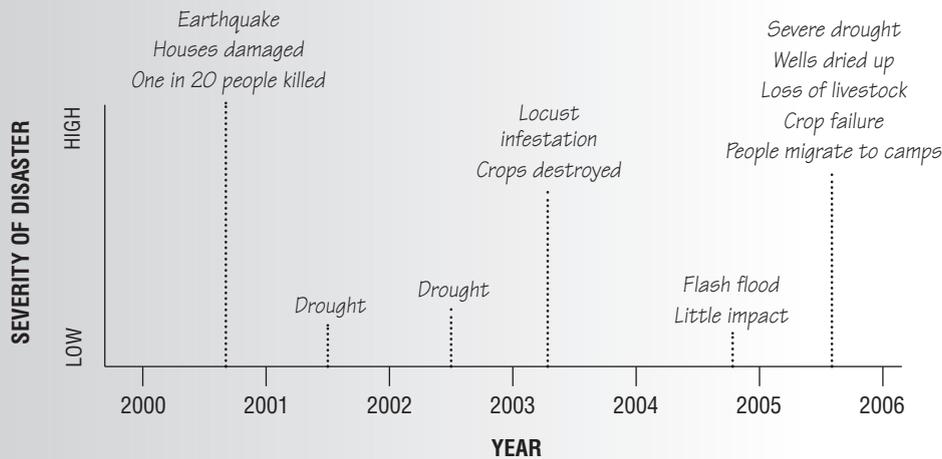

Map drawn by women in Banda Aceh.

Photo: Paul Venton

Some participatory tools that could be useful in PADR…

TIMELINE

This is used to gather information about what happened in the past in order to understand the present situation.

Earthquake
Houses damaged
One in 20 people killed

Severe drought
Wells dried up
Loss of livestock
Crop failure
People migrate to camps

Locust
infestation
Crops destroyed

Drought

Drought

Flash flood
Little impact

SEVERITY OF DISASTER

HIGH

LOW

2000   2001   2002   2003   2004   2005   2006

YEAR

DRAMA

People could be asked to act out a disaster situation, showing who is affected and what is damaged. They could show how local people prepare for, and respond to, particular hazards.

FOLK SONGS, STORIES, POETRY

These can reveal indigenous knowledge, beliefs and practices.

MAPPING

This involves drawing the area's main features and landmarks as a map. This might include houses and community facilities vulnerable to particular hazards, and the location of key resources in an emergency. Maps can be drawn on the ground using sticks, leaves and stones, with chalk on a blackboard or with pens or pencils on a large sheet or a large piece of paper.

RANKING

This tool explores people's perceptions of risks and helps to understand their priorities. One way of carrying this out is to write or draw the risks on to separate paper bags. Give each person six seeds, stones, beads or bottle tops to use as counters. Each person in turn puts their counters into the relevant bags, according to their priorities. They should put three counters for their first priority, two for their second and one for their third. The counters in each bag are then counted and the results announced. Another way of ranking priorities is to write or draw the risks on to cards and ask the group to prioritise them together by moving the cards around, putting the priority at the top.
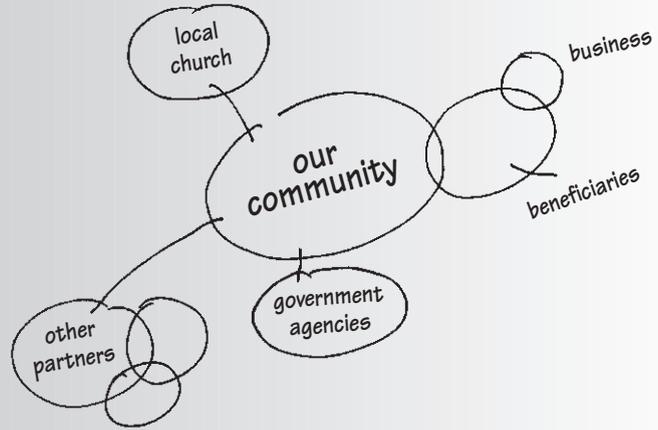
TRANSECT WALK

This is a planned walk through the local area to explore different land uses (such as economic activities, agriculture, open spaces, houses) while taking notes, photographs and asking questions.
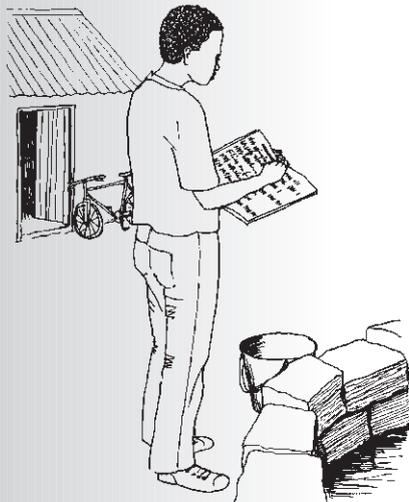
VENN DIAGRAM

This shows the key organisations and individuals in the local area and their relationships with each other.

DIRECT OBSERVATION

By observing people and relationships, objects, structures, events and processes we can start to develop a picture of community issues.

SEASONAL CALENDAR

This shows when agricultural activities, festivals and other significant events take place in the local area. Hazards can be added to the chart to show which activities will be affected.

		Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Hazards	FLOOD							███	███				
	SOIL EROSION						███	███	███				
	MALARIA								███	███	███		
Activities	RICE GROWING	███	███	███	███		███	███	███	███	███		███
	MIGRATION							███	███				
	HANDICRAFTS		███	███									

The table below shows which participatory tools best fit each type of assessment. For each assessment, facilitation team members should select the tools based on the information needed, literacy level of the group and the skills and experience of the facilitator.

Useful participatory tools according to type of assessment

HAZARD ASSESSMENT	VULNERABILITY ASSESSMENT AND CAPACITY ASSESSMENT
■ Hazard map ■ Ranking ■ Seasonal calendar ■ Time line ■ Historical map	■ Risk map (Hazard map also showing 'elements at risk') ■ Transect walk ■ Seasonal calendar ■ Time line ■ Venn diagram ■ Folk songs, stories, poetry ■ Drama

4   Make the practical arrangements

Issues to consider include:

■ Travel arrangements – who, where, when, and how?

■ Food and drink – are refreshments required for the focus group participants?

■ Resources for the facilitation team, such as guideline questions, note book, pencil or pen and camera.

■ Resources required for participatory exercises – large sheets of paper, pens, chalk, or natural resources (such as sticks and stones) and aids for drama.

5   Introduce PADR to the community

Before carrying out the assessments it is important to hold a community meeting to explain what PADR is and what the process involves. Try to involve community leaders in presenting PADR in order to encourage community ownership. Explain the relationship between hazard and vulnerability.

This meeting could be used to invite people to join focus groups and to discuss the appropriate timing of the meetings. However, the community leaders may prefer to select people themselves. If this is the case, ensure that the focus group members have not been picked because they are biased in some way.

Expectations should be discussed with local people, so that they do not expect things that cannot be offered. However, it is important not to discourage vision. People need to believe that a difference will be made, but must be realistic in terms of the time and resources available to achieve aims.

STEP 2 # Hazard assessment

The level and type of vulnerability will differ according to the hazard. The first practical step of PADR is to discover what hazard or hazards local people face.

What are hazards?
Notes for the facilitator

Hazards can be natural or man-made. Sometimes these overlap. For example, conflict (man-made hazard) may contribute to the impact of a drought (natural hazard), if farmers are no longer able to move their animals safely to grazing land.

Natural hazards include:

WEATHER RELATED

- Flood (river or coastal), with possible landslide and soil erosion
- Drought, with possible soil erosion
- Cyclone (Indian Ocean/Bay of Bengal), hurricane (Atlantic Ocean/Caribbean) or typhoon (Pacific Ocean), with possibility of storm surges (large waves blown inland), flood and landslide
- Hail storm
- Frost

EARTH RELATED

- Earthquake, with possible tsunami, landslide and fire
- Volcano
- Landslide
- Soil erosion

OTHER

- Fire
- Pest invasion
- Disease or illness (such as diarrhoea, cholera, malaria and HIV).

Man-made hazards can affect communities or individual households. They include:

- Technological accidents (such as chemical spillages and pollution)
- Eviction (particularly slum dwellers, refugees and internally displaced people)
- Kidnapping (particularly children, young girls and women)
- Riots
- Global price changes, which can affect the whole community if they are all growing the trying to sell the same crop.

In some places, a hazard might be obvious. For example, Bangladesh experiences flooding. Because this flooding happens each year, everyone living there is aware that flooding is a hazard. In other situations, the hazard may be less obvious. For example, people may be less aware that they may be affected by an earthquake or tsunami because these events happen less frequently. They may not happen in a person's lifetime. These types of hazards are quite rare, but when they occur, they can have devastating consequences. HIV is a hazard which may be less obvious because it is often felt only at individual level to start with. It becomes a slow-onset disaster, taking years to become AIDS, leading to death.

Activities

1   Organise focus group meetings.

2   Ask focus groups what hazards affect the local area.

3   Ask focus groups to prioritise the hazards in order of the size of their potential impact (see below).

4   Ask focus groups to assess the hazards (see below).

5   Compile the information collected from the focus groups and copy the findings onto a large version of the Crunch model, which can be displayed in the community. Ensure that any sensitive issues, such as references to specific people, are not included.

Tools

Relevant participatory tools for activities 2–4 include: hazard map, seasonal calendar, time line, ranking.

Prioritising hazards

If local people face several types of hazards, it is necessary to rank them in order of threat. People should decide how to define which hazard is the most serious. For example, death and injury may be seen as more serious than loss of property.

PADR should then be carried out for the hazard given the highest priority. If there is more than one hazard that is considered to be very important then each will need to be considered separately.

NOTE: If violent conflict is considered to be a priority hazard, either because conflict exists in the local area or because there is the potential of conflict, the PADR process should be used with caution (see Section 5.2). In extreme cases, it may be better to work with local people to address the conflict. The ROOTS book *Peace-building within our communities* may be helpful.

Assessing hazards

Hazard assessment involves an examination of the nature and behaviour of each hazard. Look at:

■ HISTORY (looking at how the hazard has affected local people in the past)
  • Is the hazard part of normal life or rare?
  • When was the last disaster?
  • When was the biggest disaster?
  • Is the hazard getting worse, better, or staying the same? Remember that climate change may be changing the characteristics of weather-related hazards.

■ FREQUENCY (to find out the likelihood of the hazard happening)
  • How often does the hazard happen?
  • Is it more or less frequent than in the past?

■ SPEED OF ONSET (to find out how much warning there is before the hazard happens)
  • How quickly does the hazard happen?
  • What warning signs are there?
  • How do people define when a hazard becomes dangerous? (such as when water levels reach a certain height)

- **LOCATION** (to find out the size of the area affected by the hazard)
  - Which areas are affected by the hazard?
- **DURATION** (to find out how long the hazard is likely to last)
  - How long does the hazard last?
- **SEVERITY** (to find out how severe the hazard can be)
  - How severe can the hazard be? For example, water depth, wind speed, Richter scale for earthquakes.

This information will depend on the experiences and memories of local people. It is also helpful to ask technical experts and look at official statistics. Representatives from focus groups could be given responsibility to collect this information. The facilitation team may be able to help by finding information from sources further away, such as weather bureaus / meteorological offices, government departments or universities.

Secondary sources of information

Some of the information may need to be gathered from secondary sources. These include:

- local government statistics
- media reports
- weather reports
- NGO reports and evaluations
- United Nations reports
- information collected by Community Based Organisations.

Relationships with the organisations and individuals holding secondary information can be developed in the process of gathering information. Some of these relationships, particularly those with local government officials, may be important later on when developing an action plan to reduce disaster risk.

Ask each focus group to complete the following table:

Write the details in the boxes below.

HAZARD	
HISTORY	
FREQUENCY	
SPEED	
LOCATION	
DURATION	
SEVERITY	

Outsiders may have more awareness of possible hazards than local people themselves, especially if the hazard is rare and local people have no experience of it. If this is the case, it should be discussed with local people. In addition, outsiders with knowledge about climate change could share with people the possibility of increased weather-related hazards in the area in the future.

EXAMPLE OF HAZARD ASSESSMENT: Ethiopia

HAZARD	Drought
HISTORY	Regular periods of drought since mid-1980s
FREQUENCY	Every 5 years
SPEED	Indications over a period of months
LOCATION	Local area
DURATION	1–3 years
SEVERITY	Considered to be serious but not as bad as in the 1980s. The droughts lead to death and displacement of people, loss of livestock and crops. Livelihoods are badly affected.

EXAMPLE OF HAZARD ASSESSMENT: India

HAZARD	Flood
HISTORY	Flooding has become worse since the 1970s when embankments were built which trap floodwater.
FREQUENCY	Every year
SPEED	Sometimes there is about one week of rain before floodwaters become serious, but often it only takes a few hours.
LOCATION	Most of Dharbanga District in Bihar
DURATION	Up to 2 months
SEVERITY	Considered to be very serious. The flood damages many houses in the village and sometimes people are drowned.

STEP 3 # Vulnerability assessment

CAUTION The stages in the vulnerability assessment are in recommended order only. Some flexibility in approach will be needed. The questions in this section are only guideline questions and should be adapted as appropriate for the various focus groups and according to community issues.

When a hazard happens, elements at risk, such as people, crops, buildings and services, may be lost, damaged or disrupted. These elements are normally only identified after a disaster has happened in a 'damage and needs assessment'. The action taken is to distribute relief items to meet immediate needs. This action does not address the reasons why the disaster happened. The affected community could therefore be hit by another disaster in the future when the same or a different hazard strikes.

A needs assessment after a disaster looks at the immediate effects of the disaster on elements in the community. However, a vulnerability assessment looks at the potential for elements to be at risk. By acting on this type of information, it is possible to reduce the risk of disaster happening in the first place.

Vulnerability assessment involves looking at the:

- **ELEMENTS AT RISK** to establish **what** the impact of the hazard could be (mainly factual information based on people's past experience)

- **VULNERABLE CONDITIONS** to establish **why** the elements are at risk

- **PRESSURES** to establish **who** is creating the vulnerable conditions and **how** this is done

- **UNDERLYING CAUSES** to establish **why** vulnerable conditions are created or ignored by the pressures

- **SPIRITUAL CONTEXT** to consider what beliefs encourage, ignore or challenge vulnerability and its causes.

Each of the **five categories of analysis** (see page 25) is used to help ensure that a detailed understanding of vulnerability is achieved by the focus groups.

Be aware that what is considered a vulnerability in one category of analysis may be seen as a capacity in another category. Also, views on what is a vulnerability and what is a capacity may vary from one group to another. For example, the migration of men in search of work during hard times may be seen by women as a social vulnerability which could also lead to the spread of HIV. However, men might view migration as an economic capacity.

The most logical way to carry out the assessment is to take a category of analysis and work across the table on page 40. It can be helpful to tick the boxes in the table as the assessment progresses to make sure that nothing is missed out. In reality, cells of the table may be ticked in a random order, depending on the course of focus group discussions.

		Elements at risk	Vulnerable conditions	Pressures	Underlying causes
CATEGORY OF ANALYSIS	Economic assets				
	Natural assets				
	Constructed assets				
	Individual assets				
	Social assets				

NOTE: Conflict may be identified as a major factor influencing vulnerability to hazards. For example, people displaced due to conflict could be more vulnerable to HIV. If the local area is relatively secure, it may be appropriate to continue with the PADR process. However, if there is insecurity or the only way of addressing the vulnerability is for the conflict to end, use caution in continuing with PADR (see Section 5.2). During the action planning step, it might be decided that the only way to significantly reduce vulnerability is to address the conflict.

Activities

1 Organise focus group meetings.

2 Select a priority hazard.

3 Explain the different levels of vulnerability to the group, from elements at risk to underlying causes.

4 Select a category of analysis.

5 Ask the focus groups some general questions about the category of analysis for that hazard (see below).

6 Work through the table for that category of analysis from left to right, asking relevant questions as the table is completed.

7 Identify which vulnerabilities are of most concern to each focus group.

8 Repeat activities 4–7 with the other categories of analysis.

9 If there is another high-priority hazard, repeat activities 4–8, on another set of tables.

10 Add the findings of each focus group on to the large version of the Crunch model, displayed in the community. Ensure that any sensitive issues, such as references to specific people, are not included.

11 Consider interviewing key informants at this stage, if appropriate (see page 54).

Tools

Tools for the various categories of analysis include:

■ **ECONOMIC ASSETS** seasonal calendar

■ **NATURAL ASSETS** risk mapping, transect walk

■ **CONSTRUCTED ASSETS** risk mapping, transect walk

■ **INDIVIDUAL ASSETS** risk mapping

■ **SOCIAL ASSETS** Venn diagram

Category of analysis   # Economic assets

EXAMPLES OF GENERAL QUESTIONS

- What are the seasonal activities in the local area, and when do they occur?
  (such as agricultural activities, casual labour, migration)

- When is the hardest time of year (perhaps when different hazards combine to affect people's livelihoods)?

- What are the roles and responsibilities of men, women and children?

- How much do these activities earn?

- Do people sell produce, or is produce only for household consumption?

- Are people able to save any money? What do people save for?

- Do people borrow money for anything? What interest has to be paid?

- Do people own any land, or are they dependent on landowners?

EXAMPLES OF MORE SPECIFIC QUESTIONS

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?
• Which economic activities or assets are most affected by the hazard?	• Why does the hazard disrupt activities?	*Topics to consider:* • Work opportunities and wages • Credit and savings opportunities	• Are people denied access to work opportunities? Why? • Are people paid a fair wage? Why not? • Do people have access to finance schemes? Why not? • Is money lent under fair terms?
• Are people forced to sell assets? • What do people sell first, second, third?	• Why does this happen? Does anybody benefit from this?		
• Would basic needs (such as food and water) be affected, and how long does this last?	• Why are people unable to meet basic needs during the hazard?		
• Is it harder to borrow money during the hazard?	• Why can people not get a loan?		
Spiritual context • How does the spiritual context affect economic assets? • Does the church play any role in increasing economic vulnerability? If so, how?			

Category of analysis   # Natural assets

EXAMPLES OF GENERAL QUESTIONS

- What natural assets do people use?

  - Water for drinking

  - Water for irrigation, cooking, bathing, cleaning

  - Soil

  - Trees for produce, building materials, shade, fuel

  - Fuel for fire apart from wood, such as animal dung

  - Fish stocks

  - Minerals (such as clay, sand)

- How important are the climate, landscape and geographical location to people?

EXAMPLES OF MORE SPECIFIC QUESTIONS

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?
• Which natural assets are affected by the hazard? How are they affected?	• Why are these natural assets affected by the hazard? • How long does it take damaged natural assets to recover after the hazard? • Is there a lack of any natural assets? How does this affect people?	*Topics to consider:* • Local authorities • Land ownership • Logging / deforestation • Industry / pollution • Agriculture (large-scale) • Population growth	• Why is there a lack of natural assets? • Why are people denied access to natural assets?

Spiritual context

- How does the spiritual context affect natural assets?

- Does the church play a role in increasing vulnerability in relation to natural assets? If so, how?

Category of analysis

Constructed assets

EXAMPLE OF GENERAL QUESTIONS

• What man-made constructed assets exist in the local area? For example, houses, wells, tools and equipment, community buildings, communications (telephones, roads, transport), power supply.

EXAMPLES OF MORE SPECIFIC QUESTIONS

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?
• What are buildings constructed from (such as mud, brick)? • How are these buildings affected by the hazard? • How are water supplies affected by the hazard? • How are tools and equipment affected by the hazard? • How are government or community buildings affected by the hazard? • How does the hazard affect communications? • How are power supplies affected by the hazard?	• Why are these affected by the hazard?	*Topics to consider:* • Land ownership • Local authorities • Religious groups • Building regulations • Access to community buildings	• Why are people unable to prevent damage to constructed assets? • Why do owners of constructed assets not help and how could they help?

Spiritual context

• How does the spiritual context affect constructed assets?
• Does the church play any role in increasing vulnerability in relation to constructed assets? If so, how?

Category of analysis

Individual assets

EXAMPLE OF GENERAL QUESTIONS

• What skills, knowledge and individual strengths do local people have?

EXAMPLES OF MORE SPECIFIC QUESTIONS

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?

• Who is most likely to be affected:
  - during the hazard?
  - after the hazard?
• What happens to these people? (For example, are they killed, injured, affected by illness, displaced, traumatised?)
• Which diseases affect local people as a result of the hazard?
• Who is most likely to be affected by these?
	• Why are these people most likely to be affected? Consider:
	  - mobility
	  - health
	  - skills
	  - education and literacy
	• Is there any knowledge of what to do when a hazard hits?
		Topics to consider:
		• Health services
		• Social services
		• Education and training
			Topics to consider:
			• Access to health care
			• Access to social welfare schemes
			• Education policies and curriculum

Spiritual context

• How does the spiritual context affect individual assets?

• Does the church play any role in increasing individual vulnerability? If so, how?

Category of analysis   **Social assets**

EXAMPLES OF GENERAL QUESTIONS

- What relationships are there with:

    - Other community groups

    - Other communities

    - Employers

    - NGOs

    - Religious groups

    - People with power and authority (such as government officials)?

EXAMPLES OF MORE SPECIFIC QUESTIONS

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?
• How do relationships with different groups change in hard times? • What is the consequence of these changes? • How do relationships between men and women change?	• Why do some of these relationships get worse? • What more should be done to help? • Is there any conflict during hard times? • Is there any lack of leadership during crisis?	Topics to consider: • Local authorities • Traditional leadership • Social groups	• Do people have access to all the groups they want to? • How much influence do people have over the decisions made by leaders in times of disaster?

Spiritual context

• How does the spiritual context affect social assets?

• Does the church play any role in increasing social vulnerability? If so, how?

Prioritising vulnerabilities

Once all of the vulnerabilities have been identified, focus groups should come together to prioritise the vulnerabilities that they want to address. Opinions may differ within and between focus groups. The facilitator should help the groups to find common ground in order to identify the priority vulnerabilities for the community as a whole. Other local people could be present at this meeting in order to enhance local ownership of the process.

Once the key priorities have been identified, use the ranking tool given on page 32 so that each individual can vote for their priority vulnerability.

EXAMPLE OF
VULNERABILITY
ASSESSMENT:
drought in Ethiopia

Elements at risk	Vulnerable conditions	Pressures	Underlying causes
WHAT are the likely impacts of the hazard?	**WHY** does the hazard affect the elements at risk?	**WHO** is creating the vulnerable conditions? **HOW** is this done?	**WHY** are vulnerable conditions created / ignored by the pressures?
ECONOMIC ASSETS • Loss of crops • Loss of livestock • Forced sale of assets	• Livelihoods dependent on rain-fed agriculture • Extreme poverty • Decline in soil fertility	• MINISTRY OF HEALTH Limited healthcare provision • MINISTRY OF EDUCATION Limited support to primary schools	• POLITICAL GOVERNANCE State ownership of land, corruption, lack of transparency and accountability, lack of participatory development planning, lack of concern for poor people, regional conflict, ineffective United Nations systems
NATURAL ASSETS • Shortage of water • Dry pasture land • Soil erosion • Lack of wild food	• Unreliable rainfall • Environmental degradation • No forest	• MINISTRY OF AGRICULTURE Limited support for farmers • VILLAGE ELDER Promote large family size	• ECONOMIC POLICIES Unfavourable terms of trade, Western secular values, greed
CONSTRUCTED ASSETS • Shallow wells dry	• Limited water harvesting schemes • No protected water sources	• NATIONAL GOVERNMENT Development policy and budget, land ownership, environmental policy, disaster management and poverty reduction strategies	• CULTURE Inappropriate cultural customs and practices
INDIVIDUAL ASSETS • Increased malnutrition • Increased morbidity • Increased mortality • Loss of strength • Increased stress	*Limited knowledge of:* • Natural resource management • Health care • Family planning • Government structures and processes • Human rights • Low literacy / education • Lack of vocational skills	• WORLD TRADE ORGANISATION Terms of trade • INTERNATIONAL FINANCIAL INSTITUTIONS Debt servicing • NGOS Development policies and practice	
SOCIAL ASSETS • Increased conflict within and between families • Disruption to education • Increased migration	• Cost of education • Large family size • Competition for resources • Gender inequalities • Many traditional ceremonies • Weak civil society	• COPTIC CHURCH Festivals and ceremonies reduce number of livestock	

Spiritual context
• Animistic beliefs, expensive religious ceremonies

STEP 4   # Capacity assessment

Capacity assessment should come after the vulnerability assessment, rather than at the same time. This is because people often find it difficult and confusing to constantly change from discussing their weaknesses and problems (vulnerabilities) to discussing their strengths and opportunities (capacities). There are, however, some exceptions to this rule.

Capacity assessment involves looking at:

- **PROTECTED ELEMENTS** – to identify which elements are not badly affected by the hazard.

- **SAFE CONDITIONS** – to identify what capacities exist in relation to a hazard. These strengths may already be used, or have potential use.

- **PRESSURE RELEASES** – to establish who is helping to create safe conditions and how this is done.

- **POSITIVE UNDERLYING CAUSES** – to consider what political ideas, economic principles, and cultural practices support and motivate those helping to create safe conditions.

- **SPIRITUAL CONTEXT** – to consider the ways in which the spiritual context helps to build capacity and reduce vulnerability.

Capacities are sometimes referred to as 'coping mechanisms' or 'survival strategies'. However, these terms may not always be positive and healthy. For example, a household may cope with hardship through criminal activity, commercial sex work or selling of children.

Be aware that people might try to hide their strengths if they think they will get less outside help after revealing them. This is particularly the case where relief dependency has developed. Capacity assessment should therefore be closely linked with 'action planning' so that people have a reason for sharing their strengths.

Activities

1   Meet with focus groups.

2   Explain to the group what capacities are and why they are important.

3   Select a hazard that was seen as a priority during the vulnerability assessment.

4   Select a category of analysis (see page 25).

5   Work through the table for that category of analysis from left to right.

6   Repeat activities 4–5 with the other categories of analysis.

7   If there was another priority hazard that was focused on in the vulnerability assessment, select it and repeat activities 4–6.

8   Add the findings of each focus group on to a large version of the Release model displayed in the community, demonstrating how these strengths can be used to overcome vulnerabilities.

Tools   Tools for the various categories of analysis include:

- **ECONOMIC** seasonal calendar, time line

- **NATURAL** risk mapping, transect walk

- **CONSTRUCTED** risk mapping, transect walk

- **INDIVIDUAL** risk mapping

- **SOCIAL** Venn diagram.

Category of analysis   **Economic assets**

EXAMPLES OF SPECIFIC QUESTIONS

Protected elements	Safe conditions	Pressure releases	Positive underlying causes
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?
• Which economic activities or assets are least affected by the hazard? • Which assets are never sold, even when times are very hard? • Is it possible to borrow money in an affordable way if necessary?	• Why are certain economic activities and assets not affected by the hazard? • Why are people not forced to sell certain assets? • How are people able to meet their basic needs (such as food and water) when a hazard happens? • Are there reserves of food or money for use in hard times? • Remember: some economic capacities may be illegal (such as cattle stealing) or damaging to health (such as selling sex)	• What organisations or institutions are present? (such as CBO, church, government) • How do these help local people economically in times of crisis? (such as loans, providing work, gifts in kind)	• What political ideas and policies are helping? • What economic principles are helping? • What cultural activities and beliefs are helping? • Are people provided with good work opportunities? If so, why? • Are people paid a fair wage? • Do people have access to finance schemes? • Is money lent under fair terms?

Spiritual context

• What spiritual beliefs encourage the reduction of vulnerability?

• What strengths does the church have to help improve economic capacity?

Category of analysis **Natural assets**

EXAMPLES OF SPECIFIC QUESTIONS

Protected elements	Safe conditions	Pressure releases	Positive underlying causes
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?
• Which natural assets are not affected by the hazard? (such as trees, water, pasture, high land)	• Why are natural assets not affected by the hazard?	• Who owns or controls the use of natural assets in the local area? • Is greater access given to natural assets in times of crisis?	• What political ideas are helping? • What economic principles are helping? • What cultural activities and beliefs are helping?
• Do any natural assets benefit from the hazard?	• Why do some natural assets benefit from the hazard? • Which natural assets recover quickly after the hazard? Why? Are they protected? • Are any natural assets used in times of crisis (such as wild berries, roots, fish)? • Are natural assets used in special ways to protect people (such as floating bamboo platforms or banana tree rafts during floods)?		

Spiritual context

• What spiritual beliefs encourage the reduction of vulnerability?

• What strengths does the church have to help improve natural capacity?

Category of analysis   **Constructed assets**

EXAMPLES OF SPECIFIC QUESTIONS

Protected elements	**Safe conditions**	**Pressure releases**	**Positive underlying causes**
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?
• What buildings are not affected by the hazard? • Are water supplies protected from the hazard? • Are tools and equipment protected from the hazard? • Are government or community buildings protected from the hazard? • Are communications protected from the hazard? • Are power supplies protected from the hazard?	• Why are constructed elements not affected by the hazard? • How are constructed elements protected from the hazard? • Are buildings used in special ways (such as for storage, shelter): - before the hazard? - during the hazard? - after the hazard? • Are people able to protect buildings (such as build raised platforms for houses in flood prone areas)? • Do people have alternative means of transport if roads are damaged? • Do people have alternative forms of power if electricity supply is cut off?	• Who owns or controls the use of safe buildings during times of crisis? • Who owns or controls the use of vehicles or boats? • Who has access to a phone or radio? • Do poor people have easy access to safe buildings during times of crisis? • Do poor people have access to transport and communications during times of crisis?	• What political ideas are helping? • What economic principles are helping? • What cultural activities and beliefs are helping?

Spiritual context

• What spiritual beliefs encourage the reduction of vulnerability?

• What strengths does the church have to help protect constructed assets?

Category of analysis   **Individual assets**

EXAMPLES OF SPECIFIC QUESTIONS

Protected elements	Safe conditions	Pressure releases	Positive underlying causes
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?

• Who is least affected:
  - during the hazard?
  - after the hazard?
	• Why are these people least affected? Consider:
	  - mobility
	  - health
	  - skills
	  - education and literacy
	  - traditional knowledge
	 • Do some people have particular knowledge of what to do when a hazard hits (such as the elderly)?
	 • Does anybody take on a special role to help others during a hazard?
		• Who has the knowledge/ skills to cope with disaster?
		 • How are knowledge and skills passed on to others?
		 • Is there a system for passing on warning messages?
			• What political ideas are helping?
			 • What economic principles are helping?
			 • What cultural activities and beliefs are helping?

Spiritual context • What spiritual beliefs encourage the reduction of vulnerability? • What strengths does the church have to help improve individual capacity?			

Category of analysis **Social assets**

EXAMPLES OF SPECIFIC QUESTIONS

Protected elements	Safe conditions	Pressure releases	Positive underlying causes
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?
• Which groups are least affected by the hazard? • Are any relationships strengthened by the hazard?	• Why are some groups able to cope with the hazard? • Why do some relationships grow stronger during difficult times? • What role does extended family play?	• Who takes control or shows leadership during times of crisis? • Who gives most help to those affected? • Is help given fairly to all local people who are affected? • Do the poorest or most needy get any special assistance? • Do leaders give clear direction in a crisis?	• What political ideas are helping? • What economic principles are helping? • What cultural activities and beliefs are helping? In this culture, how do people help each other in times of crisis?

Spiritual context

• What spiritual beliefs encourage the reduction of vulnerability?

• What strengths does the church have to help improve co-operation and care?

EXAMPLE OF
CAPACITY
ASSESSMENT:
drought in Ethiopia

Protected elements	Safe conditions	Pressure releases	Positive underlying causes
WHICH elements are not badly affected by the hazard?	**WHAT** capacities exist that help protect elements at risk from the impact of the hazard?	**WHO** is helping to create safe conditions? **HOW** is this done?	**WHY** are safe conditions being supported?
ECONOMIC ASSETS		• United Nations and NGOs providing relief aid	• Strong culture of community togetherness
• Some crops are not badly affected • Some types of livestock are not badly affected • Handicrafts are not badly affected	• High diversity of crops • High diversity of livestock • Land can be rented out • Some family assets are sold • Ability to carry out handicrafts • Informal saving schemes	• Informal money lenders who provide credit • Strong local leadership • Local government schemes which target poor people	• Oral culture tradition to pass on knowledge and skills
NATURAL ASSETS			
• Wild herbs and roots • Some vegetation	• High biodiversity • Land rotation		
CONSTRUCTED ASSETS			
• Hospital • Village health post • Village primary school • Village market			
INDIVIDUAL ASSETS			
• Skills • Knowledge • Labour (though possibly weakened)	• High motivation to learn • Ability to survive with minimal food • Knowledge to find wild food • Traditional farming skills • Knowledge of local medicines • Ability to work and migrate • Higher literacy of youth		
SOCIAL ASSETS			
• Religious groups	• Established, stable village in conflict-free area • Tradition of sharing labour and oxen • Tradition of exchanging agricultural products		

Spiritual context

Strong religious belief. Active church.

STEP 5 # Key informant interviews

Before planning action, it is important to gain a wider understanding of vulnerabilities and capacities by talking to those who have an influence on local people. Some key informants may already have been identified, either by community leaders or because they were seen as 'pressures' in the vulnerability assessment or 'pressure releases' in the capacity assessment. There may be issues, concerns and pressures which influence their decisions.

Local government officials are crucial to the success of disaster risk reduction activities because they control many resources and have influence over development activities in the area. Ensure that local government officials are interviewed. Any community-based actions should complement local government development plans wherever possible.

By communicating with key informants, there will be an increased chance that activities to reduce vulnerability will be supported, or at least not challenged, by those in power.

Activities The facilitation team, including local people, should carry out these activities.

- Identify key informants, using the advice of community leaders and the results of the vulnerability assessment.

- Develop questions for semi-structured interviews.

- Interview the key informants.

- Bring this information together and present it to the community (in some cases it may be possible or even necessary to invite the key informants, particularly government officials, to meet the community themselves to discuss vulnerabilities and possible actions).

Some guideline questions which could be used during the interviews are given below. These need to be adapted according to the key informant, and the situation in question. For example, if interviewing a school head-teacher, there may be more questions relating to the hazard impact upon the school, or the role of the school in times of disaster.

- How long have you lived or worked in the area?

- What is your role?

- What hazards affect local communities?

- Do these same hazards affect you? If so, how?

- Who do you consider to be the most vulnerable in the local area?

- What do you consider to be the priority vulnerabilities of local people?

- Why do these vulnerabilities exist?

■ How do people cope in times of disaster?

■ What services are provided by local/district/national government in times of disaster?

■ What capacities exist in the local area to reduce vulnerability to hazards and how can these be strengthened?

Discuss with the key informants the differences between their priorities and focus group priorities. These findings will help to influence the action plan.

STEP 6 # Action planning

Ensure that this last step is given enough focus and time. If vulnerabilities and capacities are assessed in relation to different hazards, but no action is taken to reduce risk, time is wasted, relationships can be damaged and disaster risks will remain.

It is important to carry out the action planning soon after the capacity assessment so that people will continue to engage with the process and can see the fruits of their work. The action plan should address the priority vulnerabilities and build the capacities for long-term and sustainable risk reduction.

CASE STUDY
Action planning
ideas in Malawi

Vulnerability and capacity assessments revealed that changes in weather patterns were resulting in food insecurity. The presence of HIV and AIDS is weakening the workforce and affecting the household economy. Ideas about action that could be taken to reduce the risk of disaster included:

■ Grow more drought-resistant crops to ensure supply of food between harvests, if traditional crops fail.

■ Improve farming techniques, such as conservation farming where rain water is collected and used efficiently.

■ Use measures that both address current needs and reduce long-term vulnerability. For example, food or cash for work schemes during times of drought could be used to build small-scale irrigation systems.

■ Do advocacy work to gain improved government services in health, agriculture, veterinary care and education.

■ Investigate the introduction of savings and credit groups.

■ Increase tree planting, both to protect homes from floodwater and to replace forests cut down for firewood or house construction.

■ Investigate new income-generating schemes, including small livestock or vegetable cultivation.

■ Train volunteers to monitor flood levels, set up early warning systems and learn First Aid.

■ Link community plans with government disaster management plans.

In larger communities it is not wise to invite everyone to carry out the action planning. This may result in confusion and lengthy discussions without decisions being made. It may be more appropriate for representatives to carry out action planning. These could be a few members of the focus groups, community leaders and a limited number of other people who volunteer to participate.

Action planning should be connected as closely as possible to the work of an existing community based organisation (CBO), such as the local church. Action planning will work best if members of the church or CBO have been part of the facilitation team.

Through this approach, any new activities agreed will receive long-term support. From the church or CBO a 'Volunteer Task Force' with specific disaster-related responsibilities can be formed. If a church or CBO does not exist, then the Volunteer Task Force members should be elected by local people.

The effectiveness of activities will also be improved if the community receives support from the local government. If government officials have been involved in earlier stages of the PADR process, it may be appropriate for them to be involved in this decision-making step. Otherwise, opportunities should be found to discuss community action plans with government officials later on.

Photo: Caroline Irby, Tearfund

A Volunteer Task Force organises an evacuation drill.

Activities

1 Meet with the church, or community based organisation (CBO), to discuss the idea of them helping local people to take the action plan forward.

2 Organise a meeting with appropriate key informants and community representatives.

3 Briefly describe what has happened in the process so far, by referring to the Crunch model.

4 Explain that the purpose of the meeting is to draw up an action plan.

5 Explain the Release model and how this represents how the vulnerabilities are going to be addressed.

6 Remind people of the priority hazards and vulnerabilities and the main capacities that were identified.

7 Ask people to identify possible activities, solutions and approaches to address these priority vulnerabilities. Where appropriate these should be based on the capacities identified earlier.

8 Discuss past activities used to reduce the risk of disaster or to help recovery after a disaster. Discuss how effective these activities have been, and what changes or improvements could be made.

9 Ask people to complete the table on page 58 to show which of the possible activities could be carried out:

• **Immediately, at little or no cost** and without external assistance (such as in a flood-prone area, painting flood-level height marks on buildings, trees or poles to indicate danger levels)

• In the **medium term,** with or without external assistance

• In the **long term,** with or without external assistance.

	WITHOUT EXTERNAL ASSISTANCE	WITH EXTERNAL ASSISTANCE	
		FINANCE	**HUMAN RESOURCES**
IMMEDIATELY			
MEDIUM TERM			
LONG TERM			

Encourage them to start with immediate activities that do not require external assistance. This will help to maintain enthusiasm and motivation.

10 Discuss the advantages and disadvantages of each suggested activity, considering time, cost and practicality. Agree on activities that should be carried out. Ensure that suggested activities will not lead to new risks.

11 Once the activities are identified, a 'Volunteer Task Force' should be created with special disaster-related responsibilities. The church or a CBO should be encouraged to take leadership of this.

12 Decide which individuals will form the Volunteer Task Force. Select activities and draw up an action plan containing a schedule, roles and responsibilities of these people, and the means of accountability to ensure that each task is completed properly.

13 Check that the action plan links with any government disaster management plans.

14 Ensure that others in the community agree with the action plan. This may involve organising a public meeting.

15 Display the action plan alongside the Crunch model and Release model where everyone in the community can access it.

16 It may be appropriate to mark the start of the disaster risk reduction action plan with a celebration.

17 Take action!

EXAMPLE
Community action plan in a flood-affected area

Priority vulnerability	Person/Group responsibility	Activity	Schedule	Who is accountable
Low-lying areas affected by flood waters	Volunteer Task Force member	Paint flood levels on important structures	Within two days	Church / CBO or Community leader
Lack of coordination in disaster situation	Volunteer Task Force leader with members' support	Develop community evacuation plan with regular practice drills	To be completed four weeks prior to the normal flood season	Church / CBO or Community leader
Lack of facilities for evacuees at local school	Volunteer Task Force leader	Negotiate with school or local government for improved facilities	Within three months time	Church / CBO or Community leader

External assistance

To challenge the pressures and underlying causes affecting the vulnerability of local people, action may need to be taken at local, national or international levels. External assistance may therefore be needed, such as from local government or NGOs. This can be in the form of:

FINANCE   For example, finance for constructed risk reduction measures such as flood platforms, or for the introduction of drought resistant crops and raised tube wells. Measures that require external financial support are often provided on a food-for-work or cash-for-work basis to help encourage ownership and to provide employment.

ADVOCACY   This may involve gaining support for local plans from government officials and other 'powerful' groups. At a national level, this might involve incorporating disaster awareness in school curricula. Internationally, it might involve advocacy on policy issues such as fair trade or debt relief.

TRAINING   At regular intervals (such as quarterly) the facilitation team may carry out training or motivation activities with the Volunteer Task Force and other appropriate local people in order to maintain interest and enthusiasm.

Where external assistance is needed, the facilitation team should try to help the Volunteer Task Force to obtain such assistance.

Advocacy

Advocacy is often necessary to challenge the pressures and underlying causes affecting vulnerability. People are often cautious about advocacy work because they associate it with aggressive campaigns targeting government departments. However, this is only one type of advocacy work. In many cases, collaboration is more appropriate and effective than confrontation.

Even by following the PADR process, advocacy is being carried out. This is because the PADR process:

■ exposes and analyses underlying causes of people's vulnerability

■ engages with local government officials and others with power and influence through semi-structured interviewing of these key informants.

Other forms of advocacy include writing letters and reports, involving the media, planning campaigns and prayer.

Government will not necessarily be the only target of advocacy work. Other powerful groups such as wealthy landowners, religious groups and business people may need to be influenced.

Advocacy work could be carried out by community members alone. However, they may gain more influence by inviting the local church, CBOs or development organisations to work with them.

CASE STUDY
Advocacy with
landowners in India

In Bihar, Tearfund partner, The Discipleship Centre, advocated on behalf of poor rural villagers living on low-lying land which is regularly flooded. Before the advocacy work, villagers had no safe evacuation route when the floodwaters rose, because the safest route meant going across land owned by others. They were not allowed to trespass on this land. The Discipleship Centre was able to gain permission from 47 landowners to build a raised evacuation path across this private land. Relationships between poor villagers and wealthy landowners have improved since this intervention.

*Children practising a
flood evacuation across a
raised escape route.*

Photo: Caroline Irby, Tearfund

CASE STUDY
Access to credit
in Malawi

One of the causes of food insecurity in Malawi is the inability of poor farmers to afford the high cost of fertilisers. They are unable to obtain low-interest loans with which to buy the fertiliser. An NGO approached a local credit institution, and after some discussion, the management agreed to provide loans to farmers at affordable rates. Advocacy brought success!

How to organise advocacy work

This table shows the steps that should be taken to organise advocacy work.

TOPIC	CONSIDER
ISSUE / PROBLEM	**What is the problem?** This will have been identified during the hazard and vulnerability assessments.
EFFECTS	**What are the effects of the problem?** The PADR process will have provided a lot of information about how the problem is affecting local people. This will be understood in terms of economic, natural, constructed, individual and social effects.
CAUSES	**What are the causes of the problem?** The vulnerability assessment will have identified the pressures and underlying causes.
POTENTIAL SOLUTIONS	**What needs to be done?** What are possible solutions? Ideas may have been discussed already during action planning. What are their advantages and disadvantages? Are the ideas realistic? What will be the indicators of success?
TARGETS	**Who has the power to do something to bring about change?** This is likely to be the government officials but may also include churches, businesses, community leaders and Community Based Organisations. The PADR process should have helped to improve relationships between local people and these groups. Therefore, they may be very willing to discuss ideas, and advocacy work may be quite easy.
POTENTIAL ALLIES	**Who is trying to address the issue at the moment?** Is it appropriate to work with them? Is their activity effective? Are there people who are not yet addressing the issue, but could be persuaded to help?
RISKS AND ASSUMPTIONS	**What risks are there in getting involved in this advocacy work?** How can these risks be reduced? What are the consequences if the issue is not addressed? Have we made any assumptions about the underlying causes of people's vulnerability and about those in power? If so, who should we speak to in order to understand the reality? Do the facilitation team and local people have the ability to address this problem?
METHODS	**What methods can be used?** Can these methods be carried out confidently? Have they worked before? Are there alternatives? Do the necessary skills and resources exist?

As advocacy work is planned, it can be helpful to fill in the table below to summarise the work that will be carried out, and to show when it will happen and who will be responsible.

EXAMPLE OF
AN ADVOCACY
STRATEGY:
resettlement
of flood-affected
households in the
Philippines

GOAL	Prevent resettlement of residents to inland areas following devastating flood
OBJECTIVES	Protect fishing livelihoods of affected population by ensuring new houses are built close to the coastline
SUCCESS INDICATORS	Government willing to reconsider alternatives
EVIDENCE	Invitation by government to contribute to debate
TARGETS	Provincial and national government departments
ALLIES AND OPPORTUNITIES	Local government officials (Mayor) Local NGOs Local church
METHODS AND ACTIVITIES	Collect signatures of local residents opposed to resettlement Represent local residents in government debates
RISKS AND ASSUMPTIONS	Resettlement on coastline is half-hearted and homes are built on areas at risk from natural hazards
TIME SCALE	Three months for change to resettlement plan
RESPONSIBILITY	Volunteer Task Force with support from NGO

For more information on carrying out advocacy work, see the *Advocacy toolkit* (ROOTS 1–2), which can be ordered from roots@tearfund.org or downloaded from www.tearfund.org/tilz.

Improving effectiveness

5.1 Measuring effectiveness

The effectiveness of the PADR process should be measured by comparing the impact of any future hazard with the impact of the same hazard before PADR was carried out. Damage and needs assessment data can be used to do this.

In practice it may be difficult to say whether activities have reduced disaster risk because the hazards may be different in their characteristics from year to year and vulnerabilities may change too. For example, there may be a bad flood one year, but a less serious flood the following year. However, some improvement in the local situation should be evident, particularly if compared with other communities affected by the same hazard, which have not taken action to reduce risk.

The findings of these comparisons should be fed back into the ongoing activities in order to further reduce disaster risk.

Regular monitoring of activities is also needed as the scale and nature of the hazards and people's vulnerability to them may change. Activities may need to be adjusted to suit new circumstances.

It is advisable to repeat the whole PADR process every three years or so.

The PADR process can produce some other positive impacts. For example, the confidence of local people could be built, and people could become more caring. It is important to celebrate these impacts.

CASE STUDY
Comparing the
impact of floods
in Bihar

The floods in Bihar, India, in July 2004 were considered by the local media to be the worst in 50 years. Over 21 million people were affected, 1.5 million hectares of agricultural land was flooded and 674,000 houses were destroyed, with many more being damaged. 585 people lost their lives.

Before these floods, Tearfund partner, The Discipleship Centre, worked with local people to identify disaster risk reduction activities. For example, a flood response team was set up. An evacuation procedure was developed. The most vulnerable members, including children, women and people with disabilities, were prioritised for transportation by boat to safety. They took shelter under temporary bamboo and plastic sheeting structures that had been assembled on high ground before the monsoon season. The difference between communities where disaster risk reduction activities had been carried out and others in the area that had not benefited from this approach was clear. Those communities without disaster risk reduction measures were disorganised when the floods came, resulting in more deaths and loss of livestock and household belongings.

5.2 Using PADR in different contexts

PADR may need to be adapted slightly for use in urban and post-disaster contexts and in situations of past or present insecurity.

Urban contexts

For urban contexts, three issues should be considered.

1   **IN URBAN AREAS, A BETTER TERM FOR 'HAZARD' MIGHT BE 'THREAT'**

People living in an urban slum might say that the greatest problems they face are:

- forced eviction from the slum due to illegal settlement
- riots and other forms of violence, such as domestic violence
- theft.

Rather than using the term 'hazard', people might prefer to use the term 'threat'. This is because people often feel threatened by the action of other people, rather than natural hazards. The facilitation team might therefore prefer to call STEP 2 'Threat assessment' rather than 'Hazard assessment'. Since threats can be less obvious to the whole community, different opinions may be expressed during the threat assessment. These threats should be prioritised carefully in order to gain ownership by the whole community.

However, there may be specific hazards in urban areas which people might call 'hazards'. For example:

- Fire, due to the houses being very close together.
- Flood due to the location of the settlement on marshy land, or because the presence of roads and other artificial ground surfaces gives less opportunity for the water to drain away.

EXAMPLE
Using PADR in a
slum in Delhi, India

> Local people identified the following threats: malaria, fire, flood, crime and demolition. Malaria was selected as the most important.
>
> During the vulnerability assessment, the following vulnerabilities were identified:
>
> - Element at risk: human lives
> - Vulnerable conditions: stagnant water in which mosquitoes can breed
> - Pressure: local authority does not remove rubbish, which then blocks drains
> - Underlying cause: the local authority will not take action because the settlement is illegal and likely to be demolished.
>
> Action planning could involve local people clearing the drains themselves, education about making and using mosquito nets and advocacy with local authorities to legalise the settlement or provide suitable alternatives.

2   SOCIAL NETWORKS

There is often less co-operation and unity among urban people than in rural areas. This is because people are separated from traditional networks and other social capacities (such as village councils, farmers' cooperatives, informal social gatherings of women) when they move to urban areas. Urban slums often consist of people from many different places. Even when people have lived in an urban area for many years, they may find they have fewer connections with their neighbours than they had in rural areas. One key way to reduce vulnerability to disaster in urban areas can therefore be to encourage stronger social groupings.

3   CAPACITIES AND VULNERABILITIES

While people in urban areas may have fewer social capacities, they do have other capacities that do not exist in rural areas. For example, they are nearer to emergency services. Medical facilities may also be close by, along with schools and other government and NGO services.

However, there is a difference between 'availability' and 'access'. The facilities might be available, but people in urban slums may remain vulnerable if they are excluded from accessing them. People in slums may live near a health centre, but may be excluded from using it because they cannot afford the healthcare. Emergency services may exist, but a fire engine may not be able to access an urban slum if the streets are too narrow. Development of social capacities, such as a local Fire Committee, may be more effective in reducing risk from fire in slums.

Post-disaster contexts

PADR is not only appropriate for use before a disaster. It can also be used after a disaster in order to improve the quality and sustainability of relief, rehabilitation and reconstruction work.

Traditionally, disaster relief agencies carry out damage and needs assessments after a disaster. The aim is to try to save lives and help repair the damage. However, there are problems with this narrow approach:

- It focuses on short-term needs, rather than addressing the underlying vulnerabilities that led to the disaster

- Local capacities can be damaged as people are often treated as helpless victims

- Relief dependency is often created because people begin to rely too much on outside help

- If the disaster is not understood, relief work can sometimes encourage the very risks that enabled the disaster to happen, or create new risks.

By using PADR after a disaster, traditional approaches to relief can be replaced with more effective 'developmental relief'. This involves looking at long-term reduction in vulnerability of local people. The table on page 66 highlights the key differences between a traditional and a developmental approach to relief.

Traditional and
developmental
approaches to relief

TRADITIONAL RELIEF	DEVELOPMENTAL RELIEF
People are treated as helpless victims	People are treated as survivors with strengths and resources
People are passive beneficiaries of external aid	People's capacities are built on through their active participation
Damage and needs assessments are carried out quickly by external experts	Assessments are carried out with local people
The focus is on the provision of humanitarian aid (such as food and shelter) and technical solutions	Assistance also includes addressing social and other aspects of people's vulnerability
Focus is on the individual	Focus is on the community and the way it is organised
Donors decide what is needed	Local people participate in decision-making
Provision of aid is the responsibility of the relief agency	Disaster management is everybody's responsibility and the relief agency plays a supportive role
The goal is to meet immediate needs and get things back to the way they were	The goal is to reduce people's vulnerability to future hazards in addition to meeting immediate needs

When carrying out PADR after a disaster the following points should be considered:

Timing   The PADR process of identifying vulnerabilities and capacities in relation to all the hazards experienced in the local area should not be carried out until there is no immediate risk to people's lives, basic needs have been met and people are feeling less traumatised.

The community leaders should decide when the time is right to begin PADR.

Participation   Ensure people are as fully involved in the process as possible. Relief workers may need to change their style and approach as they usually focus on the speed of aid delivery.

Hazards   People may find it difficult to think about potential future hazards, as the hazard which caused the recent disaster will be at the front of their minds. Even though people might be at higher risk of other hazards in the future, it may be best to carry out the assessment for this hazard first and carry out PADR for other hazards in a few months' time. For example, in Gujarat, India, people affected by an earthquake which killed 20,000 people, prioritised the earthquake hazard above drought, even though earthquakes do not happen very often and drought affects lives and livelihoods each day.

Capacities   Emphasis should be placed upon identifying and discussing local capacities, as these may be less evident after a disaster and are often overlooked by relief agencies. People may find it particularly hard to recognise their capacities after a disaster, so the facilitator should emphasise positive aspects to start discussions. For example, they could ask the question: 'You have survived a dangerous event; how did you do this?'

CASE STUDY
Using PADR after
the tsunami in
Banda Aceh,
Indonesia

> In Banda Aceh, Indonesia, PADR was carried out five months after the tsunami disaster. People were interested in taking part in the process because their livelihoods were not yet restored and so they had more spare time. People felt that storms and earthquakes presented the greatest risk in the future. All the groups agreed on the safest local place – a piece of ground on a hill. Findings of the assessment were used in the planning of the shelter, livelihoods and education components of the relief programme.

Post-conflict or insecure environments

Where violent conflict exists, PADR should be used with caution. An experienced facilitator should be used. Key principles include:

■ sensitivity, especially if people begin to think of painful memories.

■ neutrality, so that PADR is not seen to be helping one side or the other. Seek to gather information from opposing groups.

■ confidentiality, not revealing any information that may give an advantage to the opposing side, or put individuals in danger.

In extreme cases, it may be best to first address the conflict using specific conflict analysis tools and appropriate peace-building responses.

In a post-conflict situation or where there is little insecurity, PADR can be an effective tool in helping people to understand their situation and move towards peace. This is because PADR encourages community members to work together and identify common aims. The community may identify insecurity as a factor influencing vulnerability and seek to address this during the action planning step. However, facilitators should ensure that this is done in a healthy way. If the PADR process seems to be making tensions worse, it should be stopped and appropriate conflict analysis or peace-building tools should be introduced.

Focus groups   Facilitators should be aware that community members or powerful people may be suspicious of focus groups. It is important that everyone linked to the community is aware of the PADR process and what it involves so they do not feel threatened by it.

It may be wise to choose an appropriate time and place for focus groups to meet in private in case they want to discuss sensitive issues. Ensure that such discussions are for the benefit of strengthening peace and not an opportunity for the focus groups to discuss how they might increase tensions.

Key informants

Ensure that key informants are drawn from people on all sides of the conflict, so that differing views can be heard and understood. Be aware that sometimes, national government or international groups seek to use or to increase local tensions in order to achieve their own objectives.

Capacity assessment

Some local capacities may have been negatively affected by the insecurity. For example, traditional grazing lands may no longer be available, or areas where firewood can be gathered may become too dangerous. Encourage people to identify these lost capacities as well as the ones they currently have. Ensure that part of the action planning aims to re-build the capacities they have lost.

Action planning

If there is no established group to take the action plan forward, it may be necessary to focus planning on the household level rather than the community as a whole. Once relationships start to be built, it may become possible to identify a Volunteer Task Force.

5.3 Mainstreaming important issues

There are some important issues that should be mainstreamed into the work we do. In other words, they should become an integral part of all our work and influence the way things are done. In relation to best practice in disaster management, we need to be particularly aware of the following:

- HIV and AIDS
- climate change
- gender sensitivity
- child sensitivity.

These subjects have already been highlighted in this book. The paragraphs below describe why this is important and how this has been done.

HIV and AIDS

Millions of people are living with HIV and AIDS around the world, and many millions more are affected in some way. The majority of people living with HIV are in southern countries.

HIV and AIDS are devastating life, increasing poverty and making communities unstable. As a result, people are becoming more vulnerable to natural and man-made hazards.

While HIV and AIDS increase the vulnerability of people who face disaster, they are also a hazard in their own right. Poor people are often least able to cope with the hazard of HIV and AIDS, leading to long-term disaster. Disaster response tends to happen when hazards hit local people over a short time. However, since HIV and AIDS are a less obvious disaster, which happens over a long period of time, responses are taken less seriously. As a result, the underlying causes that make people vulnerable to HIV and AIDS are rarely addressed.

Natural and man-made disasters around the world are making people vulnerable to HIV and AIDS. For example, conflict can increase the spread of HIV through rape as a weapon of war and because partners are separated for long periods of time. Making a response to HIV and AIDS becomes even more challenging in times of disaster. If HIV and AIDS are not taken into account when planning responses to disaster, levels of infection could increase because people may be forced into risky behaviour in order to survive.

Mainstreaming HIV and AIDS

Efforts to reduce disaster risk should take account of those living with, and affected by, HIV and AIDS. This involves including them in decision-making about the planning, design, implementation and evaluation of activities to reduce disaster risk.

HIV and AIDS should be considered as important factors that make households vulnerable to disasters. By addressing HIV and AIDS, the impact of a future hazard on these households could be reduced.

Disaster mitigation measures should take account of the needs of people living with HIV and AIDS. For example, evacuation plans could ensure that those who are sick with AIDS are evacuated first, along with the elderly and others lacking mobility.

After a disaster, the reconstruction phase should be carefully designed so that people's vulnerability to HIV is not increased. For example, if people are moved away from their homes while infrastructure is rebuilt, efforts should be made to keep families together and provide income-generating opportunities so that women are not forced into commercial sex work.

HIV and AIDS are increasingly being recognised as a key issue by many aid agencies and policy-makers. The following guidelines have been developed to help organisations mainstream HIV and AIDS in disaster mitigation and response:

■ UNAIDS, *Guidelines for HIV interventions in emergency settings.*

■ Sphere Project's *Humanitarian Charter and Minimum Standards in Disaster Response.*

Climate change

Climate change is discussed with regard to the different hazards that face people, and how weather-related hazards are becoming more frequent and severe. This is increasing the risks to vulnerable people and is also generating new risks to which people need to adapt. Advocacy work is vital. For example, countries should be encouraged to reduce gas emissions that generate harmful atmospheric effects such as global warming.

Gender sensitivity

Women are often given a lower status in society than men. Decision-making is often carried out by male community leaders. Women's household duties can be lengthy and exhausting, ranging from childcare, cooking and cleaning to the fetching of water and doing hard manual labour.

Gender inequality can have a negative impact on women's vulnerability to hazards. For example, in many cultures, women do not know how to swim because it is seen as unacceptable behaviour. Women are therefore very vulnerable during floods.

PADR should be carried out with focus groups of women, in order to ensure that their different perspectives are heard and understood. Action planning should take account of gender issues and can be a powerful challenge to day-to-day gender inequalities in the community.

Child sensitivity

Children can be particularly vulnerable in times of disaster. They are dependent on others for protection, as they are less able to care for themselves until they reach a certain age and maturity. If they become orphans, perhaps after losing their parents through AIDS, they will be especially vulnerable. When times are particularly difficult for a household, children are sometimes exploited sexually or economically.

It is important that the PADR process encourages an understanding of the views and experiences of children. It is therefore helpful to have a focus group consisting of only children. Some of the questions and participatory tools may need to be adapted so that they are appropriate for children.

Children should not be forgotten during action planning as they can play an important part. For example, children are often eager to learn about what to do in an earthquake and can be effective in passing on such messages to their families and other children.

Picture of tsunami drawn by children in Banda Aceh, Indonesia.

Useful resources

- Abarquez I and Murshed Z (2004) *Community-based disaster risk management: Field practitioners' handbook,* Asian Disaster Preparedness Center

- Anderson M and Woodrow P (1998) *Rising from the ashes: Development strategies in times of disaster*, ITDG Publishing, www.itdgpublishing.org.uk

- Blackman R (2003) ROOTS 4: *Peace-building within our communities*, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Blackman R (2005) ROOTS 8: *HIV and AIDS: taking action*, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Blaikie P, Cannon T, Davis I and Wisner B (2004) *At risk: Natural hazards, people's vulnerability and disasters*, Routledge, London

- Carter I (2002) *Preparing for disaster*, PILLARS Guide, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Carter I (2003) *Mobilising the community*, PILLARS Guide, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Carter I (2004) *Mobilising the church*, PILLARS Guide, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Clarke S, Blackman R and Carter I (2004) *Facilitation skills workbook*, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- *Code of Conduct for The International Red Cross and Red Crescent Movement and NGOs in disaster relief* http://www.ifrc.org/publicat/conduct/index.asp

- Gordon G (2002) ROOTS 1–2: *Advocacy toolkit*, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Heijmans A and Victoria L (2001) *Citizenry-based and development-oriented disaster response*, Centre for Disaster Preparedness, Quezon City, Philippines

- IFRC (1999) *Vulnerability and capacity assessment* , International Federation of Red Cross and Red Crescent Societies

- ProVention Consortium website – links to electronic copies of resource materials from organisations around the world about conducting various types of disaster-related assessments www.proventionconsortium.org/toolkit.htm

- Stephenson P with Gourley S and Miles G (2004) ROOTS 7: *Child participation*, Tearfund UK. Order from roots@tearfund.org or download from www.tearfund.org/tilz

- Tearfund UK *Community-based disaster risk reduction in the Indian state of Bihar: A case study* (2004) http://tilz.tearfund.org/Topics/Disaster+Management

■ Tearfund UK (2004) *Development and risk reduction in the Indian state of Andhra Pradesh: A case study* http://tilz.tearfund.org/Topics/Disaster+Management

■ Venton C and Venton P (2004) *Disaster preparedness programmes in India: A cost benefit analysis,* ODI Network Paper 49

■ Von Kotze A and Holloway A (1996) *Reducing risk: participatory learning activities for disaster mitigation in Southern Africa,* IFRC, Natal

Glossary

This glossary explains the meaning of certain words according to the way they are used in this book.

allies   people or organisations who can provide help and support

asset   something that can be used to improve well-being

capacity   ability to do something, particularly the ability to anticipate, resist or recover from hazards

caste   social class determined by birth

collaboration   when two or more people or groups work together to achieve something

confrontation   when two or more people or groups meet face-to-face to discuss an issue, often in an aggressive way

cyclone   a violent tropical storm with very strong winds and heavy rain (Southeast Asia). See also *typhoon* and *hurricane*

disaster   when a hazard impacts on a vulnerable community, causing damage to life, property and livelihoods

dis-empower   where a person or group is made less able to determine their own values and priorities or made less confident of their own abilities

drought   a long period with little or no rainfall

energiser   an activity or game which restores energy to a group

eviction   when people are forced to move out of their home

fatalistic   a feeling that people are powerless to change their future

focus group   a small group of people who meet to discuss a particular topic

frost   crystals of frozen water which cover the ground and cold objects, when the temperature is near freezing point

governance   the process of governing a country or local area

hail   small balls of ice that fall like rain

hazard   a natural or man-made event or situation which could lead to danger, loss or injury

hurricane	a violent tropical storm with very strong winds and heavy rain (Atlantic Ocean and Caribbean Sea). See also *cyclone* and *typhoon*
ice-breaker	an activity or game which is used to introduce group members to each other and to help them to feel comfortable in the group
infrastructure	systems, services or facilities necessary for economic activity, such as power, water supply, roads and public transport
mainstream	to consider an issue in all activities and let it influence the way things are done
mitigation	measures taken before a hazard happens, in order to reduce the negative impact of that hazard
NGO	non-governmental organisation
open-ended question	a question that encourages the respondent to provide information. The answer cannot simply be 'yes' or 'no'
participatory	describes a situation where many people are taking part
participatory tools	activities which enable people to express and analyse the realities of their daily lives
prejudice	having a negative attitude towards someone or a group of people because of lack of knowledge or stereotypes
preparedness	the state of being prepared. Disaster preparedness relates to activities carried out before a hazard event, which increase people's ability to predict, prepare for and respond to the effects of the hazard
pressures	people and processes that cause vulnerability
schedule	an outline of activities that will be carried out at specific times
stakeholder	a person or group with an interest in, or concern for, something
trend	changes which occur over time
trespass	to go onto someone's land or enter their property illegally or without permission
tsunami	a large ocean wave caused by an earthquake under the water
typhoon	a violent tropical storm with very strong winds and heavy rain (China seas and west Pacific). See also *cyclone* and *hurricane*
vulnerability	a condition, or set of conditions, which reduces people's ability to anticipate, resist, or recover from, the impact of a hazard

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