FOR A SAFER LIFE IN OUR COMMUNITIES

DISASTER RISK REDUCTION IN SOUTHEAST EUROPE

CARITAS ROMANIA CONFEDERATION

Acknowledgements

Many people contributed to the realization of this book and participated in the projects described:

Coordinators of the Caritas teams:
József Bányász, Ioana Bucioaca, Mihaela Condac, Mihai Doboş, Ioana Drăghiţă, Nora Dubyk, Adela Ghiţulescu, Iuliana Polhac, Radislav Stoianovici, Dănilă Szabo, Alexandru Szekely, Ovidiu Todor (Romania)
Enkelejda Qama (Albania), Angel Gyorev (Bulgaria), Orhan Miftari (Kosovo), Miroljub Nikolic, Tibor Halmai (Serbia)

Trainers and experts
Bernhard Heeb, Andrew Adam-Bradford, Peter Staudacher, Andrea Zauner, Harald Happel, Matthias Schmidt-Eule

Copy editing
Madeleine Pelletier

Design
Maria Crângaşu

And of course we want to thank all the people and the local authorities from the communities, who participated in the described DRR projects.

Authors: Thomas Hackl, Ioana Maria Găvrilaş

The publication of this document was supported by:
Caritas France
Caritas Germany
Caritas Spain

FOR A SAFER LIFE IN OUR COMMUNITIES

DISASTER RISK REDUCTION IN SOUTHEAST EUROPE

AUTHORS: THOMAS HACKL, IOANA MARIA GĂVRILAŞ

CONTENTS

INTRODUCTION

Responding to disasters and providing humanitarian aid are important fields of activity for Caritas organizations, not only in SE Europe, but all over the world. Natural disasters have a long history in this part of the world, frequently affecting almost all of the countries in the region.

In the 1990s various parts of the region were experiencing armed conflicts, wars and refugee crises. The international Caritas network responded to this situation with a broad range of programs for humanitarian aid and reconstruction. In the same period, national Caritas organizations were founded in every country in SE Europe (except Greece and Turkey, where these organizations had already existed for a long time). Responding to disasters soon became one of the principal activities of these Caritas organizations.

When disasters (especially floods) occurred again and again discussions started, especially in Caritas Romania, about developing projects in the area of disaster prevention and preparedness. In 2007, Caritas Romania started to implement pilot projects and gained its first experiences in the area of disaster risk reduction. The emergency team from Caritas Romania participated in several training sessions held by international trainers and started to adapt methods of community based disaster risk reduction, which had been developed in other parts of the world, to the realities of Southeastern Europe.

In 2008, following an initiative by Caritas Germany, Caritas organizations from 8 Southeastern European countries met for the first time in Belgrade to discuss collaborating in the area of humanitarian aid, and the South Eastern Europe Caritas Emergency Group (SEECEG) was founded. Since then the group has met every year to share experiences, learn about developments in the area of humanitarian aid and to discuss further possibilities for collaboration.

During the second meeting of the group in 2009, the idea to develop and implement a common project was born. In the end, five national Caritas organizations agreed to join the project, which was funded by Caritas France (Secours Catholique), Caritas Germany and Caritas Spain.

The implementation of the project started in November 2010 and ended with a final meeting in May 2012. The project had two main components: capacity building in order to develop the knowledge and skills of the participating organizations in the area of disaster risk reduction, and the implementation of pilot projects in disaster-prone communities in the participating countries.
The project was coordinated by Caritas Romania, which also organized a regional resource center offering training programs and support for all participating organizations.

The capacity building component included two training sessions for the project teams from all participating countries. During the first session the participants got to know the basics of disaster risk reduction and community work. The training also included practical methods which could be applied directly in the pilot projects. The first training sessions concluded with the development of a concrete work plan for every project community.
In the second training session, which took place about five months after the first, the results of the first phase of the pilot projects were analyzed. The participants did exercises on how to move from problem analysis to an action plan and learned concrete methods of disaster prevention, mitigation and preparedness.

Aside from the training sessions, the capacity building component included consultancy work by the team from the resource center, support and monitoring visits of the team from the resource center and the publication of written materials and tools for project implementation.

The second component of the project comprised a pilot project in one disaster prone community in each participating country (two in Serbia).

In these communities, all of the essential steps of a community based disaster risk reduction project were implemented:

forming and training a group of volunteers, risk assessment and analysis, and planning and implementation of concrete actions to reduce the risk of disaster.

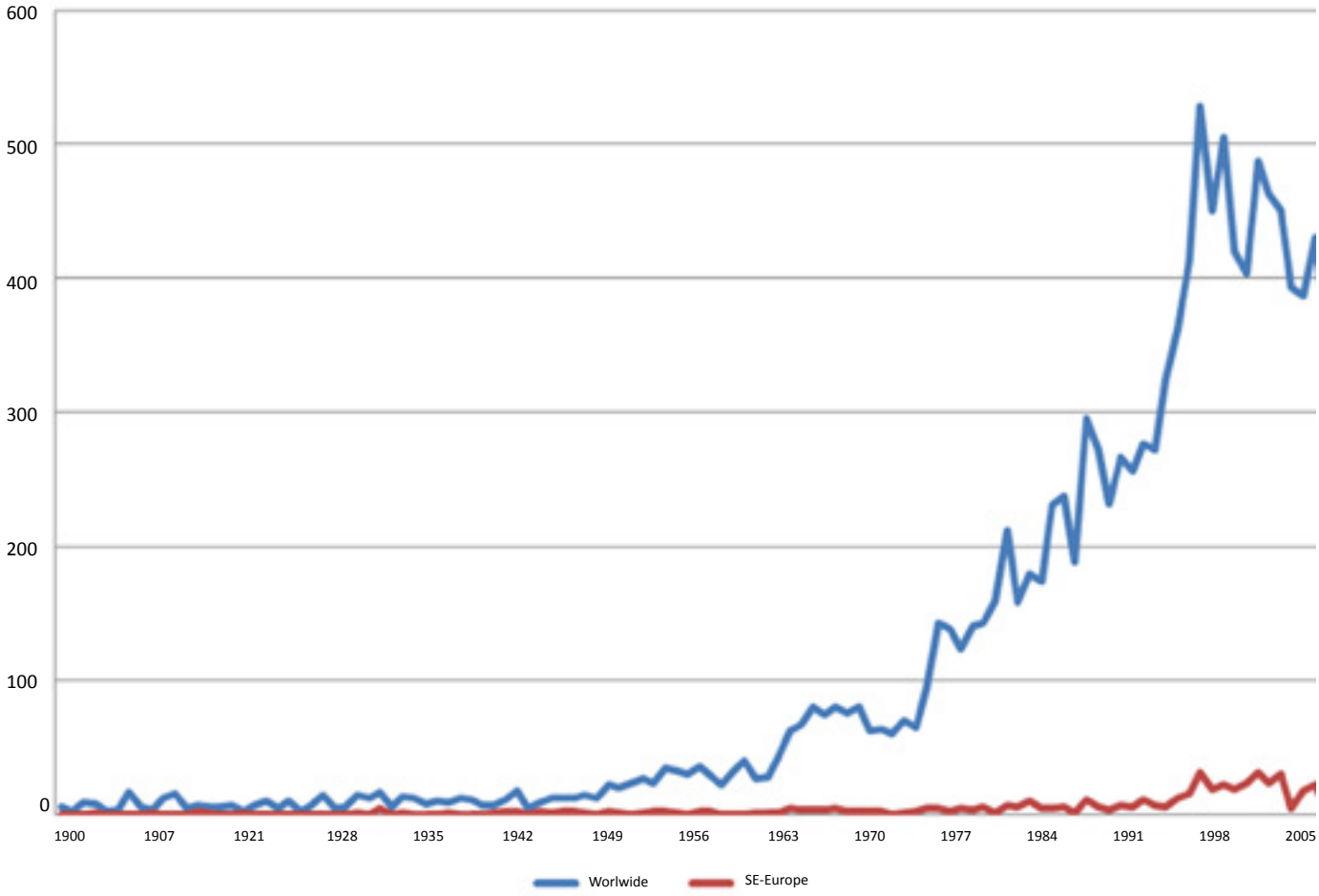
This publication is based mainly on the experiences of the regional disaster risk reduction project, implemented by the five member organizations of the SEECEG group, but also on previous projects in Romania. The theoretical part reflects the training sessions and some of the materials provided for the participants. The descriptions of practical project activities also presents programs implemented in the pilot projects, as well as some examples from earlier disaster risk reduction programs in Romania.

1 INTRODUCTION IN DISASTER RISK REDUCTION

INTRODUCTION IN DISASTER RISK REDUCTION

Natural disasters affect almost every part of the world and cause enormous losses of human life, suffering and economic damages. Statistics show that there has been a substantial increase in the number of disasters affecting mankind during the last 100 years.

Number of natural disasters



Source: EM-DAT: The OFDA/CRED International Disaster Database, www.emdat.be - Université Catholique de Louvain - Brussels - Belgium

Even if part of this increase can be explained by better information systems, the changes are still significant. The same developments can also be observed in the region of Southeastern Europe, which faces a high risk for natural disasters. Serious disasters affect countries in the region almost every year. Statistics from the last decades show that in Southeastern Europe natural disasters are becoming more frequent and the number of victims and the amount of economic loss is growing. Climate change is one of the most important reasons for these developments.

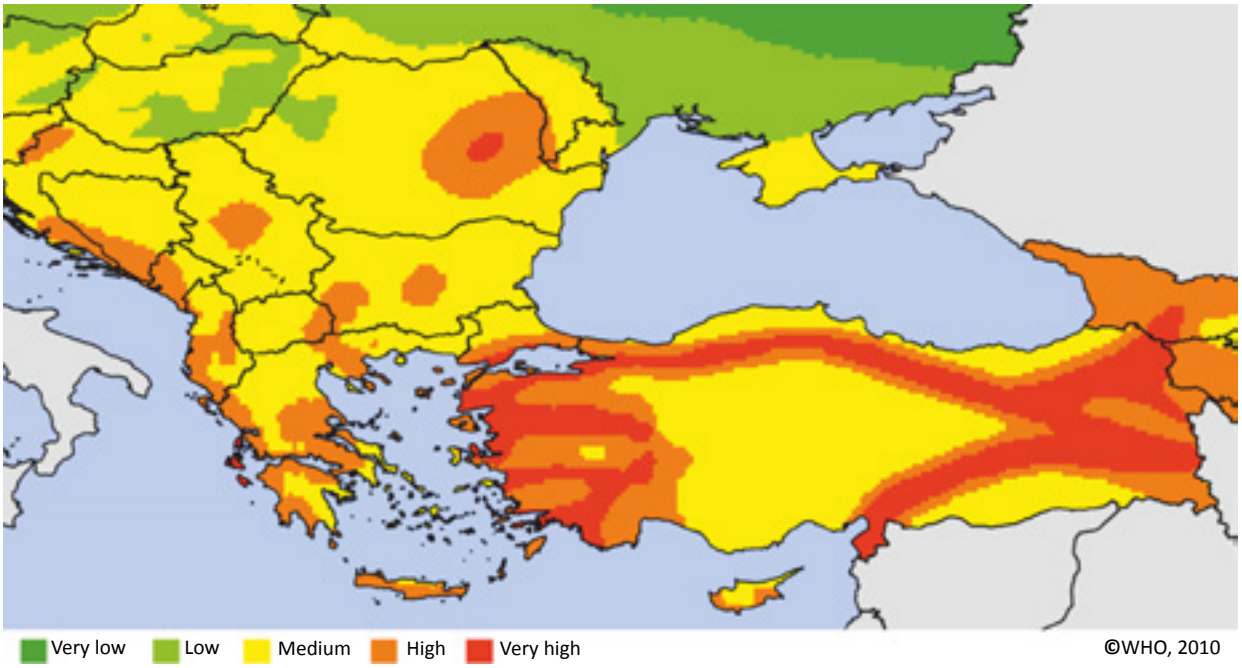
DISASTER RISK REDUCTION

The most frequent events in the region are connected to hydro-meteorological hazards: floods affect almost every country in the region (depending on the country averaging between once a year and every four years). There are also frequent droughts, cold waves and wild fires.

Flood hazard distribution map

Earthquakes represent another important hazard, since there are several active seismic regions in SE Europe. Strong earthquakes do not happen as often as floods, but their consequences may be even more disastrous. There have been major earthquakes (more than 500 deaths) in Macedonia in 1963, in Romania in 1977 and in Turkey (1976, 1983, 1999, 2011).

Seismic hazard distribution map



Examples of disasters in SE-Europe:

Danube floods in Romania - Spring 2006

Warm weather in the Alps caused large quantities of snow to melt. The Danube reached historically high levels, causing floods in Hungary, Serbia, Bulgaria and Romania. The worst situation was in Romania, where dykes in three areas broke or were just too low to offer protection. Entire villages were flooded. 16,000 people had to be evacuated and were forced to stay in tent-camps or other temporary shelters for weeks. More than 3,000 houses were completely destroyed.

Forest fires in Greece - August 2007

After a period of extreme heat and wind, forest fires broke out in several parts of Greece. Some of the fires had natural causes, other were caused by humans.

This lasted for more than a week until the largest fires could be extinguished by firefighters from several European countries. 84 people died in the fires, more than 2,000 buildings were destroyed and 2,700 km2 of land were burned.

Floods in Northern Albania - December 2010

At the end of 2010, heavy rainfalls and melting snow in the mountains caused serious floods in several parts of Northern Albania. The situation was aggravated by the situation of three hydro-electric powerplants, which - for security reasons - had to discharge large quantities of water into the river Drin.

Large areas in the region of Fushe-Kruje and Shkodra were flooded. 15,000 people had to be evacuated, 2,440 houses were flooded and 13,150 hectares of agricultural land were damaged.

Earthquake - Turkey 2011

In October and November 2011 the region of Van in Eastern Turkey was affected by two consecutive earthquakes. More than 2,000 buildings collapsed, killing 644 people. 4,182 people were injured.

Extreme winter conditions 2012

The whole region of Southeastern Europe (as well as many other regions in Europe) was affected by extreme weather conditions in January and February 2012.

Periods with very low temperatures (below -25C) alternated with heavy snowfall and strong winds.

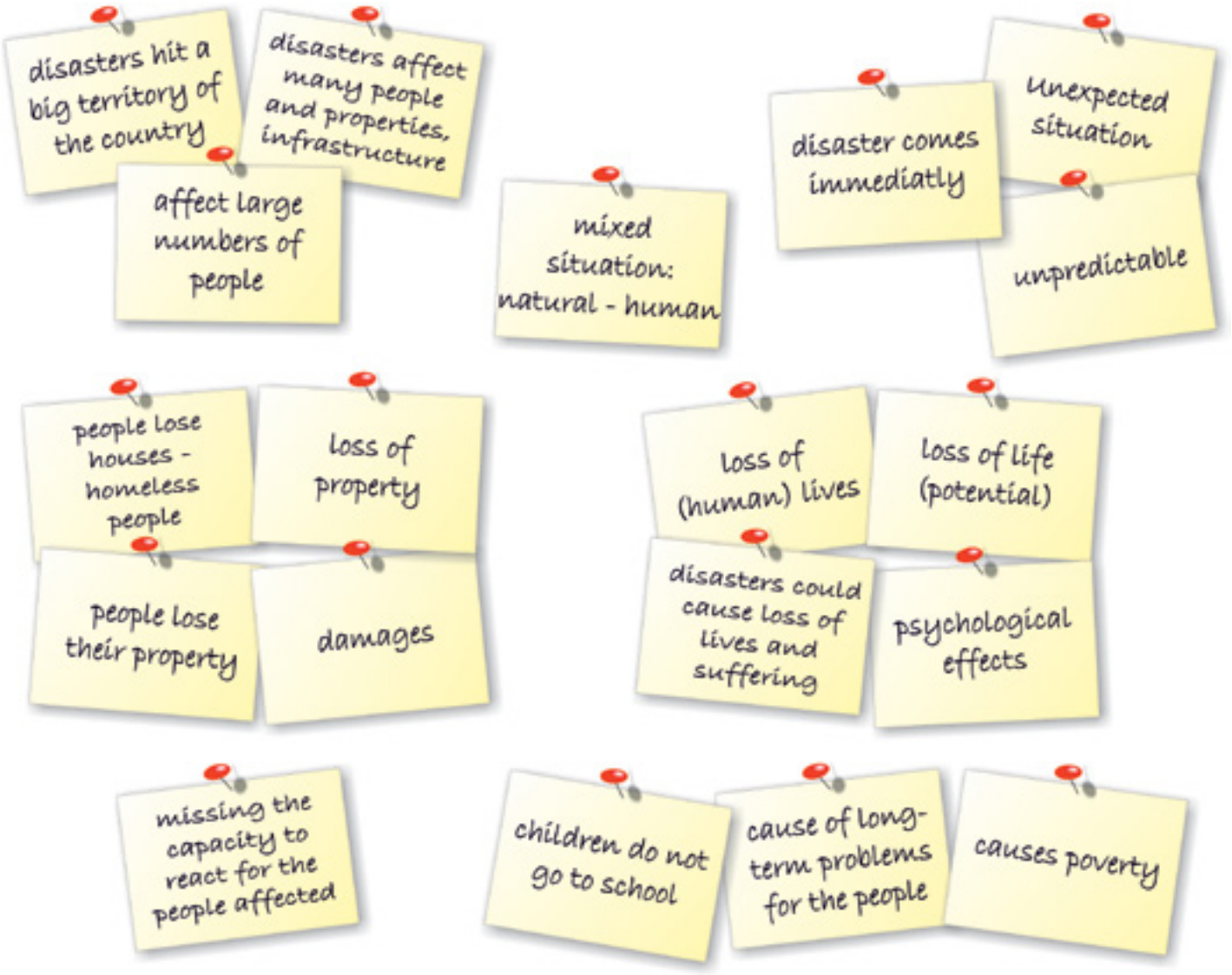
Throughout the region roads were blocked, villages and even towns were isolated and, in some countries, there were power outages. Among the most affected were homeless people in the cities. More than 600 people died as a direct result of the low temperatures.

WHAT IS A DISASTER?

People working in humanitarian agencies frequently deal with disasters and their effects. They know how people are affected by disasters and what has to be done to improve their situation. Nevertheless, even for them it may be difficult to give a clear definition of a disaster. Of course the situation is very clear in cases of major disasters like the tsunami in the Indian Ocean or the Haiti earthquake. But with smaller events, it is not so easy to decide if it is a disaster which justifies and asks for a response by a humanitarian agency or if it is just a local event or accident.

Praxis Example: Training exercise: What is a disaster?

During the first workshop of the regional DRR project, the participants participated in a small group exercise (3-4 persons) to identify the most important characteristics of disasters. The results have been summarized and put in order on a flip-chart:



I DISASTER RISK REDUCTION

Summarizing the aspects mentioned by the participants, a disaster has the following characteristics:

- Disasters affect a large group of people and/or communities.
- The event causes human suffering and despair.
- There are massive material damages and losses.
- There are significant damages to the natural environment.

It is almost impossible to give a clear and objective criteria (like "more than xx persons affected") to define when an event becomes a disaster. But, generally speaking, it can be stated that a disaster is a situation that cannot be overcome using only the locally existing resources and daily relief activities. It´s actually the vulnerability of a community, which may be low or high, which causes a natural event ("hazard") to become a disaster.

Definition:

*A **disaster** is the exposure of a vulnerable group of people to a hazard, leading to a serious disruption to the functioning of society and causing human, material, economic or environmental losses which exceed the ability of the affected community or society tocope with. A disaster results from a combination of hazards and vulnerability that exceeds the capacity of a society to reduce the potential negative consequences of risk.*

To understand what a disaster is, we have to understand the following three terms:

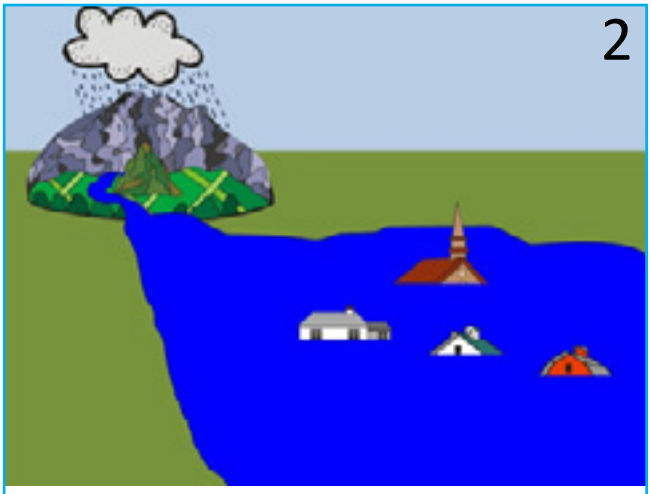
A hazard is an extreme event, natural or man-made, with a destructive potential for social, economic and human assets. These may include future threats, and may be "natural" (geological, hydro-meteorological and biological) or "man-made" (conflict, environmental degradation and technological hazards). From the perspective of the community, the hazard cannot be influenced.
Examples: an earthquake, strong rainfalls causing river-levels to rise, an accident at a nuclear power plant

Vulnerability is the conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of a community to the impact of hazards.
Vulnerability determines if, and to what extent, a community will be affected by a hazard. A village may be vulnerable to floods due to its location on the floodplains. Weak constructions are vulnerable to earthquakes. Poor and less educated communities are vulnerable to all kinds of hazards since they do not have the knowledge and means to protect themselves and to recover after being affected.
We can speak of a disaster if both of the above conditions are present. A disaster without vulnerability is not possible. There may be a strong earthquake in the middle of Antarctica. As long as no people are living there and no other human assets are affected, it may be a terrible natural event, but it is not a disaster.

Capacity is the combination of all the strengths and resources available within a community, society or organization that can be used to reduce the effects of a disaster. Capacity may include physical, institutional, social, economic or human capital. Capacity and vulnerability can usefully be considered as part of the same continuum, since one increases as the other decreases.

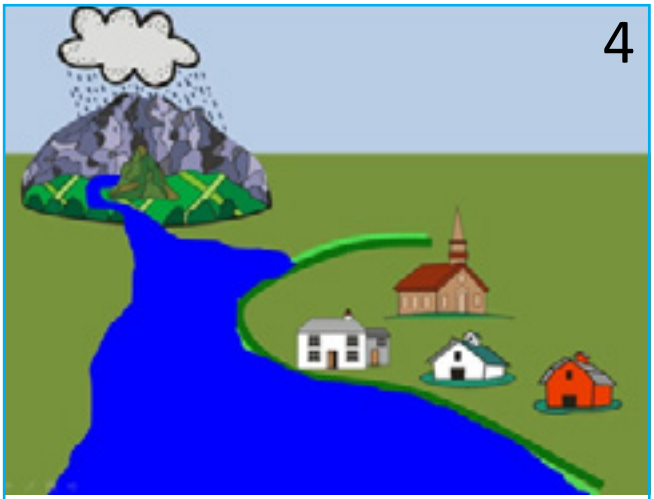
The following examples will illustrate the meaning of hazard, vulnerability and capacity:

This picture shows a village close to a river. The river has its origin not far away in the mountains. At the moment the sun is shining and the village looks quite safe. The water-level of the river is quite low.



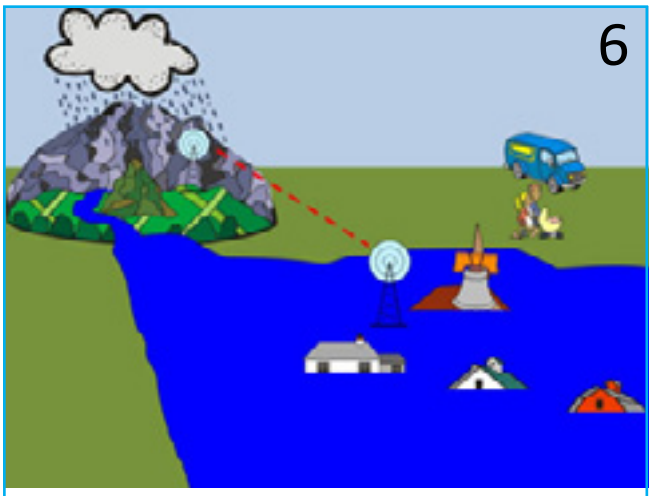
The risk of floods exists constantly. This picture shows what can happen. Strong rainfalls in the mountains (= the hazard, this cannot be influenced at all) will make the river rise and the water will reach the village, surprising and maybe even killing people, destroying property and interrupting the normal life of the community. People living in this village are vulnerable to floods, they are not protected and not even warned.

In this picture the village has a new capacity - or let´s say the village has reduced its vulnerability. A dyke protects the village from the risk of being flooded. It is important to see that the dyke has already reduced the risk of floods, but it did not abolish the risk totally. Dykes may break, the water may be higher than the dyke or the dyke may contribute to even worse floods down the river.



This time the village is saved. The hazard is unchanged, there is strong rainfall in the mountains and the water level in the river has risen, but the village on the other side of the dyke is protected. There are no damages and people are not affected by the floods.

Dykes are not the only way to reduce vulnerability. They may have negative side-effects and they are incredibly expensive. This time our village has reduced its vulnerability in another way. An early warning system has been installed and the population has been instructed about what to do in the case of a warning.



Again the same hazard - strong rainfalls in the mountains. Immediately the message that there is a chance of floods is transmitted from the mountains to the village. The bells of the church ring. Everybody in the village knows that this means danger and it is time to leave. People take their most important belongings (money, documents) and put valuable things in higher places.
Everybody is in a safe place when the water reaches the village. There are damages, but nobody is injured or killed.

Disasters are commonly seen as singular events, striking a community or a region at a specific moment in time. Some of them occur suddenly and without any warning (like an earthquake), while others can be predicted (minutes in the case of flash floods or tsunamis, hours and even days in other cases, like river floods). Some types of disasters have an even longer onset (for example droughts).

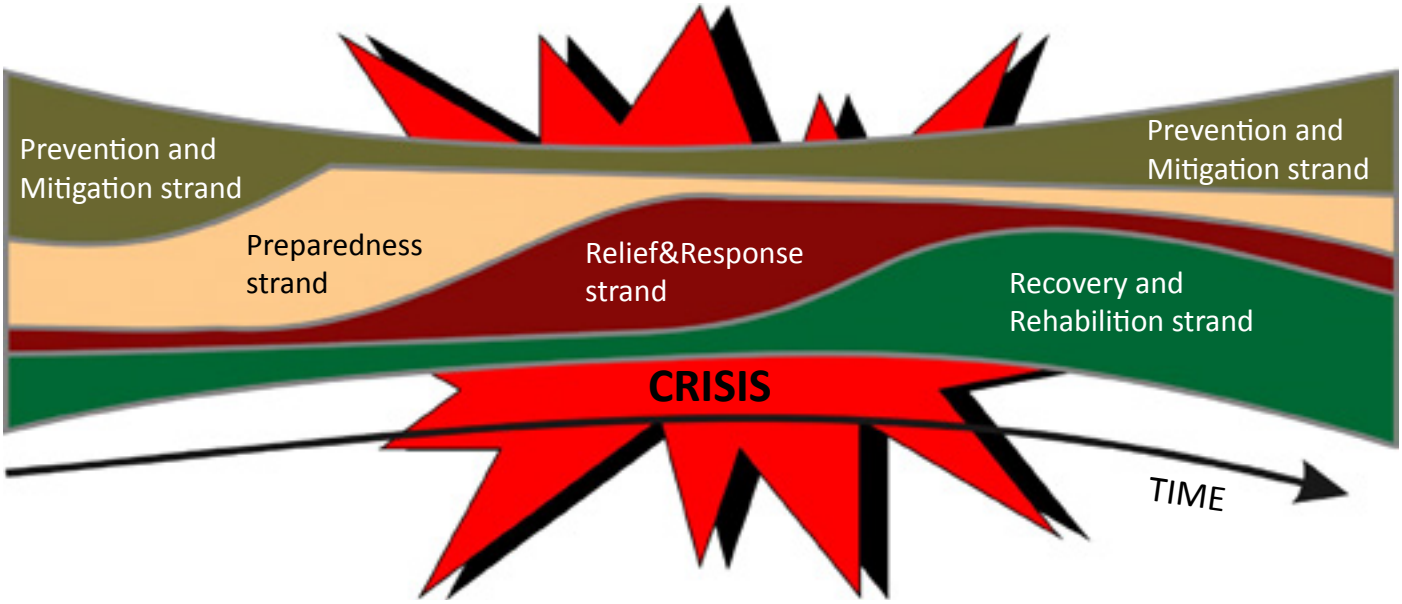
When working in disaster relief and humanitarian aid, the focus is not only on the disaster itself. There is a period before and after the disaster when something can be done, and together they form a kind of cycle with repeating moments.

The disaster itself is followed immediately by the humanitarian intervention, with the main purpose being to help people to survive the disasters and the difficult moments after the disaster. Interventions focus on the satisfaction of basic needs (water and sanitation, food, shelter, health care).

During the period of rehabilitation and reconstruction, people and communities affected by the disasters try to find their way back to normal life and the further development of the community. In an ideal case, the community uses the period after recovery for measures to reduce the risk of disasters in the future.

When disaster strikes again (many disasters repeat periodically), it will depend on these measures of disaster prevention, mitigation and preparedness, to determine to what extent the community will be affected again.

Actually looking into the course of events after a disaster, things are not happening in a strict chronological order, but rather simultaneously. Relief and response activities do not stop at once when rehabilitation starts. The following figure gives a more realistic picture of the different phases of prevention, mitigation, preparedness, relief and response, recovery and rehabilitation.



Source: Astrid Von Kotze and Ailsa Holloway. Reducing risk: participatory learning activities for disaster mitigation in Southern Africa, 1996

After analysing these aspects of chronology and the different phases of disasters, we are now coming back to the definition given for a disaster: A disaster results from the combination of hazard and vulnerability.

In reality, vulnerability and hazard create a permanent condition, which affects the life of a community, even in periods, when no disaster occurs. Communities and their members are caught between the hazards and their own vulnerabilities.

It only requires a trigger event to cause a disaster to unfold and have a direct impact on the community. This is also the reason why there is no such thing as a “natural” disaster, there is only a natural hazard.

Nature may be an important aspect when it comes to a disaster, but nevertheless, it is the human vulnerability that makes a hazard become a disaster.

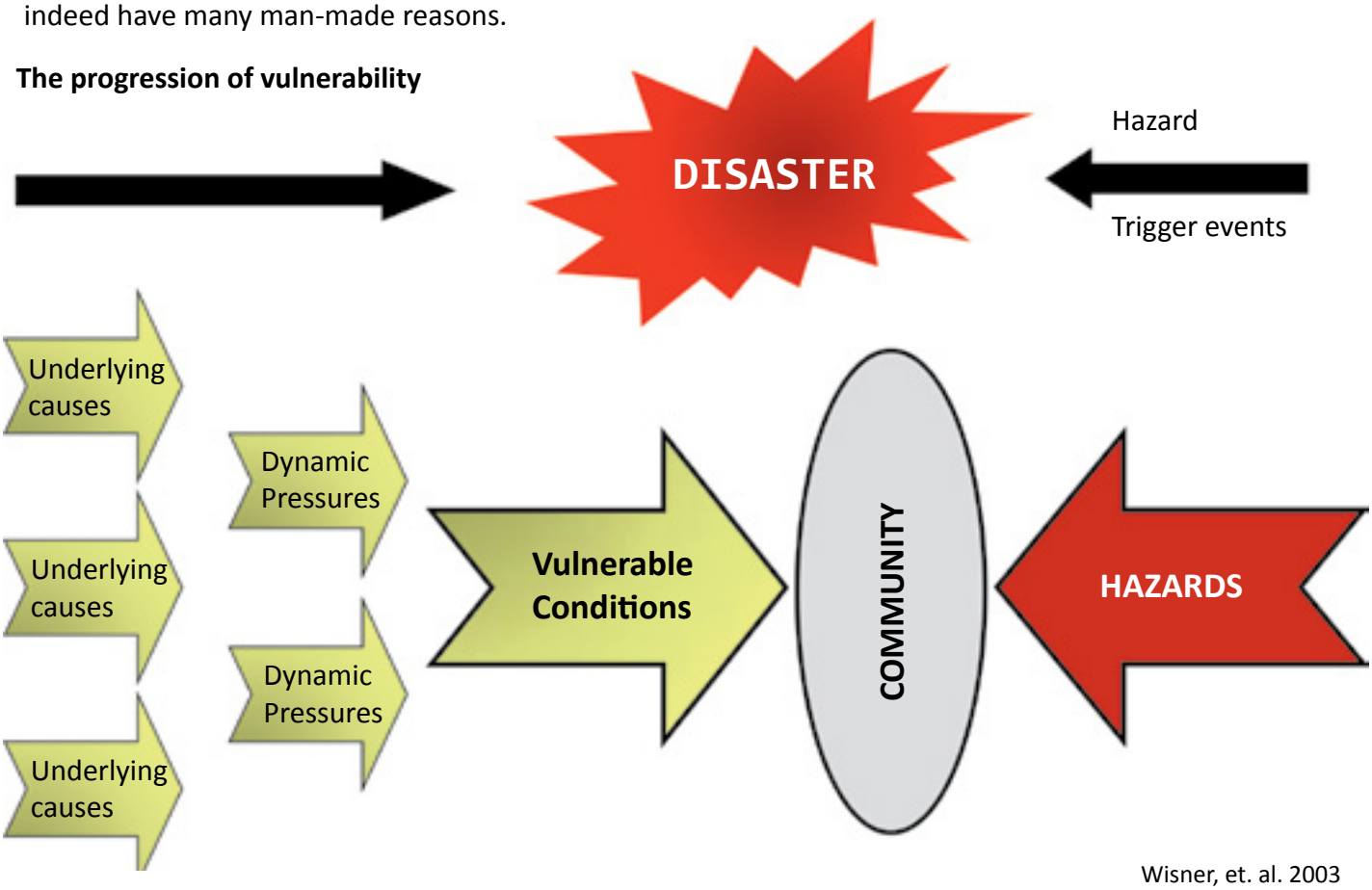
The meaning of "Disaster Risk" can be exemplified with a simple formula:

$$\text{Disaster Risk} = \frac{\text{Hazard x Vulnerability}}{\text{Capacity}}$$

"At Risk: Natural Hazards, People's Vulnerability and Disasters (Wisner, et. al. 2003)"

The "Disaster Crunch Model" presented in the book "At Risk: Natural Hazards, People´s Vulnerability and Disasters" puts an emphasis on the aspects of vulnerability, showing that so called "natural" disasters indeed have many man-made reasons.

The progression of vulnerability



Wisner, et. al. 2003

Disasters affect multiple aspects of communities and individuals: material properties, economic resources, natural resources, social relations and life itself. All these aspects are exposed to disasters due to their vulnerable conditions. Houses are vulnerable because they are built in an unsafe place (close to a river) or they are not constructed properly. People´s lives are in danger because they are not warned of an approaching flood in time and they do not know how to react. Stocks of food are destroyed, because there is no safe storage.

These vulnerable conditions can be found in every disaster-prone community, but even within a community, there may be important disparities: some houses are built in safer places, some people are better informed than others. There are families who have resources and the capacity to leave the place in time in case of a flood, while others are just left behind.

This already shows that vulnerable conditions are closely connected to social, political and economic processes and structures, which put "dynamic pressures" on communities and their members. At first glance it might seem that a natural disaster affects everybody to the same extent, but it´s often the poor and less educated who are the most affected because they are the most vulnerable. Economic pressures may force families to live on cheaper land located on the floodplain.

Women may have difficulties in accessing education. Minorities may be excluded from community resources. Lack of knowledge and resources may lead to the construction of buildings which are not safe in case of earthquakes or floods.

"Dynamic pressures" explain what, who and in which way vulnerable conditions are created.

The reasons for these pressures can be found even deeper in "underlying causes" like culture and religion, economic systems and principles, political and ideological ideas. Looking from another perspective, these underlying causes exercise different pressures on the communities and their members.

And, in this way, vulnerable conditions are created which expose the community to the hazard. This analysis of the progression of vulnerabilities also shows how the situation of a community and its members can be improved and how the risk of disaster can be reduced: it is not about just removing the vulnerable conditions, but to release the pressures to which the community or at least a part of its members are exposed. This means, finally, addressing the underlying causes.

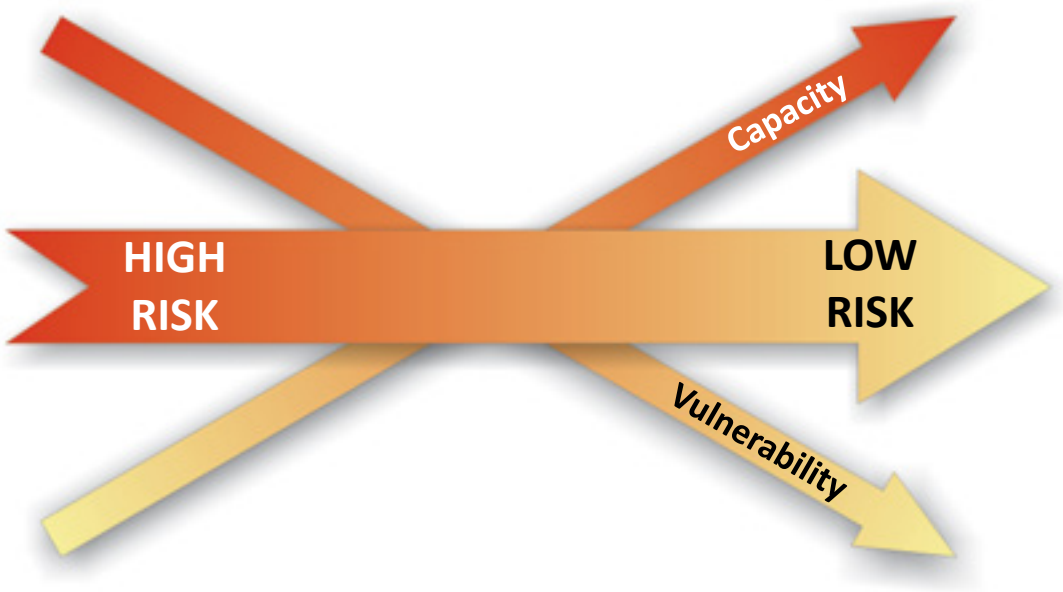
This is where we get to our subject - Disaster Risk Reduction. The United Nations Office for Disaster Risk Reduction gives the following definition:

Definition:

Disaster Risk Reduction (DRR) *is the conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broader context of sustainable development.*

So what has to be done is to reduce existing vulnerabilities (by addressing the dynamic pressures and underlying causes from the "Crunch"-Model) or, expressed in a positive way, to develop the capacities of individuals, families, communities and societies to prevent disasters and to withstand a disaster. The disaster risk can never be eliminated totally, but every measure contributing to reduced vulnerabilities and to developing capacities will lessen the risk and lead to a safer life for those involved.

DISASTER RISK REDUCTION



Disaster risk reduction involves the action and interaction of different players and levels. The underlying causes of many risks that people and communities are facing can often be solved on international and national levels. Big investments and technical solutions like flood defenses and sophisticated early warning systems can be implemented only by states or big organizations.

Nevertheless it is the local communities that are directly exposed to hazards and the people living in these communities who are suffering when disasters strike. Being most affected, communities also have a huge potential to take action and to reduce their vulnerabilities and to increase their capacities. This is the idea of community based disaster risk reduction.

The Hyogo Framework of Action

The Hyogo Framework for Action (HFA) is the key instrument for implementing disaster risk reduction, which has been adopted by the Member States of the United Nations. Its overarching goal is to build the resilience of nations and communities to disasters, by achieving substantive reduction of disaster losses by 2015 - in terms of lives, and in the social, economic, and environmental assets of communities and countries. The HFA offers five areas of priorities for action, guiding principles and practical means for achieving disaster resilience for vulnerable communities in the context of sustainable development.

The Hyogo Framework for Action was adopted by the World Conference on Disaster Reduction, which took place in January 2005 in Kobe, Japan.

The five priorities for Action, defined by the Hyogo Framework are:

1. Make Disaster Risk Reduction a Priority

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

2. Know the Risks and Take Action

Identify, assess, and monitor disaster risks - and enhance early warning.

3. Build Understanding and Awareness

Use knowledge, innovation, and education to build a culture of safety and resilience at all levels.

4. Reduce Risk

Reduce the underlying risk factors.

5. Be Prepared and Ready to Act

Strengthen disaster preparedness for effective response at all levels.

In order to achieve the goals of the Hyogo framework of action collaboration and cooperation are crucial to disaster risk reduction: states, regional organizations and institutions, and international organizations all have a role to play. Civil society, including volunteers and community-based organizations, the scientific community, the media, and the private sector, are all vital stakeholders.

2 FIRST STEPS IN COMMUNITY WORK

FIRST STEPS IN COMMUNITY WORK[1]

Community work is a broad area of activities aimed at contributing to the development of a community and to solving the problems that a community faces. Disaster risk is both a concrete problem a community may face and an obstacle to further development.

There are two reasons why the communities themselves should be the main actors in reducing the risk of disasters.

First of all, nobody can understand local opportunities or constraints better than the local communities themselves; and secondly, nobody is more interested in understanding local affairs than the community whose survival and well-being are at stake.

The objective of community work is for community members to organize themselves and to start being active on their own behalf.

Community development and community work is about:

- mobilizing people
- helping them advocate on their own behalf
- building relationships
- promoting co-operation
- networking
- teaching knowledge and skills
- opening up resources (internally and externally)

The members of the community are the subjects and the main actors in community work. Nevertheless, in most cases the process of community work needs external facilitation.

Before we begin to look more closely at the process of community work, it is necessary to define what exactly a community is.

Communities are groups of people who share something in common. When speaking about community work we often think of local communities, meaning the people who live within the same locale. This locale can be a whole village or just one neighborhood in a town.

A community can also be formed by a group of people who share the same social situation, for example people who are unemployed or elderly people who live alone. Another kind of community is a group of people who have the same concerns and interests, for example beekeepers, workers for the same company, or parents of children who attend the same school. Finally, people who share the same living circumstances may also form a community.

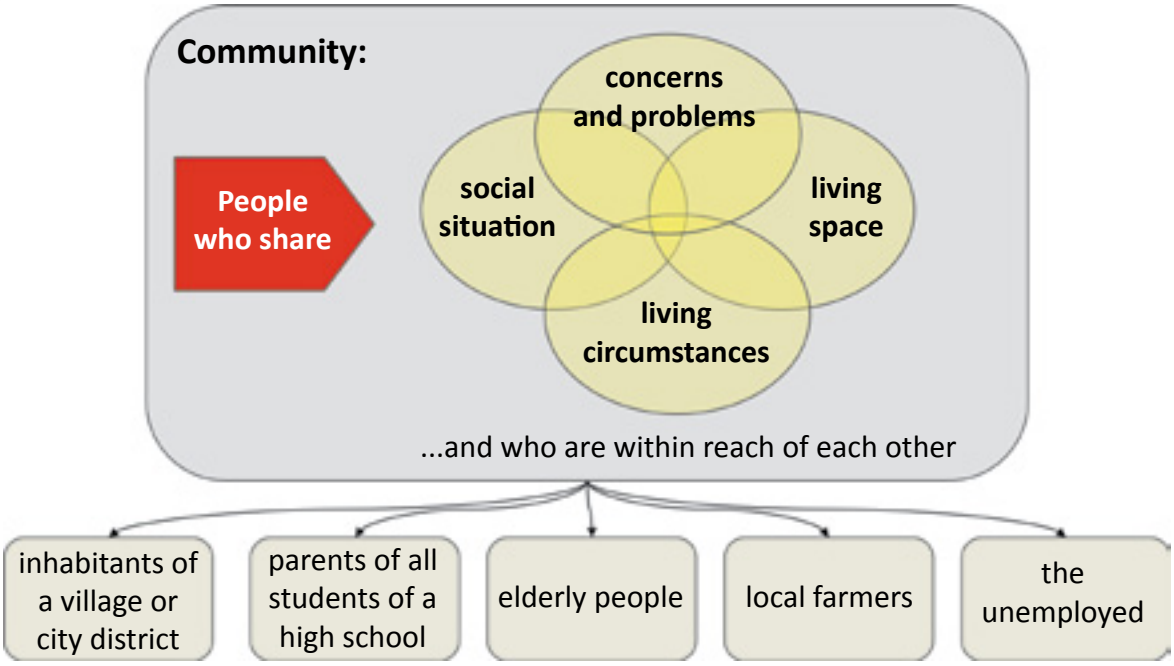
Besides having something in common, there is a second aspect which is necessary to form a community: people have to be within reach of each other. This means that they at least have the possibility of getting in contact with each other. In many cases this means that communities are limited to a certain geographic area (for example, beekeepers in the region of Southern Kosovo).

Only in recent years have new means of communication contributed to the creation of new kinds of "virtual" communities. But in terms of community based or managed disaster risk reduction, virtual communities seem to have little or no relevance at all.

Principle:

Don't do anything for people that they can do for themselves...
...but start helping them at exactly the point where they can not move ahead on their own.

[1] *Based on a training program, provided by Bernhard Heeb in 2007 for Caritas Romania.*



From the point of view of the facilitator, the process of community work comprises several steps:

1. Selecting a community
2. Entering the community and making the first contacts
3. Gathering information about the community
4. Forming a group of volunteers and collaborators
5. Assessing the situation, which includes the participation of groups of volunteers and collaborators
6. Analysing the findings from the assessment
7. Identifying the problems to be tackled (i.e. What exactly is the issue that we want to address and are able to solve?)
8. Setting the goal
9. Developing a strategy and an action plan
10. Mobilisation of resources
11. Action
12. Evaluation

The role of the project facilitator

In most cases, the person in charge of facilitating the implementation of the DRR project is an outsider to the project community. Most often it is an employee, or sometimes a volunteer, working for the organization. They only visit the project community regularly during the implementation period. This means that the facilitator knows the project, the methodology to be used and the steps to be taken - but he or she does not know the community, its problems and even less which solutions should be applied.

The project facilitator has some clear tasks:

- First of all, the role of the facilitator is to listen to the people from the community and try to understand the capacity of the community, and the concerns and problems of the community members.

- In the beginning of the project the facilitator builds up a network of local contacts and identifies possible local collaborators and volunteers for the project team.

- The facilitator brings knowledge about disaster risk reduction and methods of community work.

- The facilitator forms groups and offers training to the groups of volunteers.

- If necessary, the facilitator moderates group meetings.

- The facilitator proposes the main phases of the DRR-process and supports the group during the planning process.

- The facilitator acts as a consultant for the local team and collaborators.

- If necessary, the facilitator supports the local team in connecting with the local authorities and other local stakeholders.

- The facilitator helps the team gain access to information and contacts outside the community. This includes the identification of sources of information (for example authorities, libraries, universities, specialists) and also support in contacting these institutions or people. Sometimes the facilitator will take on the role of interpreter, helping the members of the local team to understand the information received from specialists or other sources.

The facilitator has to find the right balance between moving the process of the DRR project forward and allowing the local project team to feel ownership of the project. The facilitator does not take over and do the work in place of the community members (even if this sometimes seems to be the fastest and easiest solution), nor does the facilitator offer up solutions or ready-made answers for all the problems.

There are several important qualities that a good project facilitator should have:

- The facilitator has to have enough time to spend in the community. Without this time he will not get to know the community and will not be able to build a relationship of trust with the members of the local project team.

- The facilitator has to have at least some basic knowledge of disaster risk reduction and the methods used in community work.

- However, it is not necessary for the facilitator to be a technical specialist in engineering or natural sciences.

- The facilitator needs good communication and leadership skills. Their success at gathering volunteers and maintaining the motivation of the team until the end of the project is dependent on these skills.

Selection of a community

The selection of the right community is essential for a successful community based DRR project. If you fail to find a proper community, people will not be motivated to get involved in the project and you may even meet resistance which makes it impossible to continue the project. There are several points that should be considered when selecting a community. In order to analyse if a community is appropriate for the implementation of a DRR project, some information about the local situation is absolutely necessary.

This includes statistical data about the population (number of inhabitants, age structure, religious and ethnic groups, etc.), information about the economic situation of the community, the cultural background, and disaster risks existing in the area. Sources of information are official statistics, reports from other organizations, articles and other publications and reports about disaster risks in the country. Most of this information can be found on the internet.

When analysing a possible project community, the following points should be considered:

(a) *The existence of a substantial disaster risk:* Only those communities, who are living at risk of being affected by a disaster and who (or at least some of whose members) are aware of that risk, are ready to participate and to get involved in a DRR project. In many cases, this awareness exists in communities that had been affected by disasters in recent history.

On the other hand, for example in the case of earthquakes, the occurrence rates are much lower than with more frequent disasters like floods or landslides. In these cases awareness has yet to be created so that people are willing to actively participate in a DRR project. This could be a hard job to accomplish.

(b) *Existing contacts between the organization and the community:* If the organization has already been active in the community or is even running programs in the community, it will be much easier to collaborate with the community and its representatives - this is, of course, only if the organization has a positive image in the community.

If the community has been affected by a disaster in the recent past and your organization implemented relief programs after that disaster, this could be a very beneficial situation in which to start a DRR-project.

Praxis example: Busenje and Jasa Tomic, Serbia

When the villages of Jaša Tomić and Busenje were flooded in spring 2005, the diocesan Caritas Zrenjanin was the principal NGO who responded to the situation. Caritas distributed relief items to the affected population and offered programs like psychosocial support.

When the team from Caritas returned to the villages in 2011, now to implement a DRR project, the organization was immediately welcomed back into the community. Local administration organized a meeting, former collaborators declared their willingness to join the project group as volunteers and the school also opened its doors for activities.

(c) *The role of the organization within the community and possible conflicts:* Societies and communities in Southeastern Europe are not homogeneous. There are different ethnic, religious and social groups and relationships between these groups are sometimes characterized by conflicts and even violence, as recent history has shown.

An organization starting a DRR project is not just a neutral outsider, but is often seen as belonging to one side or another. This is especially true for Caritas, being an organization of the Catholic Church (even though Caritas offers its programs and services to everyone, without discrimination). Before selecting a community, conflicts within the community, as well as possible conflicts between different stakeholders and your organization, should be analysed.

(d) *Readiness of the community to participate in a community-based program:* Starting a community-based program implies a certain level of organization within the community.

This means some formal or informal structures and leaders, who represent the community and who are ready to take the lead in a project.

This is not only about local administrative structures, but about groups and people who are respected and accepted by the other community members.

Praxis example: Ocna Mures, Romania

The little town of Ocna Mures was selected by the Greek Catholic Caritas organization from Blaj to implement a DRR project. Parts of the city had been affected by floods the previous year.

The Greek-Catholic community of Ocna Mures is rather small, representing less than 10% of the population (a large majority of whom are Orthodox). Relations between those two religious communities are quite tense in the city (as in many other parts of Romania). When Caritas started working in Ocna Mures, the Greek Catholic priest was the only contact person they had in the city. He proposed to form a group of volunteers from members of his parish. Problems started when the project coordinator from Caritas tried to organize the first meeting of the group. The meeting was postponed again and again and soon it became obvious that the people who had been proposed to join the group were not really interested in the issue.

One explanation might be that none of them lived in the area prone to floods. In addition, people living in the risk area, even if interested in the issue, did not join the group since it had been organized by the Greek Catholic parish.

In this situation, no group of (adult) volunteers could be established. Only when the Caritas coordinator looked for other contacts within the local community (a teacher in the school, the civil protection officer of the local administration), were they able to achieve some of the project objectives, but there was no broader involvement of the local community until the end of the project.

Getting in contact with a community

Your first contact with the community and its representatives may be critical to the success of the project. Often it is the first impression that counts. To be able to do the right thing in the first moments of the project, it is important that you know and respect the local culture. In a case where you have already worked in the community or you already have a good contact it will be much easier to find the people you need to work with. In any case, it is essential to identify all important stakeholders in the community and to present the project to several people.

Those people may be:

● Religious leaders in the community, for example parish priests. In case of mixed communities with different religious groups it is important to include all groups in the project. So getting in contact with just one religious leader (for example the Catholic priest) may become an obstacle to the implementation of the project.

● Local authorities, especially the mayor of the village: Local authorities are the "official" (in most cases elected) representatives of the community. This position, which includes the power to make decisions and have access to information, make the local authorities important partners in the implementation of the project. On the other hand, authorities often do not represent the interests of their community. People expect the authorities to solve their problems, but at the same time they do not trust them very much. In conclusion, it is important to get in contact with local authorities, but they should not be your only contact in the community.

● Teachers and directors of local schools: Schools can be important partners in the implementation of DRR projects. Teachers can act as volunteers in the local project group and they can motivate their pupils to participate in the project.

● Other informal leaders: Every community has different structures. It is important to identify those people who have influence in the community and who can either be direct collaborators in the project or can motivate others to get involved.

When you present the project for the first time to those you have identified as important stakeholders, you should keep several objectives in mind:

● *The people you are talking to should understand both the project and your intentions. It is important to identify and eliminate wrong and unrealistic expectations from the start.*
● *The representatives of the community should be motivated to get involved in the project.*
● *You should get support to identify and motivate volunteers for your project group.*
● *You should get additional information about the community.*

When having the first discussions with a community you should be very well prepared. Have a short, but well structured presentation of the project ready. You will have to explain, who you are, what your objectives are and why it is good for the community to participate in the project. Be as concrete as possible. In some situations it might be useful to have written materials with you.

It is possible that you will have several discussions with different people in this first phase of the project. At the end of these project presentations you should have a list of people who are willing to get involved in the project and who will be members of your volunteer group or groups.

Praxis example: Prnjavor, Serbia – Getting in contact with difficulties

Prnjavor is a village in Central Serbia, located close to the border of Bosnia-Herzegovina and the river Drina. Several times this river has created problems in parts of the village. The last time, in winter 2010, a settlement close to the river and some agricultural land were flooded.
Due to this flood risk, the DRR project coordinator from Sabac (a city with a local Caritas office, about 30 km east of Prnjavor) decided to implement his project in this village, although there had not previously been any contact between the community and Caritas.

Serbia is a country where the state still keeps its eyes on everything that happens, especially activities organized by NGOs. So the project coordinator decided, in deference to this state system, to have a close collaboration with both the municipal administration of Sabac (who are also responsible for Prnjavor) and the local authorities in the village. Meetings took place with the vice-mayor of Sabac and the director of the city administration which resulted in promises of support and an official letter from the vice-mayor which was sent to the local administration in Prnjavor asking them to support the project.

Next, the Caritas coordinator contacted the head of the village council. Some days later a first meeting with official representatives of the village took place in the local community center. The coordinator and the team from the resource center (Caritas Romania) presented the project and participants in the meeting explained details about the most recent floods from 2010. An interesting opportunity for the project appeared when they learned that during the 2010 floods a local group of volunteers worked to evacuate and support the affected population. The Caritas team considered this group as a possible partner for the implementation of the project. Everybody seemed interested and supportive of the project

After the meeting, some participants invited the Caritas team to visit the river and the places that had been flooded in 2010. This is when the expectations of the local administration's representatives became obvious: the construction of a new dyke had been started but they had run out of resources and could not continue on their own.

When the coordinator tried to organize the next meeting difficulties started. His contact person declared that he was still interested but asked to postpone the meeting several times. It also proved impossible to have a meeting with the volunteers. It seemed that the DRR project in Prnjavor got stuck before implementation had even started.

There were several reasons why the project got blocked at this early stage. First of all, it seems that the representatives of the local administration were not really interested in participating in the actual project.

This does not mean that they were not interested in disaster prevention and preparedness at all. They just had their own expectations - the construction of a dyke - which could not be satisfied by this project so they did not give any importance to the project.

The support letter from the municipal administration may also have been - indirectly - a reason for the hidden objection to the project. Caritas did not know much about the political situation in the village and the relationship between the village administration and the municipal administration. It is quite possible that the people in the local village administration did not like getting recommendations from higher levels.

Another possible reason the project encountered problems is the still tense political situation in Serbia. The fact that an NGO, and especially a Catholic NGO (there is only a tiny Catholic minority living in the region), tried to organize a program in the village could also have raised many concerns.
All these facts put together contributed to the project being blocked during the first stages before the project coordinator was even able to get in contact with people from the local community (with the exception of a few representatives from the local administration).

At this point the project in Prnjavor seemed more or less lost. But the project coordinator did not give up and tried a completely new approach. The idea was born during a discussion with a teacher from a nursing school in Sabac, who had already been collaborating with Caritas for a while. She suggested they start working with a group of students, all of them from Prnjavor. A first meeting was organized and 20 students showed up. 10 of them declared that they were interested in participating as volunteers and then project activities were able to begin.

Getting in contact with leaders, stakeholders and possible volunteers is the first step in implementing the project. During the discussions you will probably have already learned a lot about the community. To get a clear image about the local community it is important that you also have first hand observations. A "Transect Walk" is a practical way to get as many impressions and as much information as possible in a short time.

Method	*Transect Walk*
Situation in which the method can be used:	● When the project facilitator is first getting in contact with the community and wants to get in closer contact with the community. ● After forming a group of volunteers, as a first field activity.
Results	● The project facilitator and other people coming to the community for the first time will have an overview about the situation of the community. This overview will be a kind of "inside view", since community members are presenting what is important for them. ● Community members look in a new and more systematic way at their own community. They have to decide what to present to their visitors. ● Improvement of the relations between community members and the project facilitator. During the walk there is a lot of time to discuss. People are often proud to present their village and talk about their situation in a place where they feel at home and they are more likely to open up here than in a formal discussion.
Description:	1. Gather a group of people from the community who are willing to walk with you through the village and present it to you. This may be either a homogenous group, like pupils/students, or a mixed group including people of different ages and roles in the community (may also include formal or informal leaders). 2. Explain the idea of the transect walk to the participants. If there are any special subjects you would like to follow up, discuss this also with the participants. If you think it could be useful to take notes (especially if you are doing the transect walk a bit later in the project implementation with attention to a certain subject), decide who will be responsible to write down the observations.

	3. Make a plan together with all participants about where to start the walk and what the end destination is. In some cases transect walks are done in a straight line through the village, which could give a more representative picture, but this is not always possible or necessary. 4. Start the walk: observe, let the participants explain, ask questions, talk with people you meet along the walk, take pictures. 5. After finishing the walk sit down with all the participants, draw conclusions and thank the participants for coming with you.
Necessary resources	No special resources are needed. Eventually a notebook and a camera.

Forming a group of volunteers - training

After selecting a community in which the organization wants to implement a disaster risk reduction project, one of the major activities of the project facilitator is to form a group of community volunteers. In most cases this is a difficult, but crucial, task because all methods of reducing the risk of disasters have to be implemented with the involvement of the community and especially with the involvement of volunteer groups from the community.

It is recommended to identify a contact person from the community who will work closely with the project facilitator in implementing the activities. The project facilitator, together with the contact person from the community, will make a first visit to the village, in which they will invite more people to a meeting, where they will present an overview about what they intend to do. After the presentation, the project facilitator will invite participants to join the project as volunteers. Perhaps, different people, of different ages and genders will come to the presentation.

The project facilitator must take into account the issues and traditions that characterize the community when forming groups of volunteers. For example, the facilitator will avoid forming a mixed group with children and adults, or a group with normal community members and representatives of the authorities. In certain communities it is also not possible to have men and women work together in a group. If there is already an active group in the community who are willing to participate in the project, the facilitator will work directly with this group and will move on to the next step of the project.

After identifying the group/groups of volunteers, an important step is their formation and training. There will be training sessions introducing them to the concepts and methods of disaster risk reduction (on page 80 you will find links for the materials used in the training program). Once the team is well prepared the project facilitator will start to apply, together with the volunteer group, methods for reducing risk in their community.

Exercise: Just a minute: speeches

Presenting an issue or a request to somebody or even a group of people is not always easy. During the implementation of a DRR project, the volunteers will have many occasions when they will need to explain the project or make a request of someone.

Presentations should be short and give all the necessary information, but it is not only about the content. It is also the way a presentation is delivered that matters. The following exercise will help members of volunteer groups to improve their skills in presenting and explaining their project, activities and concerns.

Description:

Before the exercise can start, the facilitator has to define a number of subjects related to the DRR project which should be presented to a specific audience. Each subject, and the audience to which the subject will be presented, are written on a separate card. There should be as many cards and subjects as participants in the exercise.

Some examples of audiences and subjects:

- Mayor – Respond to question: Why does this village need a DRR project?
- Priest - Request to present the project after Sunday mass
- School director – Inform about your intention to organize an informative program for pupils
- Director of the local community center - Request a room for group meetings
- Group of neighbors from the risk area: Presentation of the project

For this exercise all participants should sit in a circle. The facilitator passes around a hat or a box with all the subject cards inside. Every participant takes one card without reading what is written on it. Only when everybody has taken his/her card do the participants read their subjects. Then they have five minutes to prepare a short speech of maximum one minute.

Now all the participants are invited to give their speeches. Everybody has exactly one minute. The facilitator uses a timer or a watch with a second hand. After every speech there are two or three minutes for short comments from the other participants. If there are more issues to be discussed then the topics are written down so that the discussion can continue at the end of all the presentations.

Praxis example: Transect walk in Skorobishte, Kosovo

The transect walk in Skorobishte was not organized at the very beginning of the project implementation, but after the first steps of the risk assessment had been completed. The occasion for this walk was the visit of the team from the resource center of the regional DRR project from Romania.

Skorobishte is a village located in the mountains above the city of Prizren. The village is built on a rather steep slope (and not in a valley!). The major concerns of people living in the village are landslides and, in case of strong rainfalls, the water transforming the streets of the village into small rivers causing their houses to flood.

The volunteers, a group of young men (16 to 19 years old), welcomed the guests in one of their houses. Here they presented the risk-map they had drawn about the village (see page 33). Afterwards the walk started.

The first points of interest the volunteers presented were different houses in the village, all of them built on a steep slope. High protective walls, constructed from stones and (sometimes) from concrete, were keeping the slopes and houses which were built on a higher level from sliding down onto the houses at lower levels.

During the walk the group passed another massive wall, built by the Salvation Army, which was protecting a street. The next stop was outside the village where the volunteers pointed out a little cave with a spring inside.

On the way back to the village one of the young men showed the team a typical stable for cows which was also used as a barn for storing hay. In this way, the animals were kept closer to the pasture and the place where hay was produced. However, in case of strong rainfalls and landslides, these stables were very vulnerable and it might be impossible to reach them from the village.

The last stop on the walk was on the site of a recent landslide, in a pasture above the village. This place was used for a short lesson on landslides and the volunteers examined the results and effects of the landslide in order to better understand how landslides occurred.

3 RISK ASSESSMENT

III RISK ASSESSMENT

Risk assessment is the first concrete phase of work in the community. The aim of this phase is to get to know the background of the community and the risks to which the community is prone.

Risk assessment is a participatory process. The local group of collaborators/volunteers plays a central role in the process and the assessment should involve as many people from the community as possible. The purpose of the risk assessment for the project coordinator, who in many cases has come from outside the community, is not just to collect as much information as possible.

The volunteers are doing this assessment for themselves and for their own community. As part of the community, and through their volunteer work, they are the first members of the community to become better informed and raise their awareness concerning the existing risks. During the assessment they will not only get informed (in the sense that somebody is transmitting information to them) but they will discover for themselves what the situation is like in their community as they are confronted with their own reality.

This should make them curious to understand more and to look for additional information. Finally, the assessment will help them not only to think about problems, but also to become motivated to find solutions and to change the situation.

This means that the assessment will probably start with questions like, "How was the community affected by floods in the past?" and "What would happen if there was a flood today?" This will raise the interest of the participants for more general questions concerning floods, their reasons, and their effects. This will lead them finally to the question of how their community can be better protected and prepared. The purpose of doing a risk assessment is not an academic or theoretical interest about the situation of the community. The assessment is both the starting point and also the motivation for further action.

During the risk assessment the participants collect and analyze information, which can be divided into four large chapters:

1. Background information about the community: This includes information about the population and its structure, means of income, the economic structure of the community, social networks, organizations etc.

2. Hazards: Which hazards threaten the community? A review of events which affected the community in the past may give important answers to this question, but external information might also be important. This is especially important for disasters that happen infrequently, like earthquakes. The community may be situated in a region of high risk even if nobody remembers an earthquake in the past.

3. Vulnerability of the community: If the community was affected by a disaster in the recent past, vulnerable areas may be identified by analyzing the effects of this disaster. Much vulnerability can be identified directly by observation, but also by analyzing the social and economic structures of the community.

4. Existing capacities: Risk assessment is not only about identifying problems, but also about showing that every community has its strong points and its capacities to withstand disasters and to recover after they happen. These existing capacities are actually the starting point for every improvement.

Like any other project activity, the risk assessment also needs to be well prepared. First of all, the purpose of the assessment has to be defined:

What do we want to know and why?

Another important question is where the information can be found. There are several important sources:

● The most important source of information is the community itself. This means, first of all, direct observation. It is often surprising how many new things can be discovered by community members when they are just walking through their own village with specific questions in mind.
Besides direct observation, talking to people from the community is another important firsthand source of information. This includes ordinary people from the community, but also representatives from local administration, formal and informal leaders, medical doctors, and people working for civil protection.

● "Secondary" information: This includes information about the community (census data, economic information, information about disasters in the past, etc.) as well as general information about certain hazards and risks (risk maps, studies about disaster risks, literature about hazards, etc.). Much of this information can be accessed directly from the internet. Libraries are another important source for this kind of information.

● Information from specialists: In many cases it may be useful to talk to specialists. It is important to keep in mind that the purpose of the assessment is not just to inform the project coordinator, but the volunteer group and the community as well. Specialists often have their problems in communicating with people who are not specialists. They may not be used to communicating in a language that is intelligible to all, or to concentrating on the points that are significant to the community's interests. Here the project coordinator has a special role in facilitating the communication between specialists and the community members, maybe even acting as a "translator".

There are several methods to access the information described above and to get a clear picture about the community and the risks with which it is living. Some of these methods are described in the following pages.

Always keep in mind that risk assessment is a participatory process. Asking as many questions as possible to community members will not only raise the awareness of the members of the volunteer group, but of all the people involved in the process. In doing so, risk assessment is not only a preparatory phase - it is a first real step to creating awareness and reducing risk to make life safer.

Method: Risk map

Method	Risk mapping
Situation in which the method can be used:	The method can be used at the beginning of the risk assessment process. The purpose of a risk map is to identify: ● hazards affecting the community ● safe and dangerous areas in the community ● places that could be affected in the case of a disaster ● vulnerabilities of the community ● resources available in the community It is useful to have the risk map made by a group of volunteers from the community with the support of the project facilitator. Children usually make very good maps of their community.
Results	● Displayed in a public place, the risk map increases public awareness regarding the hazards that confront their communities. ● It provides the necessary information for interventions in the risk area. ● It helps the community members to increase their capacity for disaster response.
Description:	● The project facilitator, together with the volunteers will make a field visit in the community. ● During the field visit, important areas of the community which may be affected by disasters (roads, bridges, houses, buildings and institutions) and the safe areas (e.g. the school or a big building where people can be evacuated to) will be identified and written down on sheets of paper. ● After the field visit, the project facilitator and the volunteer team will meet to map out on a flip chart all the information they'd gathered. ● At the beginning, the volunteers will draw a map of the village with all the main roads, bridges and rivers that cross the village. ● The project facilitator will ask the volunteers to continue with the houses and the buildings that are important for them (school, church, hospital, police, and city hall) and to identify their locations on the map. Also, the families/people that are more exposed to risk and the community facilities (e.g. drinking water) that are in danger can be added to the map. ● In the end, the areas which are most exposed to possible risks (floods, landslides, and earthquakes) and the safest areas near their homes will be identified. Ask the volunteers to choose a color that will indicate dangerous areas and another color for safe areas.
Necessary resources:	● Sheets of paper ● Markers ● Flip chart ● Meeting room

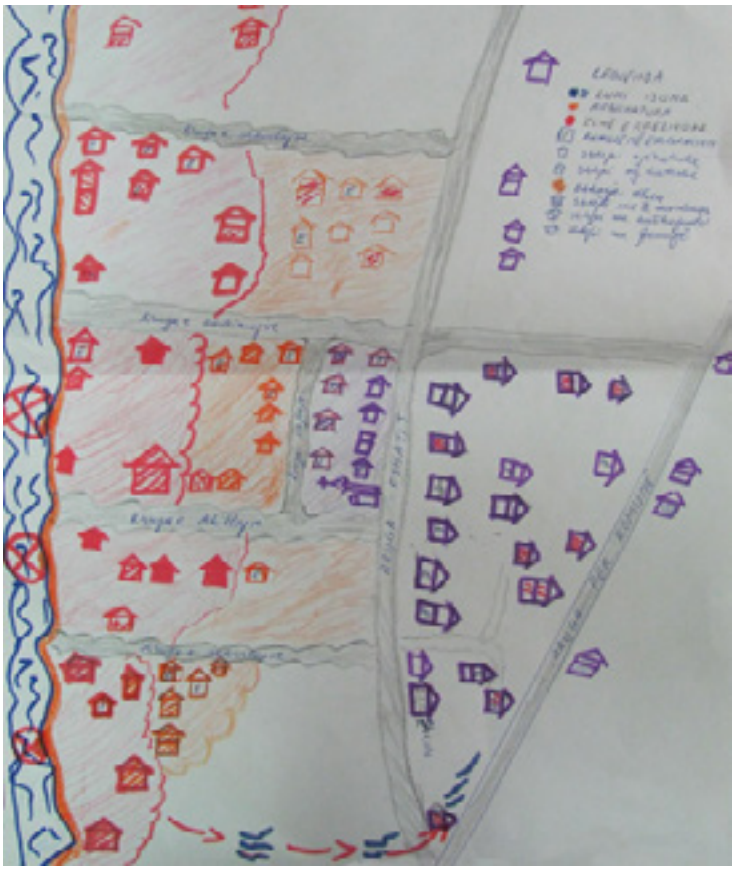
Praxis example: Risk map of Dajc, Albania

Dajc is a municipality in Northern Albania, located on the banks of the river Buna. There are 11 settlements in the municipality and the total population is about 9,000 people. Most of the villages belonging to the Dajc municipality are situated in the flatlands, often directly on the banks of the river Buna, but there are also villages like Pentar located on hills.

The main source of income for the population of Dajc is agriculture, especially cattle farming. Like in other regions of Albania, many people from Dajc left the country and are living and working abroad.
The majority of the population is Roman Catholic and the Catholic parish in Dajc, with churches in most of the villages, is one of the central institutions of the community. There is also a Muslim community in Dajc. Relations between the two groups are without major problems.

From December 2010 until February 2011, and again in December 2011, the village (like many regions in Northern Albania) was affected by serious floods caused by heavy rainfall and warm temperatures in the mountains. Hundreds of families had to be evacuated, but there were also many people (at least one person from each family) who stayed in the flooded villages.

Risk map of Dajc



The risk map of Dajc was drawn by the local group of volunteers, composed of village leaders from villages belonging to the Dajc municipality and volunteers from the local parish. The map reflects many experiences from the floods that happened in December 2010, just a few months before this map was drawn. This map, showing the streets and houses of the villages, gives clear information about areas prone to flooding (red - high risk, orange - medium risk, blue - safe). Areas where the dyke which protects the village may break are also indicated.

The most important information that the map provides is about the vulnerability of every individual house and family. Every house is labelled with signs showing whether it is single-storey or two-storey, if someone in the family lives abroad, or if there are elderly or disabled people or families with children living in the house. All this information will be used in the case of an urgent evacuation of the village.

The map clearly indicates where families who will need help for evacuation are living. This will ensure that if a flood affects the village, nobody will be left behind and support teams (for example, volunteers from the parish) will know exactly where to look for those most in need of help.

Praxis example: Risk map of Skorobishte, Kosovo

Skorobishte is a small village in the mountains, constructed on quite a steep slope. Houses and streets are built on terraces cut into the slope and protected by high walls. In several places landslides threaten the village and the surrounding agricultural land. In the case of strong rainfall, the water will pour down the streets converting them into little rivers. Sometimes the water even enters the houses.

This risk map was drawn by a group of volunteers formed of 13 young people aged between 18 -22 years. All the people in this group are male. After several visits to the community, they drew the map with information about risk areas, safe areas and also places most affected by landslides.

At first, using a flip-chart, the volunteer group made a sketch of the village based on the information gathered in the field and based on their own experiences. Living in the village, the volunteers knew the community well so they sketched the major issues and points of interest as they had identified them after the first field visits (school, mosque, access roads, individuals and families, houses, etc.). Analyzing the results, they realized that many aspects which could be helpful in case of disaster were still missing from the map. So they made other field visits to collect information and to identify these issues. Then they had another meeting in which they finished the map.

The map drawn by the volunteer group presents the biggest problems that the Skorobishte community is facing. Coloring it brown, they have highlighted the area where landslides are a big problem. Because the village is built on a fairly steep slope, the volunteers identified a safe evacuation area to be used in the case of disaster. This was the area where the school and the ambulance service were already located (left side on the map).

Praxis example: Risk map of Dolno Ezerovo, Bulgaria

Dolno Ezerovo is a settlement of about 8,000 inhabitants just a few kilometers outside of Burgas. Part of the population works in agriculture, while others commute to nearby Burgas or to a nearby mineral oil refinery.

The village is located on the shore of Lake Vaya, making it one of the lowest points in the area. A little river passes through the village. The vineyards that once surrounded the village have either been abandoned or destroyed, so if there is strong rainfall the soil has no capacity to absorb the water and it immediately flows into the river and the village. In the village, the river is conducted into a subsurface channel which does not have the necessary capacity and gets blocked easily by waste. To make things worse, the channel is also used for waste water from the village. This situation has caused serious floods several times, especially during the winter periods.

In winter 2009/2010 a part of the settlement was flooded three times. The water even reached the school in the village which was to be evacuated. This was also when the first contact between Caritas and the village occurred, when a team from Caritas Burgas distributed humanitarian aid packages there.

The volunteer group from Dolno Ezerevo, formed of pupils (12-13 years), started to draw the risk map after a "transect walk" around the village and lake. They visited all the areas in the settlement that were in danger of being affected by floods. Using the information they had collected on the walk, they drew the risk map which gave information about risk areas, safe areas, and areas affected by floods in recent years.

While drawing the risk map, the group of volunteers used blue to highlight the lake and drainage systems which created serious problems when flooding occurred. All areas surrounding the sewer system are identified as risk areas, and are colored red. Because it was made by a group of children, an important issue drawn on the map was the school which was in a high risk area and had been affected by floods in the past. The volunteer group members were at the school when it was flooded in winter 2009/2010.

On the map they also identified some neighborhoods where they would be safe in case of floods, which they highlighted in green. What was considered to be the safest place for evacuation was the pasture outside the village. This was represented by the color green and a horse.

Method	Seasonal calendar
Situation in which the method can be used:	Seasonal calendars are used during the risk assessment. Since all necessary information is known by the community members, the method can be used at the beginning of the process. The best occasion to do a seasonal calendar is during a meeting with local project collaborators or with representatives of the community. It may be useful to do several seasonal calendars with different groups (men, women, young people, people working in agriculture, administration, etc.) Seasonal calendars can also be used in individual interviews with community members.
Results	The seasonal calendar presents an overview of human seasonal activities in the community and about periods when the risk of disasters, especially those caused by hydro-meteorological events, is highest. This information is useful to predict periods when disasters may occur but also to identify periods of the year when people are available for community activities.
Description:	1. Prepare a flip chart showing a table with columns for each month of the year plus one more column to the left for the main activities and periods (see example below). 2. Discuss the principal human seasonal activities (field work, work in forest, harvest, etc.) and the natural periods (rainy season, storms, snow, snowmelt, drought, etc.). With the participants, write the main periods and activities in the left-hand column of the table. 3. Discuss and decide in which months the key activities and natural events occur. This can be done either by reaching a consensus during the discussion or by inviting the participants to individually put their marks on the calendar. If there are different opinions, this might start a process of discussion and make people even more interested in the subject. 4. Discuss the results with the participants and draw final conclusions.
Necessary resources:	● Meeting room ● Flip chart ● Markers

Praxis example: a seasonal calendar done by the project team from Dajc, Albania

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rain	x										xx	xx
Storms	x											
Drought							xx	xx				
Field work			xx	xx	xx							
Harvest									xx	xx		
Greenhouses			x	x	xx	xx	xx	x	x			
Decorative trees	xx	x	x	x	x	x	x	x	x	x	x	xx

A slope-finder was used by volunteers in Viseu de Sus, Romania to measure the decline of mountainsides. This allowed the group to identify areas at risk of landslides, which then have been marked on the risk maps.

Method: Timeline

A timeline is a simple method to use in order to get an overview of the history of disasters that have affected a community in the past.

<table>
<tr><th>Method</th><th>Timeline</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Situation in which the method can be used:</td><td>The timeline method is used during a risk assessment. A timeline can be prepared during a meeting with a group (the group of volunteers itself, a group of neighbours, representatives of local administration, etc.). This method can also be used as an introduction during the first meeting with a group.

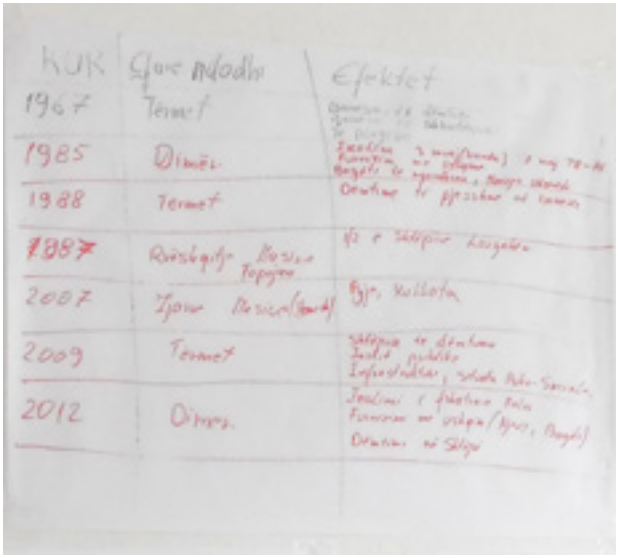
Timelines can also be done during individual interviews with community members.</td></tr>
<tr><td>Results</td><td>This method provides a written document which presents a chronology of disasters that affected the community in the past. It covers the period that people in the community can remember. In some cases, it will also include major disasters that happened a long time ago.

Doing a timeline is not only about the past. By showing which kind of disasters happened in the past, it gives clues to what may happen in the future. In the case of repeating disasters (like floods), a pattern may become visible which will help create an even clearer picture about potential future events.</td></tr>
<tr><td>Description:</td><td>When doing a timeline with a group, a simple table should be prepared on a flip chart:

<table><tr><th>Year</th><th>Event</th></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>
Start a discussion with the people and ask them to remember what happened. Give them some time to tell their stories. Sometimes information and (especially) years will get mixed up in the beginning, but in the end the group will be able to put the information in the right order.

Do not use written sources or chronologies when you are talking to the people. This exercise is about remembering, not about looking into books. This is why the method works especially well with elderly people. After the meeting, though, somebody from the project group may have to look at written sources to verify the information.

If timelines are done in individual interviews, prepare the table on a sheet of paper and fill it in during the interview. After finishing the interviews the results can be summarized in a single document.</td></tr>
<tr><td>Necessary resources:</td><td>● Meeting room
● Flip chart
● Markers
● For individual interviews: printed timeline tables</td></tr>
</table>



Praxis example: Shupenze, Albania

Shupenza is a community composed of several mountain villages and settlements in the east of Albania. After the earthquake in the summer of 2009, Caritas Albania implemented relief and reconstruction programs, including the rehabilitation of the local school building.

In summer 2012, a Caritas team met with a group of community leaders and employees from the local administration for a short workshop on disaster risk reduction. During this workshop the participants prepared a timeline showing the major events of the last 70 years.

Year	*Event*
1942	***Strong earthquake***
1967	***Earthquake***
1985	***Severe winter weather***
1987	***Massive landslide***
1988	***Earthquake***
2007	***Forest fire***
2009	***Earthquake***
2012	***Severe winter weather***

This timeline shows two important issues:

First of all, there is a high risk that different kinds of hazards will affect the villages. And, secondly, there is a pattern of earthquakes occurring at intervals of about 20 years.

Method	Interviews
Situation in which the method can be used:	● There are three types of interviews used to gather information: unstructured, semi-structured and structured interviews. These distinctions refer to the degree of flexibility regarding what to ask and in what order. For humanitarian aid workers, the semi-structured interview seems to be the most appropriate option. ● This method is useful for learning about the community and especially the events that happened in the community in the past. ● It can be used in combination with other methods. ● Interviews can be conducted at different moments and different stages of the project: during the risk assessment phase, during implementation and/or as an evaluation method.
Results	● Interviews will not only help the community members to identify several vulnerabilities and problems within their community, but also to see the available resources. ● They provide an overview of the community. ● Interviews may contribute to raising awareness amongst the people being interviewed.
Description:	● Before going out into the field, the project facilitator must train and prepare the volunteer team. ● A list of questions will be prepared by the volunteers, together with the project facilitator. ● The list of questions must include all important aspects: description of events in the past, actual risk situations, social aspects, etc. (see list of questions in the textbox below). ● During the interviews, the interviewers will use this list to ensure that they cover all the important topics. The list will remain open to new questions that may appear during the interview, depending on the responses and information received. ● The project facilitator will divide the volunteer group into interview teams of two persons. Never send a lone person to conduct interviews with the people of the community. ● The interview teams will conduct the interviews with all the available people, families and important actors from the community. ● Each individual interview should last approximately 45 minutes. ● The project facilitator will ask every interview team to note down all the information gathered even if sometimes it's not considered relevant.
Necessary resources:	● Meeting room ● Notebook

List of possible questions:

- *When did disasters occur in the village previously and what happened then?*
- *What were the last disasters in the area (floods, landslides, etc.)?*
- *Exactly what happened during the disaster?*
- *What happened before the disaster?*
- *How did the people find out that a disaster was approaching?*
- *What did they do to protect themselves?*
- *What areas do they currently consider to be the most exposed to risks?*
- *Which people (or families) do they think are most exposed to risks?*
- *What are the areas and places considered safe?*
- *What can they do so that a disaster will not be repeated?*

Praxis example: Interviews in Viseu de Sus, Romania

After two training sessions, in which the group of volunteers was trained to apply the methods of risk assessment, the project facilitator went along with them into the field to do interviews with the families from the flood risk areas.

The group of volunteers, consisting of 6 young people (girls and boys), was divided into three teams of two people. Each team received a pen and a notebook where they had written down some possible interview questions. After each team conducted the first interview, the project facilitator had a small talk with them about how it went, what it was that each of them found out and, most importantly, if they had encountered any difficulties. This discussion took place in a non-formal setting, out on the street. At each interview, the project coordinator changed the team members because, although, some of them had understood what to do very well, those who were not as knowledgeable could learn from example and gain experience by being on the same teams as those who were more skilled.

In the end, 30 interviews were conducted in the community and, even though it was hard at first, the group of volunteers were able to discuss any problems they encountered with the project facilitator who was present throughout the activity.

Praxis example: Interview from Skorobishte, Kosovo

The group of volunteers from Skorobishte in Kosovo visited several families in their village to learn from them about disasters that had affected their community in the past. One of the discussions took place in the house of Hajdar Rexha, which was visited by two members of the local volunteer group.

Volunteer: Thank you, Mr. Rexha, for receiving us in your home. We are members of the Caritas volunteer group. We are working on a project to reduce the risk of disasters which affect our community.
Mr. Rexha: Yes, I have already heard about you and your group. So it is about disasters…
Volunteer: We would like to ask you about natural disasters in our village. Did any disasters such as floods, landslides, fire, etc. happen in our village in the past?
Mr. Rexha: Our village has burnt down two times. This happened about 50 years ago. At that time the houses were covered with straw and were built very close to each other. In the case of a fire in one house there was always the risk that the adjoining houses would get burnt too. The material used in those times for covering roofs was very flammable and fire could spread very fast.
Volunteer: How serious were those fires? Were there any victims?
Mr. Rexha: Quite a lot of houses burnt down completely and there were also some victims. For some families, whose houses were completely burnt, the state provided land in Lubizhdë village, down in the valley, where they took shelter immediately after the fire.
Volunteer: Have there also been other kinds of disasters in the village?
Mr. Rexha: In 1974, after very heavy rainfall, the water level in the river bed rose very fast and caused flooding which affected the houses near the river. On top of the houses, the floods also affected cattle and stables. You know, we have our stables up the hill quite close to the river. 19 cows were taken by the water. Later we found them dead down in the village of Lubizhdë. That is almost 4 km from our village.
Volunteer: Why are the stables built so far away from the houses?
Mr. Rexha: There are several reasons why we build our stables at quite a distance from our houses. I think it is cleaner if the animals are not directly in the village. The other reason is that space is very limited in the village. So the stables are outside on the hill, much closer to the pasture and the place where hay is produced.
Volunteer: When it rains a lot, there is always a lot of water that runs down the streets. What do you think about this issue?
Mr. Rexha: This is a very big problem for the village. When there is heavy rainfall, the water on the streets turns into small rivers and causes problems to the first floors of the houses. The water also damages the streets creating big potholes and these make further problems for the population, cattle and transportation vehicles.
Volunteer: What do you think about the waste dumped into the river?
Mr. Rexha: Many people from our village are throwing their garbage in our river. This, of course, harms the people themselves but it also means polluting nature and the water. It is a very bad example of our village. We tried to put some garbage containers in some places around the village, but there was no company from public services that could come and take the garbage away. Also, children were playing around the containers.
Volunteer: Mr. Rexha, we want to thank you for the time you spent with us. We have learnt a lot about what has happened in our village in the past. This will help us very much in our project. Good bye.

4 ANALYSING THE REASONS FINDING SOLUTIONS

ANALYSING THE REASONS FINDING SOLUTIONS

During the process of risk assessment, a large quantity of information from different sources will be gathered. All of this information can be used to create a final analysis of the situation in the local community.

Doing this analysis is a participatory process involving the local project team, but also other formal and informal representatives of the project community. Sometimes it can be useful to have separate meetings with different groups, for example with official representatives, young people, people living in a disaster-prone area of the community, etc. The analysis should include four elements:

- Hazard analysis
- Vulnerability analysis
- Identification of central problems
- Detailed analysis of central problems (problem tree)

The hazard analysis

There may be one, or several, hazards threatening the community. Each hazard has to be analysed separately. The hazard analysis is based on the information collected locally, but it may also be necessary to consult with experts and to look for further information. This important task is the responsibility of the project coordinator, who should facilitate the analysis and create access for the members of the project team so that they can reach this information. If an expert is consulted, the coordinator has to make sure that the information is communicated in a way that the local collaborators are able to comprehend.

<table>
<tr><th>Method</th><th>Hazard analysis</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Situation in which the method can be used:</td><td>This analysis can be done after the process of risk assessment has been completed and all the necessary information is available. Important sources of information for the hazard analysis are: risk maps, timelines, seasonal calendars and specific information about certain hazards (from specialists, publications, interviews with community members, etc.)</td></tr>
<tr><td>Results (what will be changed by this method):</td><td>By the end of the analysis the participants will have a clear picture about the hazards threatening their community and the characteristics of these hazards. The information will be made available in written form and can be used as a tool to inform the community.</td></tr>
<tr><td>Description:</td><td>The analysis is done during a meeting of the project team, and facilitated by the project coordinator. First the group decides which are the most important hazards that exist in the community. Using a flip chart, a table is prepared for each hazard which shows the following categories:

<table>
<tr><td>Hazard</td><td>Name the hazard and give a short description</td></tr>
<tr><td>History</td><td>When did this hazard cause a disaster in the community in the past? What happened?</td></tr>
<tr><td>Frequency</td><td>How regularly does this hazard affect or threaten the community?</td></tr>
<tr><td>Speed</td><td>How fast is the onset? Are there early warning signs? How much time does the community have to take action?</td></tr>
<tr><td>Location</td><td>Which areas of the community are affected?</td></tr>
<tr><td>Duration</td><td>How long does the event last? (for example seconds in the case of an earthquake, several days in the case of floods)</td></tr>
<tr><td>Severity</td><td>Describe the usual extent of the hazard, but also give a worst-case scenario.</td></tr>
</table>

Every point is discussed by the participants. A summary of the findings is written on the flip chart by the moderator.</td></tr>
<tr><td>Necessary resources:</td><td>● Meeting room
● Flip-chart</td></tr>
</table>

Praxis example: Hazard analysis in Viseu de Sus, Romania

This analysis was developed by a group of volunteers (adolescents) during a team meeting. The analysis was based on the experience of the team members (most of them living in the areas most at risk), interviews and their own observations while preparing the risk map.

Hazard	Flash floods
History	1970; 1974; 2000; 2001; 2008
Frequency	Quite often
Speed	Very fast onset
Location	Vaser Valley neighborhood in Viseu de Sus, Romania
Duration	Few hours
Severity	Serious impact: human victims, houses affected, roads, bridges, electricity lines, railroad, gardens.

The vulnerability-analysis

The Disaster Crunch Model has already been presented in chapter 1. This model not only illustrates the correlation between hazards, vulnerabilities, dynamic pressures and underlying causes, but it also provides a useful tool to get to a deeper analysis of the vulnerabilities within a community.[1]
If there is more than one hazard threatening a community, this method of analysis should be applied separately for each hazard.

The following table is used for the analysis of vulnerabilities:

Categories of analysis	Elements at risk	Vulnerable conditions	Pressures	Underlying causes
Economic assets				
Natural assets				
Physical assets				
Individual assets				
Social assets				

The analysis of vulnerability starts with identifying the elements at risk, asking what will actually be affected if a disaster occurs. Every aspect of life should be included, which is why the analysis tool includes five categories of assets to be analysed. “Assets” are defined as the useful and desirable things/qualities which exist in a community.

Economic assets: Everything related to household income, livelihoods and possessions that can be turned into money. This includes animals, items of value that may be sold, savings, salaries from jobs, other income like retirement pensions, social welfare or child benefits, and remittances from family members who have left the country. Also, the access to credit may be an important point to note.

[1] ***Paul Venton and Bob Hansford, Reducing Risk of Disaster in our Communities, Tearfund - Roots 9 (1st Edition 2006 and 2nd edition 2011)***

Natural assets: Natural resources which are available to the community and its members. This includes forests, rivers, pastures, minerals, etc. Many activities that generate income and support livelihoods are centred around natural assets. It is important not only to record the existence of natural assets, but also to note whether there would be a possibility to access them after a disaster.

Physical assets: Everything which is made by man. This includes houses and other constructions, community infrastructure (roads, water and electricity supply, communication lines, physical flood protection) and also the equipment used in agriculture, crafts, transportation, etc.

Individual assets: Everything that is related to individual people. This includes first of all life and health, but also skills, knowledge, and experiences.

Social assets: Relationships, networks and structures which exist in the community. Disasters may have a major impact on the social relations between community members. Different forms of collaboration may be strengthened or weakened by a disaster. The social status of certain groups may be changed.

The most important source of information is the firsthand experience community members had with disasters in the past. Interviews and focus group discussions during the risk assessment process provide important information which can be used to identify elements at risk.

The next step is dedicated to determining the vulnerable conditions and identifying why the assets are actually at risk. This includes issues like the location of assets (buildings, agricultural land in flood plains), the strength or resistance of constructions, information (for example early warning), knowledge, and skills (how to react in the moment of a disaster), community organisation, access (for example to shops, medical services, jobs) during and after a disaster, etc. In some situations it is possible that an element at risk may also represent a vulnerable condition to another element at risk. For example an access road can be, at the same time, both an element which risks being destroyed by a landslide as well as a vulnerable condition for a sick person who wants to get to a hospital.

The column called pressures defines who and what is creating the vulnerable conditions and in which way. This includes local social and economic structures in the community, local structures of power, and how the access to information is facilitated or constrained.

The last column presents the underlying causes, which explain the reasons for the existence of the pressures. There are four possible categories for underlying causes:

- political issues and ideologies
- economic structures and systems
- culture, beliefs and values
- the natural environment

Praxis example: Shupenze, Albania

The municipality of Shupenze is located in Northeastern Albania, close to the border of Macedonia in a mountainous region. The municipality is composed of 12 villages, some of which are situated in isolated valleys between the mountains.

The main source of income for the population is agriculture, although the land available for agriculture is limited. The main products from the village are potatoes, fruit and milk (from cows and goats). Like in most Albanian villages, many young people have left either for a bigger city in Albania or emigrated to other countries.

During the last few years, the villages of Shupenze have been affected by several disasters:

- *Severe winter weather causing isolation*
- *Earthquakes*
- *Landslides*

Hazard: Extreme weather

- *Severe winter conditions with periods of very low temperatures, high winds and heavy snowfall*
- *Drought during the summer months*
- *Landslides and soil erosion*

Analysis of vulnerabilities

	Elements at risk	*Vulnerable conditions*	*Pressures*	*Underlying causes*
Economic assets	● Domestic animals (especially cows and goats) do not survive periods of extreme winter weather or they have to be sold ● Reduced yield (maize, potatoes) due to long winter and damaged soil	● Stocks of fodder for animals are not sufficient for a winter with extreme conditions ● Improper storage conditions for fodder and agricultural products: humidity and barns collapsing under the snow load ● Agricultural methods are not adapted to new climatic conditions and are even contributing to soil depletion and land degradation	● Poverty and the lack of resources on both an individual and community level have a major impact on the creation of vulnerabilities in the community. ● Economic structure oriented exclusively to small-scale agriculture. ● Structure of land-ownership: many families only have very small pieces of land (less than a hectare). Soil erosion is continuing to reduce the surfaces that can be used for agriculture.	● Isolation of the region. ● Traditional economic structures were destroyed during communism. ● After the experience of forced collectivization during the communist era, the idea of “doing things together” is rejected. ● Local authorities do not have a clear vision about the development of the community. ●Rural areas are not a priority for the government, so there are hardly any investments in these poor, isolated areas.

	Elements at risk	*Vulnerable conditions*	*Pressures*	*Underlying causes*
Natural assets	● Soil erosion on most slopes. Soil has been washed away leaving only rocks ● Forests (those small forests that still exist) are affected by extreme weather (winter, but also drought) ● Water in streams is polluted due to the general destruction of the environment (erosion)	● Most forests have been cut leaving the soil on the slopes unprotected. Even bushes are cut to be used as animal fodder during winter. Remaining pieces of forests are much more exposed to extreme weather. ● Improper land-use: overgrazing, especially by goats	● The region is isolated and far away from larger urban centers. Transportation of products to markets is expensive and prices for agricultural products are low in the region. ● There is a lack of information and knowledge about new agricultural methods which are better adapted to the conditions of a changing climate and which help to protect the land from further damage. ● There is little investment in the improvement of local infrastructure (schools, health care, roads). Most public institutions (for example health centers) exist only in the main village, but not in the isolated settlements in the mountains. ● State support for farmers is accessible only to those owning a certain amount of land. ● Legal regulations for protecting the environment (slopes, forests) do not exist or are not enforced. ● There is a lack of community organization. Many people even dismiss the idea of cooperative organizations (for example, for processing agricultural products or for marketing).	● Educating or sharing information with the population is not seen as a priority by the authorities. ● Strong traditions make any changes difficult.
Physical assets	● Houses and other buildings (barns, public buildings like schools and medical centers) are damaged in extreme weather conditions: roofs collapse under the load of snow; doors and windows fail to protect the rooms inside. ● Access roads to small settlements get blocked by snow. Water (from rain and snow-melt) is destroying the roads.	● Many houses and other buildings are old and have not been renovated for a long time. Wooden materials used for roofs have started to decay. ● Traditional construction methods are not adapted to extreme weather conditions: roofs covered with stone slabs get too heavy under the snow load; adobe constructions show cracks and the infiltration of water. ● There is a lack of equipment that can be used to keep roads open during periods of heavy snowfall. ● The bad condition of the roads makes efficient snow removal impossible. ● Roads are not protected against erosion (by snow and water).		
Individual assets	● Health of people is affected in several ways during periods of extreme weather: improper living conditions (cold, humidity),	● Blocked roads obstruct the access to the village center (which is the location of the school, medical center, shops, etc.).		

	Elements at risk	*Vulnerable conditions*	*Pressures*	*Underlying causes*
	insufficient and unbalanced nutrition, lack of professional medical treatment. ● Children do not attend school during periods of severe winter conditions.	● There are insufficient stocks for the winter period. ● Lack of sufficient financial resources for buying food during the winter or in the case of the harvest being damaged. ● The school building is not adapted to strong winter conditions (no efficient heating system; single- pane glass windows which are often broken, no electricity in the classrooms)	● Economic interests of the local people ● Irresponsability of the people ● Lack of proper space for containing waste ● Lack of professional knowledge about building retaining dams ● Lack of jobs ● Lack of professional-ism in the construction of bridges and houses ● Lack of interest by the local authorities in the construction of protective dikes ● Authorities give per-mission to build houses on the floodplain ● Lack of information given to the population about risk maps ● Authorities have no capacity to intervene usefully	
Social assets	●There is a traditional system of mutual sup-port between neigh-bors and relatives. This system is breaking down when the whole community is affected by an extreme situation like long and severe winter condi-tions, isolation etc.	● There are not enough resources within the community to support all those in need if the major-ity of the families are affected.		

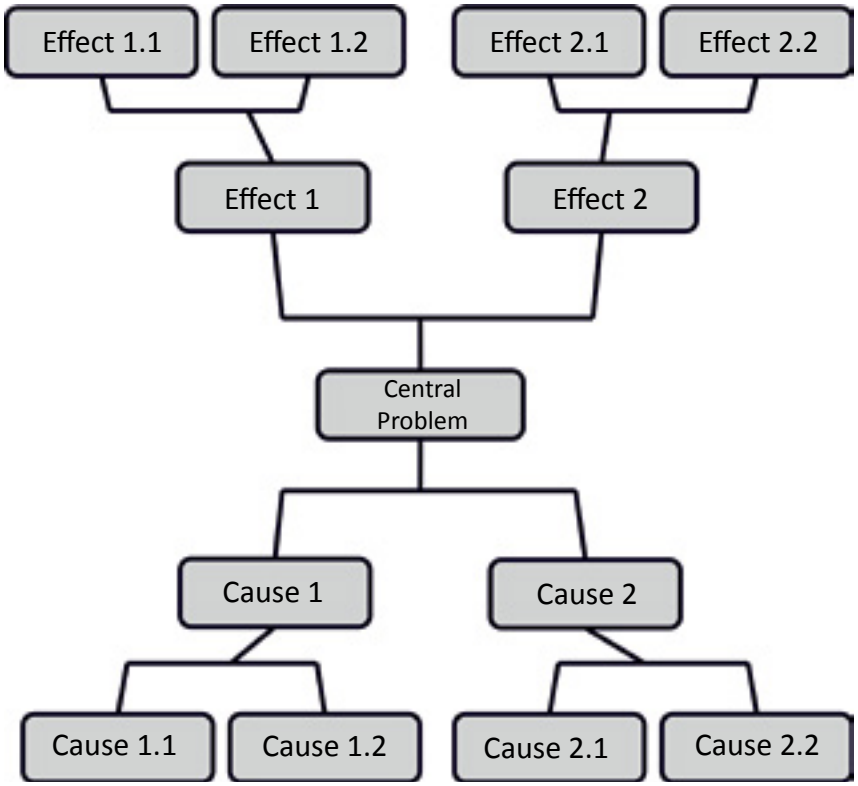
Praxis example: Viseu de Sus, Romania

The analysis of vulnerabilities was prepared by a group of young volunteers, most of them living directly in the Vaser settlement. The analysis was preceded by a detailed risk assessment including the preparation of a risk map, interviews with families living in the area, discussions with authorities and field visits to the areas of landslides and the decantation lake.

	Elements at risk	*Vulnerable conditions*	*Pressures*	*Underlying causes*
Economic assets	Jobs	Access roads are not protected against floods	Economic interests of the local people Irresponsability of the people Lack of proper space for containing waste Lack of professional knowledge about building retaining dams Lack of jobs Lack of professionalism in the construction of bridges and houses Lack of interest by the local authorities in the construction of protective dikes Authorities give permission to build houses on the floodplain Lack of information given to the population about risk maps Authorities have no capacity to intervene usefully	Local economy Geografy of the region Lack of education Lack of respect for nature Laws are not respected
	Railway line			
	Tourism	Lack of vegetation on river-banks Waste thrown on river-banks. Stables and gardens located in the flood plain		
	Gardens			
	Agriculture/harvest			
	Animals			
Natural assets	Pollution	Deficient retaining dam (mining deposit) Waste, wood and sawdust deposited on river side Cutting of forests		
	Animals in the river			
	Vegetation – because of landslides			
Constructed assets	Bridges	Access roads are not protected against floods		
	Roads			
	Houses	Houses are built on the floodplain		
		Houses are poorly constructed		
		Houses are not protected from materials carried by floods		
		Lack of vegetation on river banks		
Individual assets	Human lives	Lack of information about risks Izolation – lack of access		
	Health			
	Wells	*Why have wells that were not flooded have been affected?*		
Social assets	Relations between people	Inproper distribution of humanitarian aid		

Problem Tree

A "problem tree" is a visual method used to help analyse and understand the connections between a central problem, its causes and further effects. The causal relationship is illustrated as a tree: the trunk representing the central problem which is being analysed with the problem tree. The roots show the causes of the problem. The roots closest to the trunk are the main causes, and deeper roots are the underlying causes. The branches and leaves of the tree show the effects generated by the central problem.



A problem tree helps us to get a clearer picture of the complex situation that results from the many different causes and subcauses of a problem. In turn, this then creates a clearer view of the multiple effects that may be caused because of the central problem.

Doing a problem tree is not only an "intellectual exercise", but it is oriented towards finding sustainable solutions for the central problem.

Problem trees can be prepared by local groups of volunteers who have already participated in the process of risk assessment. The facilitator of the group should be familiar with the method and with the local situation.Problem trees may be used both when planning a relief programme after a disaster and when preparing disaster preparedness and prevention programmes. In both situations the methods will be used after a broad process of assessment. Doing the problem tree is the last step of assessment and analysis for the situation, but also the first step of developing a strategy and an action plan to improve the situation. Solving the central problem becomes the purpose of the new project.

The causes and underlying causes become a part of the strategy, which are targeted by the activities and outputs of the project. In this way, sustainable solutions can be found which will not only contribute to a short term solution for the central problem, but will lead to a long term improvement of the situation overall.

Method	Problem tree
Situation in which the method can be used:	Problem trees are developed at the end of the risk assessment process. The group making the problem tree should at least have acces to all of the results from the assessment process, and, ideally, should include people who actively participated in the risk assessment process.
Results (what will be changed by this method):	The problem tree will provide a clear, visual image about a central problem (if there is more than one central problem, individual problem trees should be prepared), its causes and effects. Making the problem tree helps the participants to understand the logical structure of causes and effects that lie behind their problems. The final problem tree can also be used for communication purposes - to explain the situation to a larger audience or to stakeholders, to make them understand the underlying logical chains. The effects identified in the problem tree show why the selected central problem is an important issue for the project community. The causes that were identified show where the solution to the problem may be found.
Description:	1. Selection of the central problem: This may be a longer process. The problem should affect the community directly. The facilitator will help the group to identify a problem, which is neither the cause nor the effect of a more important problem. When the problem has been identified, it will be written down in a clear problem statement in the middle of the flip chart. This statement forms the trunk of the problem tree. 2. Identification of causes: The participants will brainstorm and write down all the possible causes and effects. For every cause and every effect a separate piece of paper (Post-It) should be used, one color for causes, another for effects. 3. All the papers are arranged on the flip chart. The causes form the roots of the tree, the effects the branches and leaves. The main causes and main effects are stuck closer to the trunk, and underlying causes and secondary effects are stuck at the top and the bottom of the flip chart. 4. Finally, lines are added which show direct logical relations. If necessary, causes and effects may be rearranged. It is also possible that one underlying cause leads to several main causes. Then the picture becomes more complex. 5. At the end, the facilitator reviews the problem tree with the group to see if everything is in the right place.
Necessary resources:	● Flip chart ● Markers ● Repositional Notes (Post-it) or small pieces of paper in two different colors

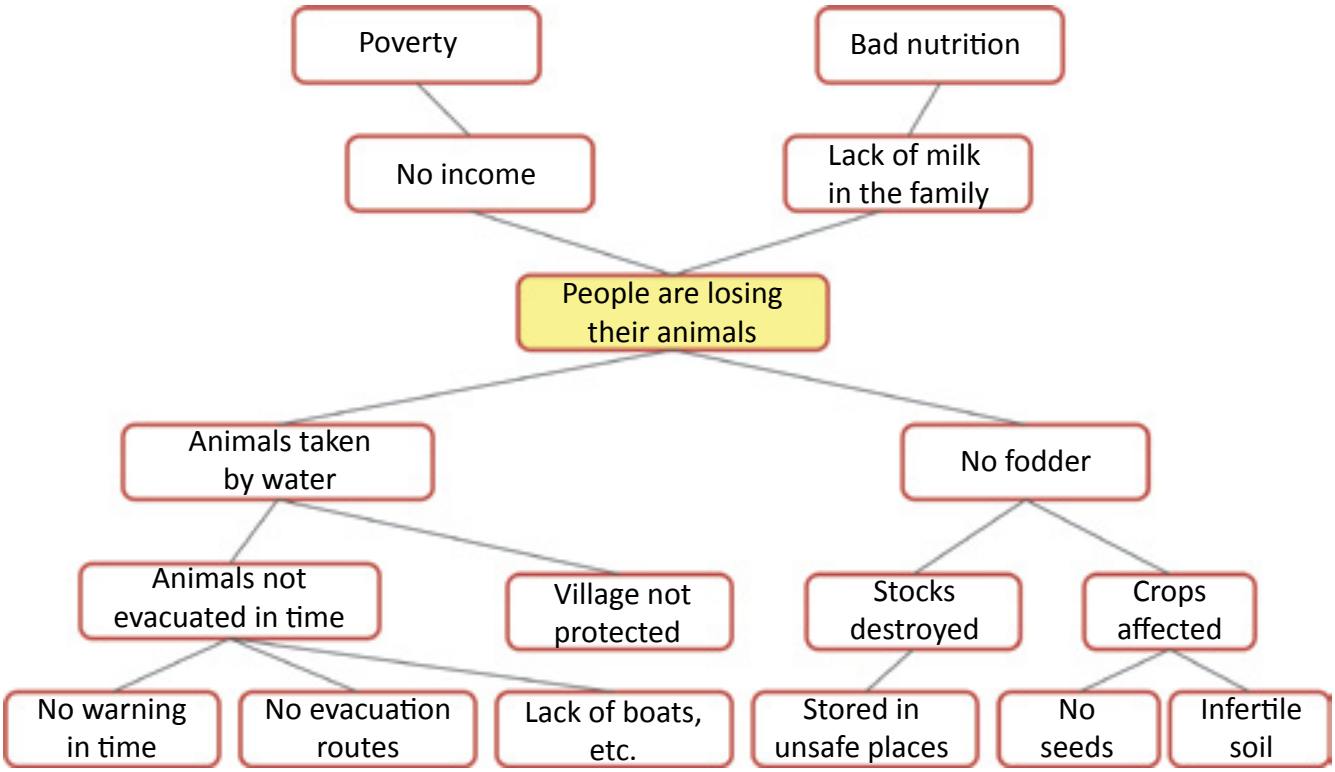
„Problem trees and how they have been done"

Praxis example: Dajc, Albania

Four village leaders, volunteers from the local Catholic parish, the parish priest and a team from Caritas (including representatives from the project´s resource center and the project coordinator from Caritas Albania) met in a room of the Catholic Parish in Dajc to analyse the causes and effects of the most urgent problems that occurred during floods. The discussion took place after the participants had already spent a day working together on the evaluation of recent relief projects which had been implemented by Caritas Albania following the floods of December 2010.

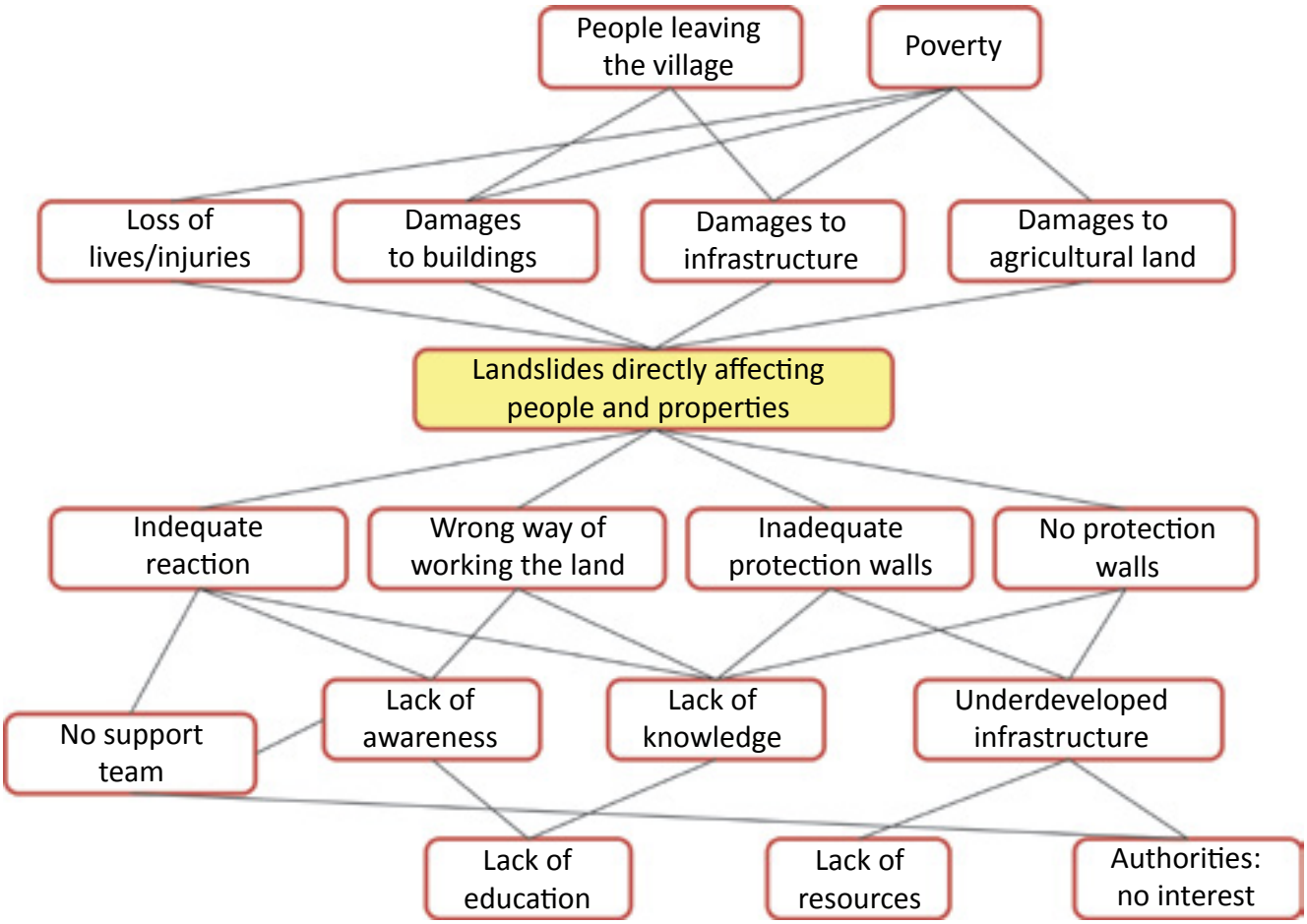
The village leaders, volunteers and the parish priest were already the main local actors during the floods in 2010, organizing relief programmes at a local level. The same team had contributed to the risk assessment by doing risk maps and interviews.

The group identified two central problems: in the case of floods, people were not evacuated in time and families lost their livestock (especially cows) during and after the floods. Both problems had been serious issues during the floods in 2010. For most people their animals were the most important flood-related concern, even more so than their houses, since animals were the most important source of income. So the group decided to analyse the problem of losing animals due to floods.



The problem tree was immediately used to define a solution strategy: The group decided that the community needed a stock of animal fodder, stored in a safe place. This stock of fodder would help animals to survive the period, when/if the villages were isolated by floods.

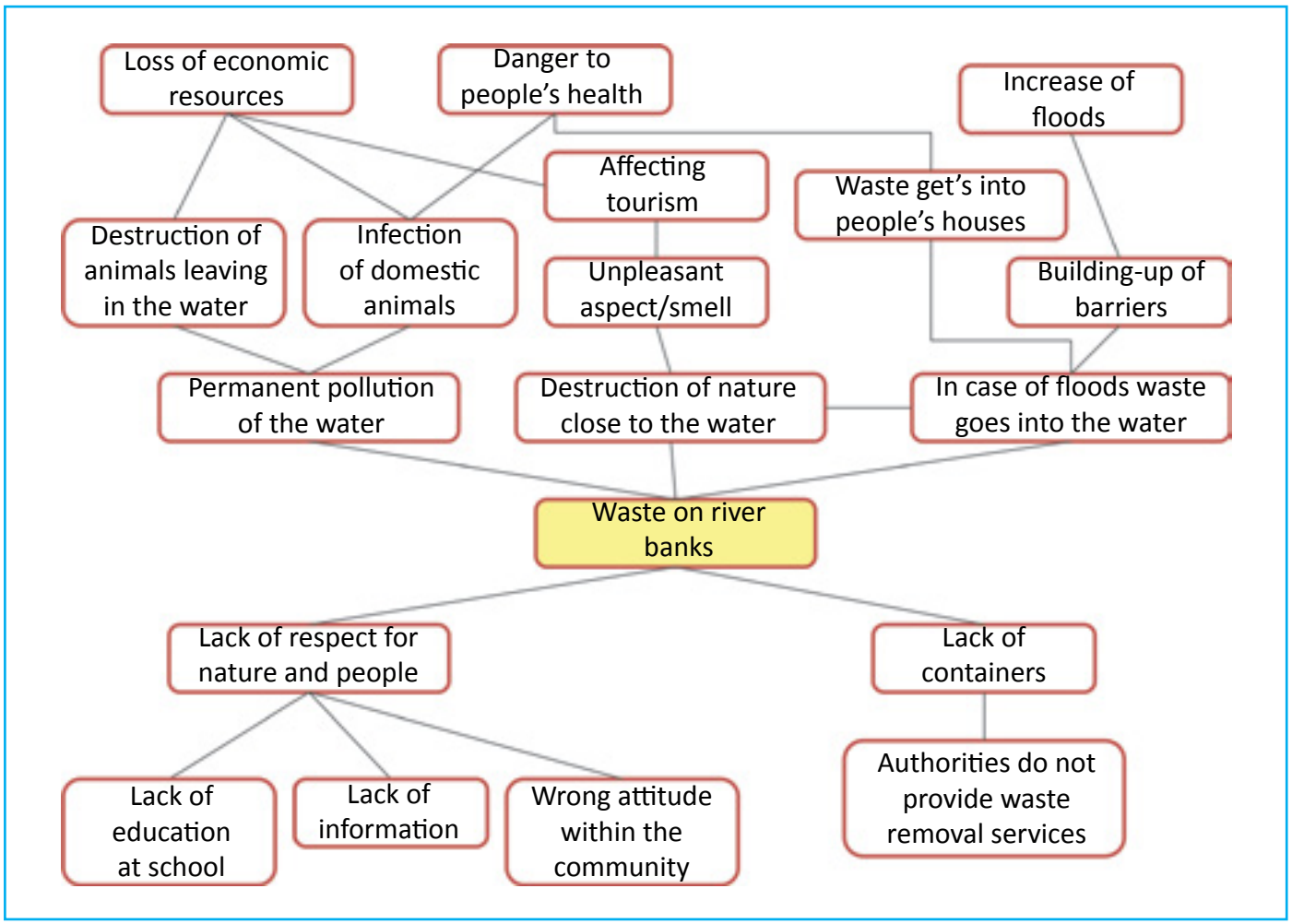
Praxis example: Skorobishte, Kosovo



Praxis example: Viseu de Sus

After analysing the quite complex situation in the Vaser settlement (see analysis of vulnerabilities - page 49), the volunteers from Viseu de Sus continued their work in a two-day workshop, which was organized at a Caritas Center in Baia Mare, about 100 kilometers from their hometown.

During the workshop the group decided to continue to work on a problem, which was within their reach and where they could find solutions. So they identified the problem of pollution, which includes waste materials just thrown on the river banks by the people living in the area. The group prepared the following problem tree:



From problem analysis to solutions

Active people (and we will assume the members of the local project teams are active people) often show a tendency to act fast. They want to do something and change things for the better. When they learn about a program or a method implemented successfully somewhere else, they get excited and want to start work at once.

"We have heard that they did a mock-drill in a neighbouring village. Let´s do the same here." This way of thinking and acting, although very common, does not lead to the desired results. Acting before thinking in detail about what actually has to be achieved may even be dangerous.

When the results that they expected are not immediately achieved, the initially excited volunteers will quickly get frustrated and lose faith in the fact that they can actually change something in their community.

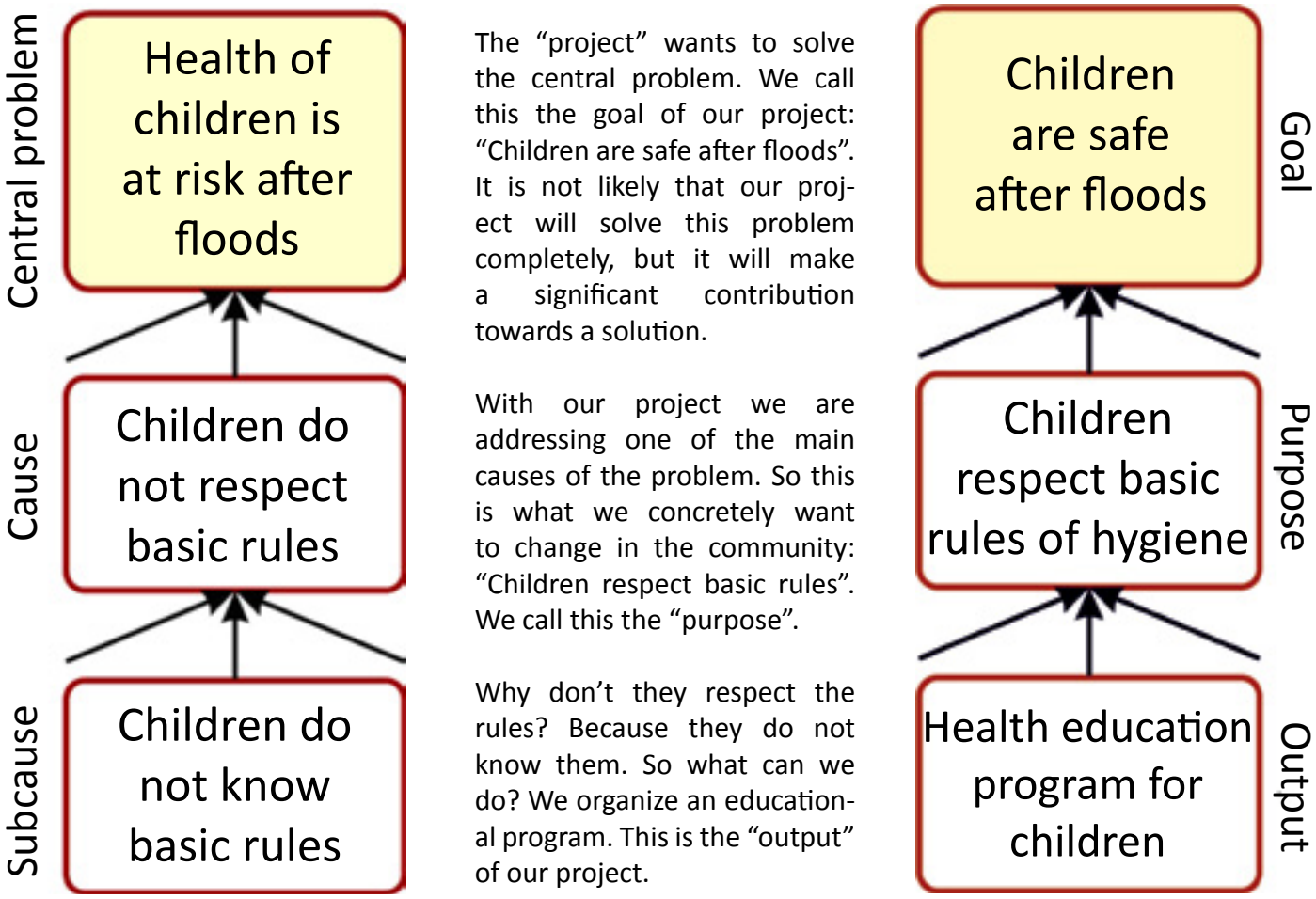
All the analysis work, that has been described in the previous chapters, and that will have been done by the local project group, is not just an "intellectual exercise". The results of this work are the basis on which to build for successful planning of further activities. Disaster risk reduction is about changing the situation of a community and making the lives of community members safer. By understanding

the hazards, the vulnerabilities and the causes of disaster risks, the local group is well equipped to identify efficient solutions which will contribute to an overall solution to the problems their community is facing. Planning means first thinking (before acting) in a structured way, and using all the available information in order to find the best solutions.

Planning starts by thinking about the central problem we want to solve. This problem has several main causes, so we have to identify those causes we want to address. Looking at the sub-causes of these issues, we will identify concrete things we can do. We can easily use our problem trees to get from a problem analysis to a solution. We may call this solution a project. Like all other phases in the community-based disaster risk reduction approach, the planning process is participatory.

Planning is based on the input of the risk assessment and analysis, including all the ideas of as many community members as possible. And, as much as possible, the planning itself is done by community members and not only the project coordinator. In many cases it will be necessary, in addition to working with the volunteer group, to also consult with other stakeholders.

In the example below the central problem is the fact that after a flood the health of children is in danger. This risk to the children's health has many aspects: playing in areas still under water and getting injured, infections due to contact with dirty water, drinking of polluted water, getting a cold due to high humidity, etc.). Of course there are many causes for these risks, but in our example we have selected just one "root" of the problem tree to look at.



The "project" wants to solve the central problem. We call this the goal of our project: "Children are safe after floods". It is not likely that our project will solve this problem completely, but it will make a significant contribution towards a solution.

With our project we are addressing one of the main causes of the problem. So this is what we concretely want to change in the community: "Children respect basic rules". We call this the "purpose".

Why don't they respect the rules? Because they do not know them. So what can we do? We organize an educational program. This is the "output" of our project.

Now you know exactly what you want to change in the community and what your strategy will be. As a last step you and your team will develop an action plan, which will show how you are going to realize your plan.

The following table can be used for doing the planning:

No.	Activity	Result	Responsible person	When	Necessary resources

Praxis example: Project planning in Dajc, Albania

The intervention plan for Dajc was developed during a meeting of the local project team (parish priest, village leaders, volunteers) with representatives of Caritas. The Caritas representatives acted as facilitators, helping to structure the ideas and putting the plan into written form. The intervention plan was based on the problem tree, which was created at the same time.The central problem, which the project addressed: during and after floods, people were losing their livestock, especially their cows.

Goal of the project: Families in the villages belonging to the Dajc Municipality would have the capacity to keep their animals safe(predominantly cows) when their village was flooded.
The problem-tree (see page 52) gives several reasons for this problem. One cause, on which the group decided to focus, was the lack of animal fodder available during the flood period. The following objective was formulated:

Objective: A stock of fodder, sufficient for the animals living in flood-prone areas of the Dajc Municipality to survive for one week, will be available during the flood season.

The team planned to set up a community managed storage space in the extension of the newly built church, which was situated on a hill. The fodder would be collected from the community. During the meeting three outputs were formulated:
Output 1: A safe storage facility for animal fodder will be set up in a room of the church in Pentar.
Output 2: There will be a transparent administration system for the storage space.
Output 3: At the beginning of the flooding season (November) there will be at least 10,000 kg of fodder in storage.

The group also developed a concrete activity plan:

No.	Activity	Result	Responsible person	When	Necessary resources
1.	**Set-up of storage**				
1.1	Changing of doors	Entrance of storage secured	Vasili (village leader)	Week 1	2 doors
1.2	New floor	Smooth concret floor	Vasili	Week 1	Construction materials
1.3	Installation of shelves	2 storage racks installed	Vasili	Week 2	Shelves
1.4	Cleaning of the room		Volunteers	Week 3	Cleaning materials
2.	**Administration**				
2.1	Meeting	Administrative system defined	Project team	Week 1	Meeting room
2.2	Drafting of rules	Written version of rules and principles	Lazri (village leader)	Week 3	
3.	**Supply of fodder**				
3.1	Distribution of leavelets	Every family receives a leafelet	Volunteers	Week 4	
3.2	Information in church	Population informed	Priest	Week 4	
3.3	Collection campaign	Fodder donations collected from families	Village leaders	Week 6	Transportation
3.4	Storing of fodder	Fodder stored in safe conditions	Vasili	Wekk 7	Sacks, insect repellent

5

PREVENTION
MITIGATION
PREPAREDNESS

PREVENTION – MITIGATION – PREPAREDNESS

How can we actually reduce the risk of disasters? Action has to be taken at many levels: at the community level, the regional and national levels and, sometimes, even at the international level - since disasters do not respect borders.

Our focus, in community based disaster risk reduction, is at the community level. This does not mean that all problems can be solved by the communities. Even if vulnerabilities often emerge at local levels, the dynamic pressures and underlying causes that are the roots of these vulnerabilities often exceed the area of influence of the local community and there is a need for action at much higher levels.
However, there are still many things that can be done at a local level to improve the situation. These things can either be part of a larger strategy involving the regional or national level or, if necessary, they can be mitigating actions that counter the negative impact of incorrect activities or total inaction from a higher level. The fact, that "the government" is not doing enough (as is often felt), must not be used as a reason for people to become desperate or as an excuse for giving up at the local level.

There are two important directions that actions can go in to reduce the risk of disasters: disaster prevention/ mitigation and disaster preparedness. These two directions are not alternatives, but complementary - both of them are needed.

Disaster prevention and mitigation

Disaster prevention means to take measures so that the disaster will not actually happen again. This means reducing vulnerability to zero which, in reality, seems quite difficult to achieve. We will never be able to control nature completely or to protect ourselves completely from hazards.

So instead of disaster prevention we often speak about disaster mitigation. Mitigation means to reduce the impact of the disaster, or "to make the disaster more moderate".

Some examples of disaster prevention/mitigation measures:

Constructed flood controls	Probably the best known mitigation measures. They include dykes and dams, flood control basins and other forms of flood defenses. Often local communities that are threatened by floods consider this kind of flood control the best (and only) solution. However, constructed flood controls may also cause certain problems. First of all, they are usually cost-intensive and necessary resources may not be available. It is also possible that flood controls which reduce the risk in one area will actually raise the risk in other areas further downstream.
Natural flood controls	These measures are based on natural resources. This includes, for example, reforestation. Forests have the capacity to retain large quantities of water and to prevent water from flowing down too fast. Trees planted along the banks of a river also provide protection against negative effects of floods. Floodplains have the capacity to retain large quantities of water.
Land use	There are always areas of higher and lower risk that will be affected by floods or other disasters. It is important to build villages and new settlements in safe places. This is a question of knowledge (safe and unsafe areas have to be identified) and of regulations. Strict rules on land use and the enforcement of these rules are important measures for reducing disaster risk.
Construction techniques	There are various techniques used to make houses and other constructions more resistant to different hazards: reinforcement techniques for buildings in areas of high seismic risk; flood-safe houses and basements; enforced roofs in areas exposed to high winds, etc.
"Non-structural earthquake mitigation"	Methods used inside buildings to make them safer in case of earthquakes. This includes the fixing of heavy objects, placing beds at safe places, etc.
Other forms of natural protection	For example: shelterbelts (or windbreaks) to protect agricultural land against drought and strong winds, trees protecting slopes from landslides, simple and natural drainage systems against soil erosion and landslides, etc.

Disaster preparedness:

While prevention and mitigation try to reduce the direct impact of the disaster, or to protect people/communities from a disaster even reaching them, preparedness measures focus on the moment of the disaster itself. Disaster preparedness increases the capacities of both people and communities to do the right thing at the moment of the disaster, and to have the necessary resources available to protect and save lives and properties.

Some examples of disaster preparedness measures:

Awareness	Awareness starts with knowing about the risks that people and their communities are prone to, but also learning the basic rules about how to react in certain dangerous situations. To raise awareness information campaigns, educational programs and training programs may be organized.
Early warning	Early warning systems inform people in time when a disaster may happen. This gives them a chance to prepare for the disaster or to leave dangerous places. An early warning system is effective only if people know how to react to the warning. Early warning is possible only for some kinds of hazards (there is no early warning for earthquakes) and the warning time depends very much on the type of the hazard.
Planning for emergency situations	Community and family emergency plans: these plans give clear directions about what to do in case of an emergency, including details about who is responsible for what and which resources are available. Emergency plans also include evacuation plans for the village or for certain areas or buildings (for example, a school). It is essential for the success of any emergency plan that all people involved be informed about the plan and know what they have to do. Practice drills may be very useful!
Emergency stocks	Stocks for emergency situations may be built up by families, but also by the community. Stocks are important in the case of isolation and they should contain everything necessary to satisfy the basic needs of the people for the period until external relief arrives.
Intervention capacities	Intervention capacities include well trained local teams, but also necessary equipment. First aid training for some people, especially in isolated settlements, can be crucial in emergency situations.

The following pages present some examples of disaster risk reduction programs implemented by local project teams in SE Europe:

Community based early warning systems[1]

Knowing in time that a disaster might happen makes a tremendous difference for the affected population. It saves lives and helps to reduce damages to property. The exact meaning of "in time" depends on the type of the hazard. While in the case of floods on big rivers it might be days, with other hazards like landslides or flash-floods it may only be minutes. But even then, the difference between watching your house get flooded from a nearby hillside and being trapped inside the house as it is flooded, is enormous.
There are also some hazards for which there are no early warning systems, like earthquakes.

A community based early warning system has four key elements:

1. Awareness of risks: As long as the population of a community is not aware of the risk their community faces, people will not be interested in any early warning system. After doing the risk assessment, clear information about the situation should be presented to the community. The different methods described in this chapter may be used to raise the awareness of the population.

2. Monitoring and warning: At least one person or a team from the village is responsible for permanent monitoring of the situation. Information about when a disaster might happen comes from two types of sources.

Outside sources: weather warnings, flood warnings from water administration, civil protection and other state authorities. The following website provides online weather-warnings for almost all European countries:
http://www.meteoalarm.eu/

Community sources: observation of the rivers and the amount of rainfall (in the community, but also upstream), communication with other communities.

3. Communication and dissemination: There also has to be a clear plan about how the disaster warnings can reach the entire population as quickly as possible.

Warnings can be transmitted using different locally available methods like church bells, sirens, hand mikes, flags and lights, or using communication from neighbor to neighbor, local radio, etc.

Usually different levels of warning are defined. It is important that everyone living in the community knows and understands the warning signs.

There are groups of people who need special attention, for example deaf people, who cannot hear warning sirens, or people who have mobility issues and will need assistance evacuating the area.

4. Response capacities: Every warning has to be followed by concrete action at individual and community levels, including evacuation, search and rescue activities, and relief for affected people. These response capacities should be prepared in advance and well known in the community before a disaster.

[1] *For additional information see: Mercy Corps and Practical Action (2010); Establishing Community Based Early Warning Systems.*

Example of warning levels and signals:

Warning level	Level 1 Alert, Standby "Ready"	Level 2 Preparation "Get set"	Level 3 Evacuation "Go"
Precondition	Heavy upstream rainfall (threshold value may vary as per location and watershed)	Water level in river increased by x meters (according to calculated threshold)	Water level in river increased by y meters (according to calculated threshold)
Warning message	High possibility of flood	Flood is inevitable within x hours	Flood coming any time
Acoustic signal	One blast of the siren, long pause (repeated)	Two consecutive blasts of the siren, long pause (repeated)	Continuous sound of the siren
Visual signal	Green flags/lights	Yellow flags/lights	Red flags/lights

To ensure proper operation of the warning system, it is not enough to just develop the warning system, it also has to be tested. Practice drills should be organized with the participation of the community.

Method: Family emergency plan

Method	Family Emergency Plan (template - see annex)
Situation in which the method can be used:	Communities which are at risk of quick onset disasters like flash floods, landslides, and earthquakes. The method will be used for those families living in risk-prone areas of the village/settlement.
Results (what will be changed by this method):	• Family members know what to do at the moment a disaster occurs. • Family members will be able to find each other more easily after an evacuation. • Evacuation can be organized efficiently.
Description:	Before working on family emergency plans, a detailed risk assessment has to be accomplished. This will provide information about risk zones, safe places and vulnerable families. There should also be a general community evacuation plan (which has to be in accordance with the plans prepared by the authorities). 1. Prepare/collect all the information needed to fill in the plan ● Description of risks in the community ● Local warning systems ● Evacuation plans ● General rules about what to do before leaving the house and what to take with you in case of an evacuation 2. Discussion with local authorities about the activities and exchange of information about what should be in the plan. 3. Train the volunteers ● Interactive methods of filling in the template ● Information for the plan – see point 1. 4. Plan family visits ● Prepare a list of all the families living in risk areas ● Prepare a schedule for the visits, for teams of two volunteers (20-30 min per visit) 5. Family-visits The families will be visited by teams of two volunteers. If possible, all family members should participate in the meetings. The plan and the cards are filled in by one of the family members after discussing each point of the plan. The volunteers should help the family to find the right answers, but not tell them directly what to write in the plan. If possible, a copy of the completed plan should be made (for example, photographed with a digital camera). Optional: An information campaign might be organized in the community to tell people about the importance of family emergency plans. This can be done by posters, announcements in public places (churches, public meeting halls), and by local mass media or schools.
Necessary resources:	• Printed family emergency plans (one copy/family) and cards (one per family member): see example in annex • Volunteers: necessary time of 20-30 minutes per family • Digital camera

Praxis example: Family plans and early warning in Busenje, Serbia

Busenje is a small village (of about 30 families) in the Banat region in Serbia, just a few kilometers away from the river Tamiš and the Romanian border. In the spring of 2005, after a period of heavy rainfall, a dyke broke in Romania. There was no communication between Romania and Serbia, and no early warning. People were surprised by the flood as they sat in their houses and they barely succeeded in escaping with what they had on them. Their houses and all their belongings were destroyed by the water.

When, six years later, the implementation of the DRR project started in Busenje and neighboring JašaTomić, it became obvious that many people were afraid of the danger of new floods. In a meeting with women from the village one participant declared, "In 2005 we were not afraid, since we did not know what could happen in a flood. Now we are very afraid, since we know exactly what will happen to us." Another woman said, "I will not survive this again. If floods come again, I will leave this place."

Although the risk of floods is much reduced today (an early warning system including communication mechanisms across the border is in place and dykes have been strengthened) there is still a need for better disaster preparedness for the families living in Busenje. The project team, including local volunteers and Caritas specialists, decided to develop individual Family Emergency Plans with all the families in Busenje. Making these plans proved to be not only a preparedness measure but also, by talking with the people of Busenje about the risks of floods and ways to deal with them and protect themselves, it helped them to feel safer and to reduce their fears. This had a positive impact for both future potential flood situations, and also on the current lives of the people in the village.

The Family Emergency Plans were discussed individually with every family. An experienced social worker from Caritas Zrenjanin, who had already worked in the village after the floods in 2005, visited the families. She was supported by a local volunteer, who was working in the social services department in Jaša Tomić.

"The discussions about the plans have been quite challenging", the Caritas social worker explained. "While talking about how to protect themselves, many bad memories were brought up by the people and we had to speak a lot about this. But in the end, we left the people feeling much safer. My recommendation is that in communities which have suffered a lot after a disaster, those making the family emergency plans with the people should be very well prepared. It is possible to do it with volunteers, but they need training and also guidance during the process."

The family emergency plans are just one part of the effort to make the community of Busenje more flood resistant. The volunteer group was equipped with a manual siren, which is kept in the community center in the village. One member of the group is responsible for the siren. In case of an approaching emergency situation, she will be informed directly by the local administration from Jaša Tomić. The siren will help her to warn the population of the village. All the families in the village have been informed by the volunteer group about the meaning of the siren. And they know what they have to do in case of a warning because they have prepared their own family emergency plans.

Method: Educational programs for children

In most cases children are left outside, or are even ignored, during and after disasters affecting their community. However, they can be important actors in the proper management of such situations if they are trained and have the required education.

The workbook "Herman" was developed by Caritas Romania in 2009. The booklet, "Getting Ready with Herman! Let's Learn Together about Natural Disasters," was designed to help children be prepared for the most common disasters affecting Romania and other regions in Southeastern Europe: floods, landslides, fires and earthquakes.

The information provided and the exercises given encourage children, as well as the parents and teachers who guide them through this manual, to participate actively in the preparation of their houses or their classrooms to manage a possible disaster.

In the disaster risk reduction project implemented by Caritas Romania in 2009, this manual was used in 20 communities across the country. Later, in 2011 as part of a regional DRR project with the participation of Caritas Albania, Bulgaria, Kosovo, Romania and Serbia, this manual was translated and used again. Currently versions are available in five languages: English, Albanian, Hungarian, Romanian and Serbian.

Herman at the School "Alexandru Borza" Ciumbrud, Romania

Ciumbrud is a village in Romania frequently affected by floods. In 2009, the village of Ciumbrud was one of the 20 communities in which a DRR project was implemented by Caritas Romania.One of the important activities implemented in this village was based on the manual "Getting Ready with Herman! Let's Learn Together about Natural Disasters". The program for preparing children about how to react in case of a disaster was attended by pupils from 5th to 8th form at the "Alexandru Borza" school in the village.

Before starting this activity, the project facilitator had several meetings with the school principal and a representative of the Inspectorate for Emergency Situations of the City Hall. During these meetings they discussed the methodology of working with the manual "Getting Ready with Herman! Let's Learn Together about Natural Disasters." During the program, the pupils participated in several workshops which took place during lessons with their class teacher. At the beginning, in order to capture their attention, an educational game was organized.

Pupils were divided into groups, each one of them standing in a circle. The project facilitator asked the pupils – one by one – to lean forward as far as they could, without touching each other. After all of them tried this they were asked to hold their hands and try again, one by one. The facilitator asked them when they could lean forward more - alone or with the group.

The conclusion of the game was that people should be supported in life, in good times, but especially in unpleasant, troubled, or serious situations and disasters.
After an introduction to the subject of disaster risk reduction and the presentation of the concepts, the pupils were divided into several groups. They used different methods (mime, role play) to go through the manual in a systematic way. For some subjects, the pupils even had to do some homework. Because Ciumbrud village had recently been affected by flooding pupils were asked to prepare a portfolio with pictures and newspaper reports on this subject.

They were also asked to talk to their parents about existing hazards in the community and to present practical ideas for reducing the risk of disasters in the area.
The program ended with testing and giving awards to the pupils who were most actively involved in the whole process of preparation, prevention and disaster risk reduction for the community of Ciumbrud.

The Herman Show in Prnjavor - Serbia

Although parts of the village Prnjavor were flooded recently (in 2010) and this situation had the potential to be repeated in the future, there was little awareness among the population about the risk of floods and how people could protect themselves better.After the risk assessment the volunteer group, formed of students from a secondary school and two of their teachers, decided to organize an awareness and information campaign for the local primary school.

The first step of the campaign was an action day at the school. The volunteers prepared a show based on the booklet Herman. During the show the volunteers gave a presentation about natural disasters using PowerPoint slides. After this introduction Herman himself came on stage. Herman the hermit crab, played by one of the volunteers, told the children his story. He had to rebuild his house again and again when it was destroyed by different natural disasters until he finally succeeded in constructing a real disaster proof house. In the last part of the show some of the children were invited to participate in a quiz game. They were given prizes for answering questions about natural disasters.
At the end of the show, all the children who participated received a copy of the Herman booklet and a template for a Family Emergency Plan. In the days after the show, the pupils continued to learn about disasters and how to protect themselves.

The volunteers performed their show four times, giving all 450 pupils (1st to 8th form) studying in the primary school in Prnjavor the chance to participate and to learn more about disasters. By doing this, they not only informed a large number of children, but were also able to reach their families – which constituted a large and important part of the village population.

Harvest Festival in Buruienesti

Buruienesti is a village in eastern Romania, close to the river Siret. In summer 2008 the village was seriously flooded. About 300 houses were destroyed and the agricultural land of many families was affected. Caritas supported the population of the village with humanitarian aid (food, hygienic materials) and with an agricultural program where families received packages with seeds, fertilizer and tools.

In 2009 Caritas started the implementation of a disaster risk reduction program. A group of young people from the Catholic parish became the local project team. They identified two important problems: the lack of information about the risks the community was facing, and the lack of solidarity and collaboration between the community members during emergency situations.

On the occasion of the first harvest after the floods the project team decided to organize a harvest festival. Their idea was to bring people together to develop their community spirit and sense of solidarity, but also to inform them about disaster risks and to discuss possible actions to improve the situation. The event took place on a Sunday in October. The project team invited all the families from the village and asked those who had a rich harvest to bring some of their produce to donate to the poor of the community.

The festivity began with a holy mass to give thanks for the harvest and the recovery after the flood. After the mass people were asked to remain in the church. The group presented the results of the risk assessment and showed the risk map drawn by some of the group members. The participants were invited to put forward their own suggestions on how to improve the situation in the community.

The festival continued with an artistic program, dancing, music and a common meal for all participants.
PS: One year after the harvest festival (and two years after the first floods), Buruienesti was flooded again. This time there was a strong response by the community. For example, young people helped to clean out the homes of elderly community members who were affected by the flood, and a team of volunteers cleaned and disinfected more than 100 wells that were contaminated by the floods.

First aid training in Skorobishte, Kosovo

Since landslides are a constant threat to the village of Skorobishte and, when a disaster occurs, access to the village by rescue units is very difficult, it is essential that people know how to give basic first aid until rescue teams can arrive.

The project facilitator contracted a specialist from the Red Cross to provide a first aid course for the group of volunteers. The course was attended by 14 volunteers.

This course trained participants in basic life-saving techniques as well as providing basic first aid until qualified help (ambulances) arrived. The volunteers who completed the basic first aid course are able to provide first aid in case of:

- Loss of consciousness
- Cardiopulmonary arrest
- Bleeding
- Dislocations, sprains, fractures
- Burns
- Drowning or choking on a foreign body

The basic first aid course ended with an exam, after which all participants received a certificate that confirmed that they were trained to provide basic first aid. At the end of the project two first aid kits were procured and stored by one of the team members.

The content of first aid kit:

- *2 X bottle antiseptic solution 500ml*
- *5 X pair protective gloves, sterile*
- *2 X box of 10 assorted plasters*
- *2 X adhesive plaster roll 2.5cm X 5 m*
- *1 X tubular net gauze*
- *10 X pack of sterile compress 10 X 10 cm*
- *2 X pack of sterile compress 18 X 40 cm*
- *1 X pack of cotton wool*
- *1 X mask with face shield*
- *1 X pair of scissors cm 14.5*
- *2 X sterile forceps*
- *3 X haemostatic lancet*
- *1 X sphygmomanometer + stethoscope*
- *2 X sterile blanket 40 X 60 cm*
- *2 X pack of instant ice, single use*
- *1 X digital thermometer*
- *2 X trash bag*
- *1 X first aid multilingual booklet*
- *1 X guidance leaflet*
- *1 X irrigating solution 500 ml*

Landslide consultancy in Skorobishte, Kosovo

Another problem the community of Skorobishte faces is the inadequate construction of houses in an area with a high risk of landslides. Since the village is situated on a steep slope, the houses are costructed on excavated terraces which are protected by high walls. Unfortunately, community members do not have sufficient knowledge and resources to build safe houses in such conditions. The group of community volunteers from the regional DRR project, together with the project facilitator from Caritas Kosovo, considered the presence of a specialist who could provide technical building information, especially to families who have houses built in the risk area, very important.

The project facilitator contacted a specialist in geography/geology to work with adults and families from Skorobishte. The specialist provided consultancy to 20 families in the community. Every time he went into the field he was accompanied by Mr. Isa, a local volunteer and respected person from the community who helped facilitate access to families.

At the end of the consultancy program the group of volunteers, along with the project facilitator and a few adults from the community, distributed a brochure about landslides that was developed by the group who worked with the specialist.

Forest shelterbelts in Ostrov, Romania

Ostrov is a village in southern Romania, close to the Danube river. About 600 people lost their homes during the flood of 2006. Most of the affected houses were built in the late 1960s, after the construction of the Danube dyke on the floodplains. Up until that period the area was not considered a habitable zone. After the flood in 2006, caused directly by the collapse of the dyke, the authorities decided not to rebuild the houses on the original land so they made land available for two new settlements in a safe place close to the village. In the rehabilitation process after these floods, Caritas had contributed to the reconstruction of the houses with building materials and technical advice.

In 2009, the community of Ostrov village was selected to participate in a DRR project. During this project, two groups of community volunteers were formed. One was composed of children from the community school while the other consisted of adults, including the local Orthodox priest. After the implementation of risk assessment activities, the two groups concluded that their village was now safe from floods (it had moved to a much higher location), but unfortunately there was still a risk of disaster in the village. After doing interviews in the community it had emerged that the big issue in the village of Ostrov was now drought and strong winds.

After discussions with the local authorities (mayor and deputy mayor), the two groups of community volunteers were able to convince them of the need and usefulness of forest shelterbelts to protect the village and agricultural land. Shelterbelts are rows of 2 to 5 lines of trees, planted in a rectangular grid pattern or in strips within and on the periphery of farmland and villages and they act as windbreaks. Shelterbelts help reduce natural hazards including sandstorms, wind erosion, shifting sand, droughts and frost. They also improve the microclimate (reduced temperature, wind speed, soil water loss and excessive wind-induced transpiration) and create more favorable conditions for crop production.

At the beginning of the project a first area was identified in which there was a need and where tree seedlings could be planted, and where the trees would later form a protection curtain. The project facilitator and the community volunteers had discussions with several specialists to determine exactly which sort of trees were the most suitable for the soil and climatic conditions in Ostrov village. Then they bought 2000 Black Locust saplings to be planted in the identified area.

The tree planting in Ostrov was attended by more than 35 adults from the community, who were supported and coordinated by the community priest and local authorities (mayor and deputy mayor). During the planting they were also joined by pupils from the local primary school who were accompanied by five teachers. All the pupils came prepared with tools (hatchets, hoes, shovels, rakes) and plastic buckets for watering the seedlings. After cleaning, raking and planting the entire area, the city hall provided a water tank so that they could water all the saplings. At the end of the activity, all the students who had participated in the planting received a sandwich and refreshments.

Apart from the protection that the forest curtain will provide in the future, this action is a successful model because it aroused the interest of other community members to plant forest curtains for protection in other parts of the village that were exposed to drought and the strong winds specific to this area.

Intervention for cleaning wells in Buruienesti , Romania

With a recent history of floods affecting the Buruienesti community, the team of volunteers from the DRR project implemented by Caritas in 2009 identified this as the biggest problem facing the community.
Most community members got drinking water from the wells in their own courtyards. Unfortunately, after floods occurred, these wells could not be used because they were full of dirt and mud, and the local authorities did not have the capacity or time to clean them.

Therefore, the group of volunteers, together with Caritas, considered it necessary to buy two motorized pumps for cleaning the wells. The members of the volunteer group were prepared and trained to use the pumps to clean the wells more efficiently after a flood.

The positive results from this action were observed in the summer of 2010, when the village of Buruienesti was again affected by floods and had their first chance to clean and disinfect the wells using their new equipment. Using the two pumps a team from Caritas and the group of village volunteers cleaned about 200 wells that had been affected by the floods. So that people would have quicker access to clean drinking water, Caritas and the group of volunteers distributed chlorine tablets to disinfect the water from the cleaned wells, as well as the instructions necessary for using the tablets. A few days after flooding, the Buruienesti community once again had clean drinking water from their household wells.

Information campaign in Dolno Ezerovo, Bulgaria

Since floods were a constant risk in the village of Dolno Ezerovo, it was essential for the population to know how to react if/when the village flooded again.

The volunteers, pupils from the 6th class at the local school, decided to prepare their own informative leaflet. Together with the project coordinator, they studied publications and informative materials about floods. Then they wrote down some simple rules, things which they considered most important. The design of the leaflet was done by the volunteers and the coordinator. The leaflets were produced in a local print shop.

The volunteers distributed the leaflets to the other pupils at school, as well as to all the families living in areas at risk of being flooded.


Каритас Как да реагирате при наводнение?

Как да действаме при реална опасност от наводнение:
- Запазете спокойствие и бъдете търпеливи
- Изключете газта и електричеството
- При невъзможност за напускане на сградата, заемете най-горните етажи или покрива
- Ако се намирате близо до корито на пълноводна река или дере е необходимо незабавно да се отдалечите от тях и да се придвижите към най-близкото възвишение
- При поройни дъждове не заставайте под мостове,подлези, надлези и други съоръжения, високата вода може да ви отнесе

Трябва да знаете, че:

1. Влизането във водата на наводнените райони е опасно защото:
- Вие може да се удавите
- Можете да бъдете наранени от остри предмети под водата
- На лице е опасност от инфекции

2. Ако трябва да се пресече наводнена площ, трябва:
- Да не правете опити за пресичане на разливи и потоци
- Да се защитите от пряк контакт с вода и обекти с (гумени ботуши)
- Да познавате района добре, за да сте сигурни, че във водата няма електричество

Брошурата е изработена с помощта на доброволци от VI А клас от ОУ „Христо Ботев" гр. Бургас кв. „Долно Езерово" в рамките на проект „Намаляване риска от бедствия в Югоизточна Европа"


Каритас Как да реагирате при наводнение?

3. Трябва да се пие вода само от надеждни източници:
- Защото нерафинирани източници могат да бъдат заразени и замърсени
- От река и водни течения не е добре да се пие
- Бутилираната вода е най-безопасна

4. Измиването на ръцете е важна мярка за хигиена:
- След като докоснете предмет, който е бил в контакт с водата от наводнението

Съхранявайте запаси в дома си които да са достатъчни поне за три дни. Тези запаси трябва да съдържат:
- Вода за три дни и храна, които не се развалят бързо
- По един комплект дрехи и обувки принадлежности на човек, по едно одеяло или спален чувал
- Комплект за първа помощ, лекарства без рецепта и медикаменти по предписание
- Уреди за извънредни ситуации: радиоапарат, фенерче и достатъчно резервни батерии
- Резервни ключове за колата пари в брой и евентуално кредитна карта
- Хигиенни материали

Брошурата е изработена с помощта на доброволци от VI А клас от ОУ „Христо Ботев" гр. Бургас кв. „Долно Езерово" в рамките на проект „Намаляване риска от бедствия в Югоизточна Европа"

Translation:
HOW TO REACT IN CASE OF FLOODS?

HOW TO ACT IN CASE OF REAL HAZARD OF FLOOD?

- Keep yourself calm and be patient
- Turn off gas and electric supplies
- If you cannot leave the building, go to higher floors in the building
- If you are close to a riverbed or a deep gully, it is necessary to move immediately away from there and up the nearest hill
- In torrential rain do not stand under bridges, underpasses, overpasses or other structures, as high water may sweep you away

YOU HAVE TO KNOW THAT:

1. Entering the water of the flooded areas is dangerous because:
- You can drown
- You may be injured by sharp objects underwater
- There is a danger of infection

2. If you have to cross a flooded area:
- Do not attempt to cross flooded streams and enter the river
- Protect yourself from direct contact with the water and objects (rubber boots)
- You should know the area well to make sure that there are no hidden electric cables

3. Drink water only from trusted sources:
- Untreated sources of water may be contaminated and polluted
- Water from the river and waterways is not safe to drink
- Bottled water is safest

4. Washing hands is an important measure for hygiene:
- Once you touch an object that has been in contact flood water

Keep supplies in your home that will be sufficient for at least three days. These stocks should contain:

- Water for three days and food that does not spoil quickly
- One set of clothes and shoes/accessories for every person, one blanket or sleeping bag each
- First aid kit, with prescription and non-prescription medicine
- Emergency radio, flashlight and enough spare batteries
- Spare car keys, cash and credit card
- Hygienic materials

Community based emergency storehouse - Dajc, Albania

The risk assessment and the problem tree analysis done by the volunteer group from Dajc (see page 52) gave a clear picture of the situation: in case of floods there was a high risk of losing domestic animals, especially cows, which were the principal source of income for the population of Dajc. One of the main reasons was the lack of animal fodder during and after floods.

The group also identified a possible solution. Emergency warehouses were to be located at safe and accessible places. In a meeting with Father Marjan and Caritas, the team decided to start with a pilot project. Father Marjan promised to make available storage rooms in the newly constructed church of Pentar, one of the villages of the Dajc Municipality. Pentar is situated on a hill and therefore protected from flooding.

The storehouse would provide animal fodder and also food for the people remaining in the villages during a flood, at least for the period that the region was isolated and until supplies could reach the villagers. The fodder and the food to be stored in the storehouse would be donated by the population of the villages and local businesses.

In several meetings the local group responsible for the storehouse (village leaders, volunteers, chaired by Father Marjan) worked on the concrete details about the mode of operation of the warehouse. First of all, the storage rooms had to be adapted for their new use. The two rooms were equipped with new doors and some shelves.

For the administration of the warehouse, the group developed instruments (registry of donation, registry of distribution) and written rules, explaining the responsibilities and the procedures for collection and distribution of the goods. Every village leader was responsible in his village for the collection of fodder, food and also money. All contributions were registered in a written registry. A part of the donated money would be used to pay for the transportation of the goods to the warehouse.

In the case of a flood, the group would make decisions about how to use the goods from the storehouse. Village leaders would provide lists of the families most in need. The group would approve beneficiary families and allocate quantities of fodder and food. Every village leader would be responsible for the distribution in his village.

In the case that there are no floods during the winter months, the group decided what to do with the goods in the storehouse. Food would be distributed to poor families in the villages. Animal fodder would be sold. The group, together with Father Marian, would be responsible for the administration of the funds. A part of the money would be used for hardship cases in the community and another part would be kept as an emergency fund for the next flood season. During the next summer and autumn, collection of goods would start again.

Soon after the group started to work on the procedures the storage was ready to use. The population was informed about the new storehouse and how it would work. Father Marjan talked about the storehouse at church, the village leaders and volunteers informed people in their villages.

After this introduction the village leaders and volunteers started to visit all the families in the villages belonging to the Dajc municipality. The response of the people, Christian and Muslim, exceeded expectations. About 80% of the families contributed, most of them with one or more bags of maize, and others with money.

"When walking through one of the villages, a handicapped man came up to us and asked why we had not gone to his house to ask for a contribution," one of the village leaders explained. "We had been convinced that he actually needed our support, but he insisted on contributing and gave us some money."

When the collection in the villages was finished, the storage space was filled with 12,000 kg of maize and a large quantity of staple foods. In addition, the team had collected around €3,000. These resources would be essential to help people from Dajc survive future floods.

Fortunately, there was no flooding in Dajc in the winter after the storehouse was established. As determined by the rules, the group gave support to the poorest families in the community with food packages and also contributed to expensive medical treatments for two young people. What first started off as a flood preparation project has become a self-sustained, community-managed social programme.

"I am convinced that next year people from our community will contribute even more," said Father Marjan. "They received a lot of support during the floods and they understood that it was now their turn to care for their own future, as well as for those most in need."

Mock drill in the "Hristo Botev" School in Dolno Ezerovo, Bulgaria

The village Dolno Ezerovo is frequently affected by floods, caused by a small river which passes through the village. In the village the river runs through a (too small) subsurface channel. In the case of heavy rainfalls, the channel gets blocked by debris and water floods parts of the village.

The local "Hristo Botev" school is located just a few meters from the channel. In February 2010, floods affected the village and the court of the school was under water. Civil protection from nearby Burgas organized and supported the evacuation of the pupils. Parents had been very concerned about this situation and were aware that a similar situation could occur again. So the mothers who were members of the local DRR volunteer group suggested work on an evacuation plan for the school.

After discussions with the management of the school and representatives of the Burgas civil protection department ("Fire Safety and Protection of Population Service"), both institutions agreed to collaborate on the project.

A working group was formed composed of representatives from Caritas, the school management and the civil protection department. The group decided to work out a plan, and also to practice the plan with a drill.

In two sessions the group developed a plan that covered three aspects:

- *The organization of an evacuation: the responsibilities of the teachers, rules, meeting places, etc.*
- *Training and information of the staff and the pupils*
- *Organization of a practice drill*

On November 8th, 2011 the long-awaited moment arrived. All pupils participated in short lessons about school security and evacuation. Everybody was prepared and at 12 o'clock the school bell gave the alarm signal. Within three minutes, every pupil (more than 400 in total) and teacher succeeded in leaving the building. The classes had formed rows of two and left the school in a well-organized manner - fast, but without running or panic. Some of the teachers were assigned to secure dangerous places like staircases and corners.

All of the classes lined-up outside the building. The exercise was monitored by a representative of the Burgas civil protection department. At the end of the drill, the pupils had a chance to participate in a demonstration about how to extinguish a fire.

6 INSTEAD OF AN EPILOGUE

INSTEAD OF AN EPILOGUE

In March 2013 heavy rainfalls started in Albania and neighboring countries. After a few days the first floods started in different places around the country. When the rainfall continued, the reservoirs at the three hydroelectric power stations on the river Drin in the northern Albanian mountains started to fill up. Now an all too well known scenario started to unfold: On March 15th, the security gates of the dams had to be opened to reduce the risk of a dam failure. Downstream on the river, the situation from 2010 and 2011 was repeated. The outskirts of the city of Shkodra and several villages - most of them belonging to the municipality of Dajc, were flooded.

In Dajc alone more than a hundred families found their houses surrounded by water. Many of them had to leave their homes and they found shelter in places provided by the local parish. This was the third time in less than four years that the community had been flooded.

But one thing had changed since the last flood. The community of Dajc had implemented a community-based disaster risk reduction project. Volunteers had drawn risk maps, children had participated in educational programs about disaster risks, and the most important result from the project was that the community had succeeded in creating emergency storage for animal fodder and food.

Father Marjan, the priest from the local Catholic parish and coordinator of the local volunteer group explained the situation. *"In the first days after the floods we were almost completely dependent on ourselves. There was hardly any support from outside. Neither the government nor any other organizations were able to bring us help in this situation."* The village leaders and the volunteer team started to act immediately. They helped people to leave their houses and to evacuate their most important belongings.

The risk maps, prepared during the DRR project, provided them with important information about the most vulnerable households and people.

As always in the case of floods in Dajc, fodder for livestock was the main concern for the population. People brought their animals, especially cows, to safe places, but then they had nothing to feed them.

"We organized a meeting with the village leaders and prepared a list of 110 families who were most in need of help. We had about 6,000 kg of maize and some stocks of food in the storage, everything donated by the people of Dajc last autumn. We decided to distribute everything to those families." Father Marjan informed the population in church about the plan. Volunteers transported the fodder to the selected families. The parish of Dajc and its churches became temporary shelters for those who had to leave their houses.

"It was not so much what we had in our storage, but that we could use everything very efficiently. When the need was greatest - in the moments after the flood - we successfully helped ourselves. People were very happy about this."

A few days later support from outside reached the community of Dajc. Caritas and other organisations helped Dajc to recover from the flood. Disaster risk reduction was an important subject again.

Father Marjan confirmed his intention to continue with DRR activities. *"People will be even more motivated to participate in the program. Children have asked me already, when they will have lessons with Herman again and learn more about how to protect themselves."*

The example of Dajc shows that even a small pilot project with very limited resources is not just an exercise in doing a project. The capacity of the community of Dajc to cope with emergency situations, as well as that of all the other communities participating in the Caritas DRR projects, has developed in real terms. The volunteer teams in Dajc and the resources created in the village were able to succeed when presented with an actual disaster.

Hopefully not all communities participating in DRR projects will be affected by disasters again in the future and it seems that many of the capacities that have been created will never be used. But saying that all the work there has been done in vain is much too short sighted a perception. The mobilization of at least one part of the population, and the awareness that has been created by the project, are important steps in the process of community development.

Community-based disaster risk reduction is not an isolated project, it is part of the development the whole community. Nothing is lost, even if the next flood never comes.

As mentioned already, at the beginning of this publication, the region of Southeastern Europe is very susceptible to disasters.

In response local Caritas networks have made first steps towards community-based disaster risk reduction and this approach has already proven its effectiveness. In any case, the concept is rather new in the region and much more work has to be done.

Therefore the existing projects should continue and be extended. Additionally, it would be useful to include components of community-based DRR in recovery and rehabilitation programs which will be implemented by Caritas organisations in the region after future disasters. And, finally, it will be important in the future that not only Caritas, but also other organizations and public structures at all levels, join their efforts to make Southeastern Europe a safer place to live than it is at the moment.

Annex: Model Family Plan

OUR PLAN

Being prepared for emergencies

Family:

City:

Risks in our community

How do we learn that a disaster will happen?

Fill in the following information about all family members. Take care that the information is allways updated.

Name:	Name:
Date of birth:	Date of birth:
Special needs:	Special needs:
Name:	Name:
Date of birth:	Date of birth:
Special needs:	Special needs:
Name:	Name:
Date of birth:	Date of birth:
Special needs:	Special needs:

Meeting place in emergency situations:

Don´t forget: **112**

Single European emergency call number

Published by the Caritas Romania Confederation "Disaster Risk Reduction in Southeastern Europe"

Places where we spend most of our time:

Home

Address:

Phone:

Workplace

Address:

Phone:

School

Address:

Phone:

Workplace

Address:

Phone:

School

Address:

Phone:

Other frequently visited place

Address:

Phone:

In case of an evacuation...

What to do before leaving the house?

What to take with us?

Where do we go?

Out-of-town contact person:

Name:

Address:

Phone:

Mobil:

Our emergency kit (necessary supplies for some days)

Person in charge:

Verification:

Revision of the plan:

Person in charge:

Date:

Materials published by Caritas Romania and mentioned in the publication

- ***Getting ready with Herman – Let´s learn together about natural disasters***
  A workbook for children about disasters and disaster preparedness. The book offers explanations, rules how to react in case of a disaster and many practical exercises.
  (http://www.caritas.org.ro/CARITASfiles/DRRBook/Hermaneng.pdf)
  On request the booklet is available also in Albanian, Hungarian, Romanian and Serbian language.

- ***Our Plan – Being prepared for emergencies***
  Template for a family emergency plan and personal contact cards.
  (http://www.caritas.org.ro/CARITASfiles/DRRBook/Family_Plan_and_Card.pdf)
  On request the document is available also in Albanian, Bulgarian, Hungarian, Romanian and Serbian language.

- ***Making our community a safer place***
  Materials for a training program for local volunteers: Power Point Presentation and Trainer Handbook.
  (http://www.caritas.org.ro/ CARITASfiles/DRRBook/Trainingvolunteers.ppt)
  (http://www.caritas.org.ro/CARITASfiles/DRRBook/Trainingforvolunteershandbook.pdf)

Literature

- Abarquez, I and Murshed, Z (2004), Community-Based Disaster Risk Management. Field Practitioners' Handbook. ADPC. Thailand. (http://www.adpc.net/pdr-sea/publications/12handbk.pdf)

- Gauthamadas, U (2005); Disaster Psychosocial Response. Handbook for Community Counselor Trainers. ADEPT. India

- Hansford, B (2011). Reducing risk of disaster in our community. Tearfund. United Kingdom (http://tilz.tearfund.org/~/media/Files/TILZ/Publications/ROOTS/English/Disaster/ROOTS%209%20Reducing%20risk%20of%20disaster.pdf)

- IIRR, Cordaid (2007). Building Resilient Communities. A Training Manual on Community-Managed Disaster Risk Reduction. Philippines.

- ISDR (2008). South Eastern Europe disaster risk mitigation and adaptation initiative: risk assessment for South Eastern Europe. Desk study review. Geneva.
  (http://www.preventionweb.net/english/professional/publications/v.php?id=1741)

- Mercy Corps and Practical Action (2010); Establishing Community Based Early Warning System. Practitioner´s Handbook. Nepal.
  (http://www.preventionweb.net/files/19893_19866cbewspractionershandbooktraini.pdf)

- Trocaire. Disaster risk reduction: Learning for Livelihoods Series No. 1. Ireland.
  (http://www.trocaire.org/resources/policy-resource/disaster-risk-reduction-learning-livelihoods-series-no-1)

- Wisner, B, Blaikie, P, Cannon, T, Davis, I (2003); At Risk: Natural Hazards, People's Vulnerability and Disasters. Routledge. United Kingdom.

- World Health Organization, War Trauma Foundation and World Vision International (2011). Psychological first aid: Guide for field workers. WHO. Geneva.
  (http://whqlibdoc.who.int/publications/2011/9789241548205_eng.pdf)

CARITAS ROMANIA CONFEDERATION

Washington Street, no 38, 1st district,
Bucharest, Romania
Telephone number: +40 21 230 40 13
caritas@caritas.org.ro
www.caritas.org.ro
http://www.facebook.com/CaritasRomania

You can support Caritas Romania through a donation
UniCredit Tiriac Bank - Sucursala Charles de Gaulle
ROL RO46BACX0000000030117310
EUR RO67BACX0000000030117320, SWIFT: BACXROBU