CONCEPT PAPER

Lessons learned and best practices

Project: Building resilience to disaster risk through emergency preparedness and disaster risk management in rural Maya communities in the Departments of Baja Verapaz, Quetzaltenango and Quiché/Guatemala

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Acknowledgements

This publication is based on experiences gained during the project "Building resilience to disaster risk through emergency preparedness and disaster risk management in rural Maya communities in the Departments of Baja Verapaz, Quetzaltenango and Quiché/Guatemala" which took place in 2015-2017 in Guatemala. To this end, a consortium was formed in Germany to join forces with the Catholic organisations of Caritas Germany and Protestant Diakonie Katastrophenhilfe. A specialised consulting firm (adelphi) based in Berlin was contracted to support the consortium. The consortium from Germany was responsible for the management and compilation of all project material for this publication.

Caritas Quiché in Santa Cruz del Quiché, Caritas Los Altos in Quetzaltenango and ASECSA in Baja Verapaz are the local partners in Guatemala working directly with the communities. Each of these organisations has contributed to the preparation of this publication by sharing their experiences over these two years. In the final systematization workshop of the project, several representatives from local entities participated: the Local Coordinator for Disaster Reduction (COLRED), the Municipal Coordinator for Disaster Reduction (COMRED) as well as the National Coordinator for Disaster Reduction (CONRED) among others. We want to take this opportunity to thank them all for their contributions that made the publication of this document possible.

In cooperation with: adelphi

With the support of:

Abbreviations

AA	Auswärtiges Amt - Federal Ministry of Foreign Affairs of Germany
ASECSA	Asociación de Servicios Comunitarios de Salud
CAPs	Community Action Plans
CENACIDE	National Center for Information and Research on Development and Disasters
COCIGER	Citizen Convergence for Risk Management
COCODES	Community Development Councils
CODEDE	Departmental Development Council
CODRED	Departmental Coordinator for Disaster Reduction
COLRED	Local Coordinator for Disaster Reduction
COMUSAN	Municipal Commission for Food and Nutritional Security
COMRED	Municipal Coordinator for Disaster Reduction
CONRED	National Coordinator for Disaster Reduction
CORRED	Regional Coordinator for Disaster Reduction
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EPRPs	Emergency Response and Preparedness Plans
EWS	Early Warning Systems
EU	European Union
IPCC	Intergovernmental Panel on Climate Change
INSIVUMEH	National Institute of Seismology, Vulcanology, Meteorology and Hydrology
MOPs	Microprojects
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PDM	Municipal Development Plan
PLR	Local Response Plans
RA	Risk Analysis
SEGEPLAN	Secretariat for Planning and Programming of the Presidency
SESAN	Secretary of Food and Nutritional Security
SWOT	Strengths, Weaknesses, Opportunities, and Threats
WFP	World Food Programme

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Cover: Women in rural area in Guatemala working on the communal risk assessment.
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INTRODUCTION

Community in Quiché, realisation of a simulation in the villages for an earthquake.

The Sendai Framework for Disaster Risk Reduction 2015-2030 adopted at the third United Nations World Conference in Sendai, Japan, on 18 March 2015 aims to substantially reduce disaster risk and disaster losses. In addition, the Fifth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC) mentions and highlights the significant risks associated with climate change. Within the framework of the project presented in this publication, efforts are being made to strengthen community and institutional resilience, with the aim of increasing capacities and reducing the population's vulnerability to multi-hazard risks.

But how can we ensure that our disaster risk reduction projects are successful?

This publication compiles relevant information for disaster risk reduction projects in Central America in the form of lessons learned and best practices, with the aim of benefiting projects to be designed in the coming years.
The main challenges and successes of the project "Building resilience to disaster risk through emergency preparedness and disaster risk management in rural Maya communities in the Departments of Baja Verapaz, Quetzaltenango and Quiché/Guatemala" are presented by linking the theory framed in the Sendai Framework with the practice embodied in the project's intervention strategies. In this way, this publication would like to highlight the way in which this project supports the implementation of the Sendai Framework via its local actions in Guatemala.

Team work in the systematisation workshop in Antigua.

Intervention strategies framed in the Sendai Framework

The following section analyses the links between the priorities of the Sendai Framework and the intervention strategies of the project.

- Priority 1: Understanding disaster risk.
- Priority 2: Strengthening disaster risk governance to manage disaster risk.
- Priority 3: Investing in disaster risk reduction for resilience.
- Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

The four action priorities have been considered in the framework of this project. For the first priority, particular attention was paid to explaining disaster risk management and community risk analysis terminology. According to the Sendai Framework, disaster risk management policies and practices should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of people and property, hazard characteristics and environment. The second priority is reflected in the formation of COLREDs and its integration with competent organisations. Micro-projects are the focus of the third priority; these have been investing in disaster risk prevention and reduction through structural and non-structural measures. Such investments are essential to increase the economic, social, health and cultural resilience of individuals, communities, countries and their assets, as well as the environment. The last priority finds its strength in institutional emergency response and preparedness plans that strengthen the capacity of organisations to respond to emergencies.

The lessons learned and best practices of the project will be conceptualised based on the Sendai Framework's priorities for action and the identified linkages with the intervention strategies.

Risk scenarios in Guatemala

Guatemala, a country in Central America that is home to 32% of the region's 43 million inhabitants, is located in one of the most disaster-prone areas of the world in terms of their recurrence, severity and extent. In relation to its hazards and damages, several global and national reports confirm that

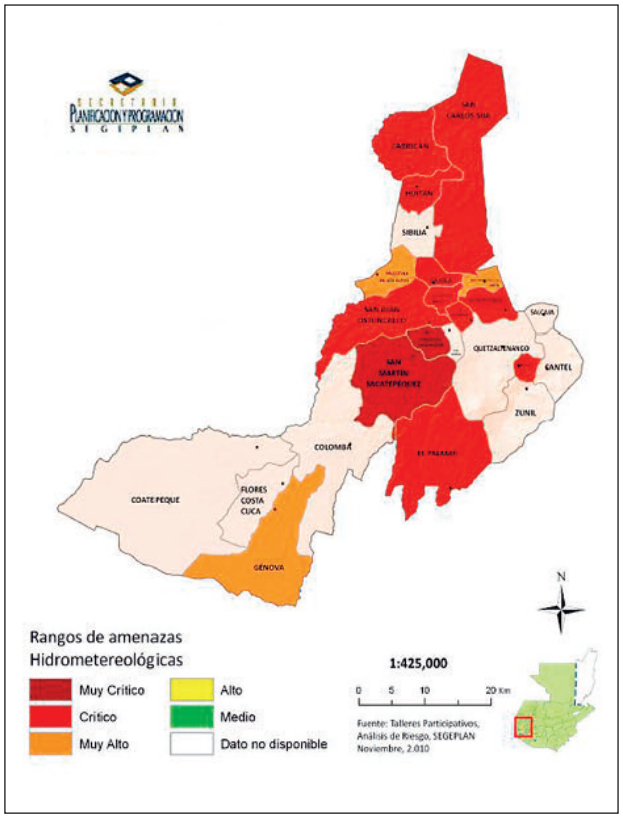


Illustration 1: Risk department map from SEGEPLAN.

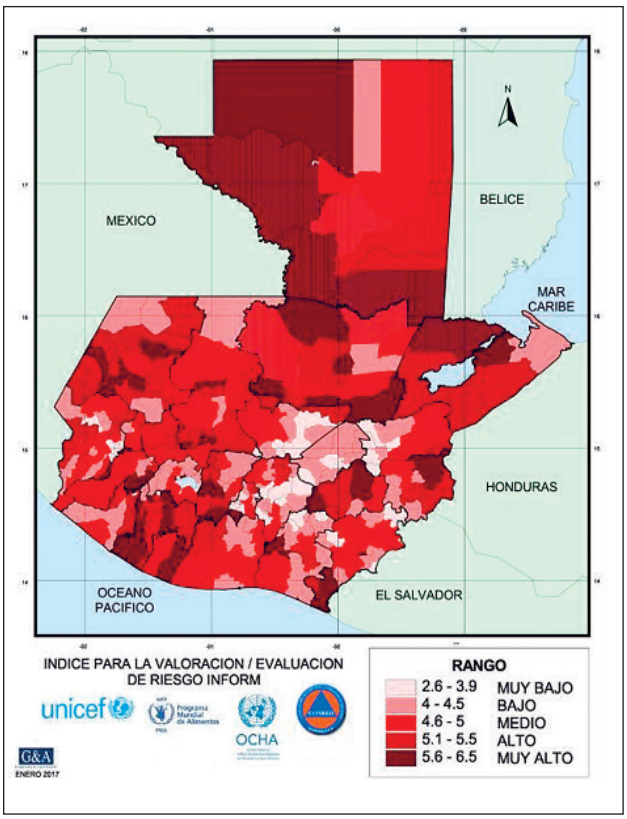


Illustration 2: Risk municipal map, INFORM RISK.

Guatemala is a multi-hazard zone, highly exposed as characterized by factors such as its geographical location, prolonged cyclonic seasonality from the Caribbean Sea and the Pacific Ocean, geomorphology of its territory and confluence of active tectonic plates resulting in a high level of seismic activity in the country, volcanic eruptions, hazards of hydrometeorological origin, as well as forest fires and loss of biodiversity. The impacts of climate change are also to be considered, especially in the "Dry Corridor" where vulnerable communities in Central America are being affected by extreme droughts. While millions of people in Guatemala and Central America are threatened by different phenomena and require urgent assistance and better protection, the region goes almost unnoticed (in terms of donors and public perception) when compared to parts of Africa and Asia. In this project, priority has been given to 3 regions of work with the following characteristics: risk scenario consisting of multiple hazards, population of Mayan ethnicity in a situation of vulnerability and poverty, and with a deficit in coverage by the National Coordinator for Disaster Reduction (CONRED), the official government body responsible for civil protection in the country. In these regions, a recent history of damage and losses exists due to the impact of hydrometeorological phenomena: hurricanes, storms and droughts (extensive risks) and to a lesser extent earthquakes and landslides (intensive risks). The Maya ethnic group is the most affected population group. It is characterised by severe poverty, poor nutrition or malnutrition, lack of access to education and health, and general social exclusion.[1]

The map on the left shows the risk at the municipal level in Guatemala, INFORM Guatemala (Index for Risk Management)[2]. Form the map on the right (SEGEPLAN), it is possible to identify levels of hydrometeorological hazards present in the municipalities of the department of Quetzaltenango.
Based on the information and risk indices compiled by international, national and local sources (community risk analysis), the following chapter describes different risk scenarios in Guatemala in the two departments of Quetzaltenango and Baja Verapaz, focusing on different hazards: droughts, floods and hurricanes.

1 Information is based on the project grant application submitted by DKH, which was approved by the AA (German Federal Ministry of Foreign Affairs) on 05.10.2015. 2 INFORM Guatemala 2017 http://www.inform-index.org/Subnational/Guatemala. INFORM Guatemala (Index for Risk Management) is an initiative of UNICEF, OCHA and WFP that will be adopted by CONRED for municipal decision-making in humanitarian crises and disasters. This indicator-based map identifies risks, hazards, vulnerabilities and response capacities in Guatemala's 340 municipalities. The municipal risk index simplifies information on crisis risk and is composed of 29 indicators representing the three dimensions of risk: hazard and exposure, vulnerability and responsiveness.

Department of Quetzaltenango (Municipality of Cabricán)

INFORM Guatemala	According to data from INFORM Guatemala, the level of risk in the municipality of Cabricán in the department of Quetzaltenango is estimated to be medium, with a low degree of exposure and vulnerability and a medium lack of responding capacity.
SEGEPLAN	Based on SEGEPLAN, the estimated risk for this department is very high due to the relationship between socio-natural, hydrometeorological, human and geological threats. These combine with the existing condition of vulnerability, specifically in the weak cultural and ideological, environmental, economic and educational factors. At the municipal level in Cabricán, the estimated risk is critical.
Community-based risk analysis	Finally, the community-based risk analysis in Aldea Buena Vista, Cabricán identified the following risk-related issues at the community level: Buena Vista el Cerro is one of the most remote communities in central Cabricán and therefore does not have basic services such as a water distribution network. This represents a vulnerability for the population. The community found that the main hazards they face are hurricanes and drought, mainly through damage to livelihoods and to the health of the population. Though there are some minimal prevention activities for prioritised hazards in the community, there should also be capacity building to strengthen prevention actions and initiate response and mitigation actions. Based on the community risk profile, a community action plan was developed listing activities in the areas of disaster preparedness, prevention, mitigation and response. Construction of lanes to improve roads and the formation of school committees for DRR, as well as the implementation of early warning systems, were measures prioritised in the community action plan.

Heavy rain and hurricane risk scenario

Illustration 3
Symbols for heavy rain and hurricanes, IPCC 2014

Department of Baja Verapaz (Municipality of Rabinal)

INFORM Guatemala	According to data from INFORM Guatemala, the level of risk in the municipality of Rabinal in the department of Baja Verapaz is estimated to be medium, with an average degree of exposure and vulnerability and medium lack of response capacity.
SEGEPLAN	At the municipal level, Rabinal's estimated risk is very critical. Among the main threats are hydrometeorological hazards due to storms and droughts, and socio-natural hazards due to pollution and environmental degradation. The main vulnerabilities are structural physical, economic, political, institutional and ideological cultural vulnerabilities, which identify the lack of local autonomy and institutional participation to manage risk.
Community-based risk analysis	Finally, from the community-based risk analysis in Aldea La Ceiba, Rabinal, the following risk related issues are identified at the community level: Based on existing community hazards (droughts, pests) in relation to their level of exposure and vulnerability, the community is at a high level of disaster risk. First of all, the community is located in the designated Dry Corridor. In relation to vulnerability, the analysis determined that families have little knowledge, experience or resources to reduce or adapt to the potential impact of disasters. There is no community-level strategy for emergency response as the entire community is not aware of the risks to which they are exposed. The actions for risk reduction are limited and are not always certain to be carried out. The loss of avian heritage has a significant impact on the household economy; this is mainly a concern for women who are directly related to the management of birds, the sale of which they depend upon to generate income to diversify their diet. The community action plan lists activities in the areas of disaster preparedness, prevention, mitigation and response. The project identified measures designed to strengthen resilience, including the formation of COLREDs and training focused on bird management.

Drought risk scenario

Illustration 4
Symbols for high temperatures and drought, IPCC 2014

Strengthening at the community level

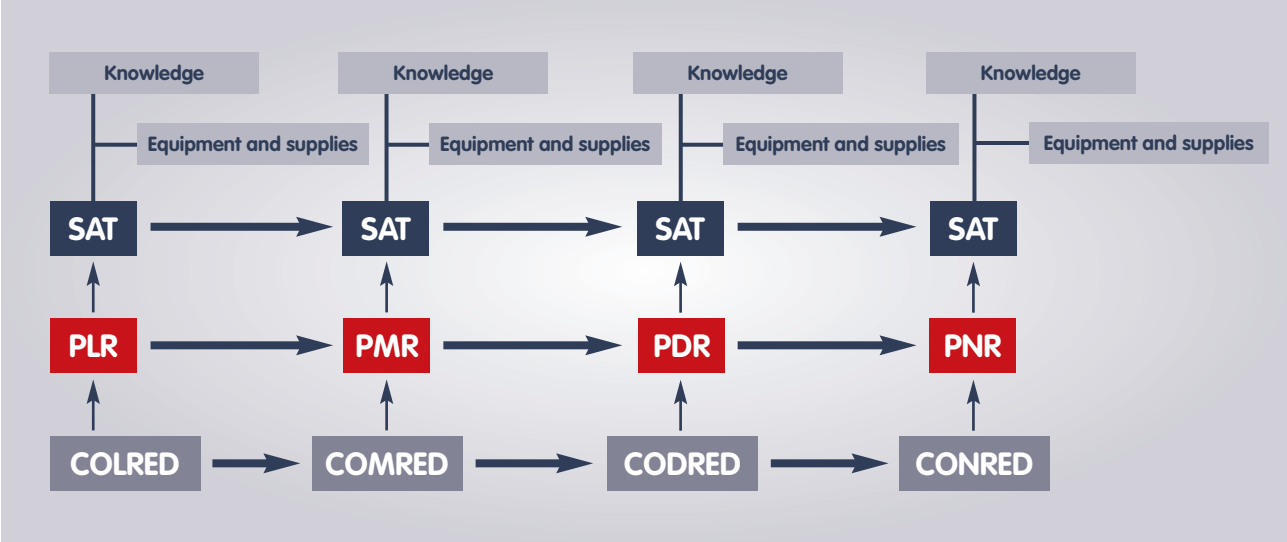


Illustration 5: Decentralised system of disaster risk management in Guatemala. The first level represents the Coordinator for Disaster Reduction (COLRED: local; COMRED: municipal; CODRED: departmental; CONRED: national). The second level shows the response plan (PLR: local; PMR: municipal , PDR: departmental; PNR: national). The third level – SAT – means the early warning sytem.

Given the different risk scenarios, the CONRED system of the State of Guatemala was created to prevent disasters and reduce their impact on society. This entity is responsible for the assessment of potential risks, imminent or actual disasters based on information provided by the National Institute of Seismology, Vulcanology, Meteorology and Hydrology (INSIVUMEH), a body responsible for establishing communication mechanisms for disaster reduction in its various phases (before, during and after). However, the technical staff of these institutions assigned to the departmental and municipal levels is insufficient, a factor that limits their scope of action, resulting in a lack of accompaniment at the community level.

Due to the restricted range of the CONRED system described above, the majority of the population is not aware of risk management and disaster prevention. The growing and already notable impacts of climate change underscore the urgency of awareness-raising activities related to disaster risk and climate change at the local level. Differences in language, traditions and beliefs are a challenge that must be taken into account when accessing municipalities and especially communities. With 26 different ethnic groups, Guatemala has a marked cultural heterogeneity and a high degree of cultural diversity, as well as high illiteracy rates among rural and indigenous populations. For this reason, it is necessary to guide disaster preparedness and management initiatives at the local level in the face of a scenario of different threats and hazards in order to increase the capacities of local communities and partners through disaster risk reduction (DRR) tools and methodologies adapted to the local culture. This project has sought to consider cultural membership, a factor that limits the response and integration capacities of the Mayan population in the national civil protection system.[3]

Finally, the lessons learned and good practices of the project will be presented based on the approach of strengthening resilience at the community level.

Workshop with CONRED for identifying lessons learned at the community level.

3 Information is based on the project grant application submitted by DKH, which was approved by the AA (German Federal Ministry of Foreign Affairs) on 05.10.2015.

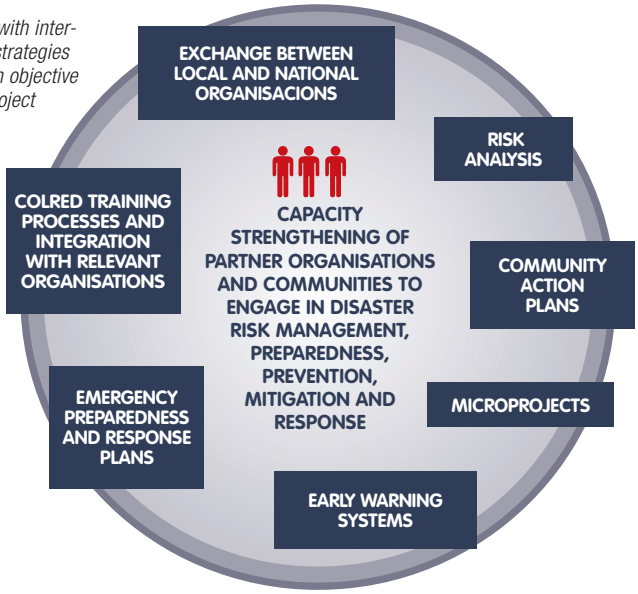
PROJECT DESCRIPTION

Based on this problem in Guatemala, the general objective of the project is defined as the strengthening of capacities at the community and institutional level for the application of local knowledge related to disaster prevention, contributing to integration and coordination with competent organisations at the national level, and the use of the elements acquired through this experience in future projects (in similar contexts in Central American countries).

Through the different intervention strategies employed within the framework of the project, including risk analysis (RA), community action plans (CAPs), early warning systems (EWS), microprojects (MOPs), emergency response and preparedness plans (EPRPs), COLRED training, etc., it aims at strengthening the capacities of partner organisations and communities to engage in disaster risk management, preparedness, prevention, mitigation and response. The intervention strategies can be applied in a synoptic way, but they are intertwined at different points in the project.

Women working on a community mapping.

Graphic with intervention strategies and main objective of the project



The following paragraph lists the different steps taken in the project. First, a joint understanding of the definition of key DRR terms was created with implementing organisations and community members. Community risk analyses (RAs) were subsequently planned and carried out. This should be done in a participatory manner with the aim of strengthening local people's awareness of the natural hazards that surround them, their vulnerabilities and capacities. A comprehensive understanding of risk scenarios is the main prerequisite for reaching the next stage, the CAPs. These contain the description of local DRM structures, emergency plans, early warning systems and priority action measures. In addition, microprojects were also managed and implemented, based on the results of risk analyses to address the main problems. Furthermore, emergency and response capacities at the institutional level were strengthened with local organisations. This objective is achieved by implementing or updating EPRPs.

The systematization of the project at the end of the project sought to compile, organise, analyse and share the knowledge emerging from practice, to convert it into usable knowledge through a process of critical reflection and appropriation so that it can be replicated with equal or greater success. Based on the results of the process of systematization of the project, this publication of lessons learned and best practices was created. The intervention strategies designed within the framework of this project (cycle RAs→ CAPs→ MOPs→ EWS→ COLRED etc.) were a great success, having incorporated disaster preparedness, prevention, management and response within a single methodological framework. The design and implementation of early warning systems and COLRED training processes ran in parallel.

INVOLVED ACTORS

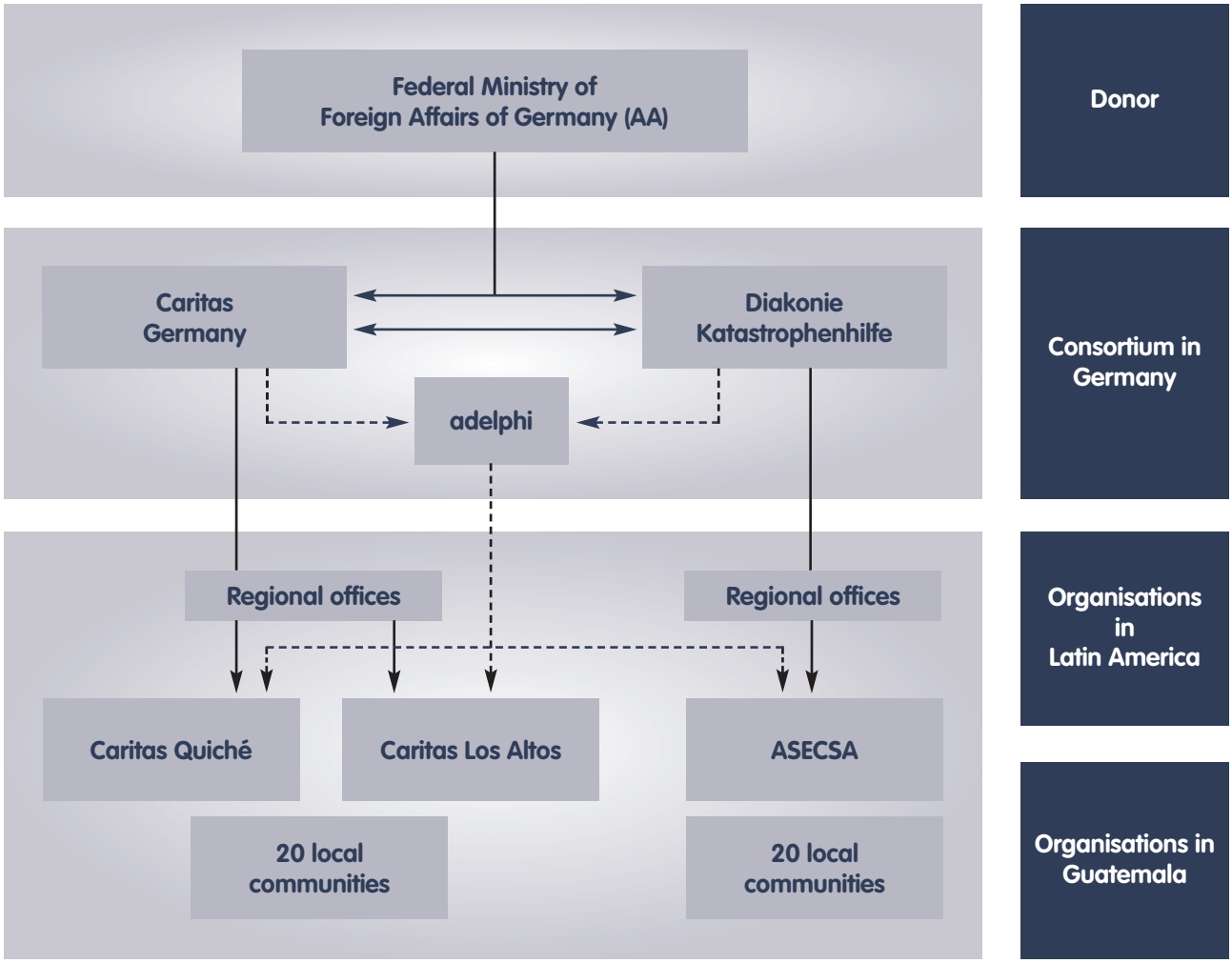


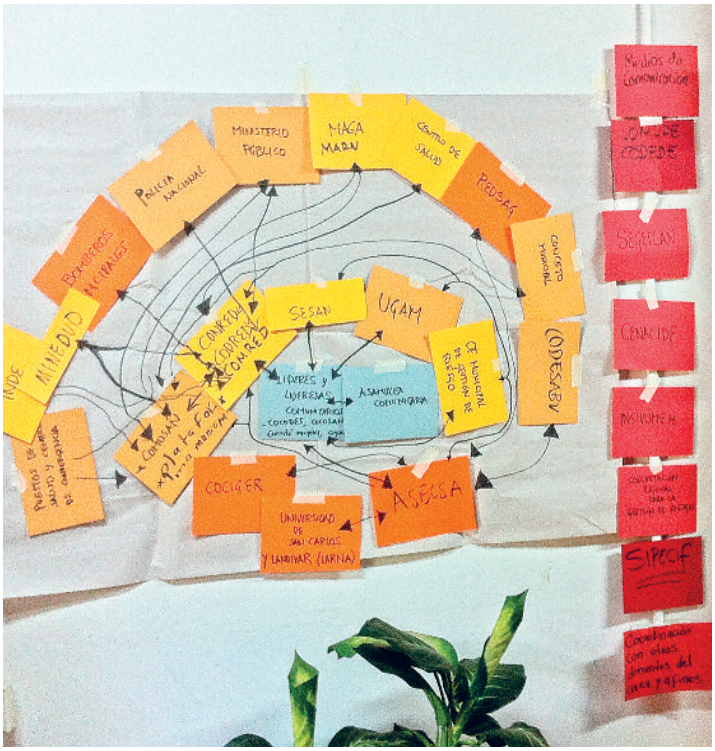
Illustration 7: Involved actors at the consortia level.

The project originates in the initiative of Caritas Germany and Diakonie Katastrophenhilfe to carry out a project in Latin America with a new approach that included combining strengthening communal and institutional disaster preparedness. The Federal Ministry of Foreign Affairs of Germany supported the initiative due to its innovative nature in disaster preparedness and prevention and required the formation of a consortium. Furthermore, the project was built on the challenges of previous projects related to DRR methodologies and tools. This led to the organisational chart that can be seen in the graph.

The consortium was established in Germany, joining the forces of the Catholic Caritas and Protestant organisations of Diakonie Katastrophenhilfe. To support the consortium and local organisations in various activities, a specialised consulting firm (adelphi) based in Berlin, Germany was contracted. In addition, technical and financial support and advice were provided by Caritas regional offices in Bolivia and El Salvador and by Diakonie Katastrophenhilfe in Colombia.

For this project, the consortium established between Diakonie Katastrophenhilfe/Caritas Germany chose to work with three local organisations along three fundamental criteria: institutional capacity for technical and financial management, specific work at the community level in areas with high disaster risk, and proven experience with DRR programs through the use of specific local RA tools and methodologies. Finally, the decision was taken to work with Caritas Quiché in Santa Cruz del Quiché, Caritas Los Altos in Quetzaltenango and ASECSA in Baja Verapaz. In total, 40 communities were involved, 20 in relation to

the Caritas and 20 in relation to ASECSA. The map of actors presented in the picture shows the actors involved in one of the three pilot regions, Baja Verapaz. At the centre of the map are the right-holding actors: the community assembly, community leaders, etc. On the other hand, holders of obligation and responsibility can be found around the right-holding actors in yellow and orange, those are in the first instance the institutional platforms (COMUSAN, CODRED, COMRED, CONRED, SESAN, etc). Lastly, the ones in red are other entities not intensely involved in all the phases of the project, such as the national police, municipal firefighters etc. CONRED, COMRED, CODRED and COMUSAN platforms were the entry point for ASECSA to create a communication network with the other actors. In addition, the community leaders worked on these platforms.
The media should have been integrated into the project, though have not played a very important role. The Sendai Framework mentions the media, which should play an active role in contributing to public awareness and understanding by disseminating accurate and non-confidential information on disaster risks, hazards and disasters.



Involved actors and entities within the local implementation.

Considerations and lessons learned in relation to the map of actors

• **Inter-institutional coordination:**
It is concluded that planning coordination between actors at the start of the initiative would facilitate the achievement of the project's objectives due to the positive impact of inter-institutional exchange. As a result, it is necessary to consider institutions from the outset as strategic allies that will guarantee that the actions will have more impact.

• **Coordination between local organisations:**
In relation to the coordination between the three local implementing organisations, it can be observed that each one presents its strengths in different aspects, which have great potential to be a strength for the complementarity of the organisations. In the application of tools for the RAs, there was a methodological exchange that provided the consortium with knowledge at the beginning of the project.

• **Coordination with state entities:**
Within the framework of this project, the aim was to strengthen coordination between state entities in the area of DRM. In order to achieve this objective, positioning the issue on the political level was pursued as a goal.
The articulation of local organisations in municipal and departmental platforms and the activation of a national/regional forum would contribute greatly to the creation of such strategic alliances. This was partially achieved; for example, the participation of ASECSA in COCIGER (as a representative of the consortium), had some relevance on the political level, since it was an attempt to influence the formulation of the revision of CONRED's law. The challenge for current local organisations is to maintain the strategic alliances and inter-agency links created during this project. Some will be weakened, but with the follow-up activities on DRR, these links should be maintained at the inter-agency level. This will happen depending on the funds available to continue working on the issue. The sustainability of the project and the processes developed within it become very complicated without further funding.

LESSONS LEARNED AND BEST PRACTICES

The lessons learned and good practices of the project will be more nuanced than the action priorities of the Sendai Framework, from vulnerability reduction and capacity building to the risk scenarios identified in the project. And finally, they will be presented on the basis of the approach of strengthening resilience at the community level.

Lessons learned at the community level

→ Linking local and municipal development platforms enabled feedback on the DRR architecture at the municipal level and thus strengthened disaster risk governance.

One of the challenges faced throughout the project was the limited integration of the COLREDs with municipal DRR structures. This made it difficult to ensure the sustainability of the actions developed and their impacts on some of the communities. The figure of COMRED is in many cases non-existent in Guatemala due to a lack of political interest, financial resources and technical capacities. In order to overcome this challenge, the coordination and decision-making spaces were transferred to the COMUDE, through the COCODES that appropriated the topic of DRR. The search for partnerships with other institutions at the municipal level (Institutes of Health, SESAN, Emergency Committees) was a solution and a factor for success in some pilot communities. In the process of forming the COLREDs, spaces for community and institutional participation were opened with civil society and government entities. For future actions, this aspect should be reinforced or municipalities should be involved from the outset of activities, as an alliance strategy. In other cases, municipalities were very interested in DRR but lacked the resources for COMRED training.
Under this activity, it was possible to strengthen disaster risk governance for DRM (priority action 2 of the Sendai Framework) by strengthening resilience at the community level and linking it to municipal structures. In addition, DRR was successfully mainstreamed into some other sectors (health, agriculture).
→ The focus lies on working with active minorities in the communities, with awareness raised and members empowered to prevent low participation at the community level.

Women having lunch in a community in Quiché.

The involvement of some community members in the COLRED meetings was not consistent in all phases of the project. Some external factors such as the need for some individuals to work during the sessions, or for economic reasons, illness, family responsibilities, migration, or simply distance were decisive for the lack of participation. In order to prevent this situation, the most relevant focus groups were active minorities of the communities, with awareness of and empowered in the area of DRR. In addition, the COLRED commissions were reorganised as the situation demanded, and the reasons for the absences were recorded in the minutes. In this way, desertion of some people in the communities was avoided. It is important for this type of project that the same community members involved from the outset continue until completion, as this will ensure ownership of the project and an increase in response capacities at the community level.
According to the analysis carried out in the systematization workshop and community visits, strengthening at the community level has been the most successful component of this project, followed by strengthening at the institutional level. The political and community level efforts that some COLRED leaders and members undertook can be interpreted as significant progress, due to their advocacy at the municipal level for the implementation of microprojects (e.g.) and for increasing understanding and socialization of risk-related terms in communities.

Workshop with local communities in Baja Verapaz, leaded by ASECSA.

Best practices at the community level

➞ The CAPs should be monitored in decision-making spaces, with the aim of continuing to plan and implement priority actions and MOPs prioritised in the CAP.

The strategy of including CAPs and MOPs was a factor in the success of this project as communities were able to position themselves more decisively on the issue and involve municipal governments. On the one hand, an action plan was generated in a participatory manner, with prioritised actions centred on the RAs. On the other hand, municipalities in some cases were very present in the planning and management of MOPs, as they played the role of co-financiers. A good practice would be to follow up on the CAPs for their implementation in decision-making spaces. It also succeeded in motivating municipalities to include DRR projects in their municipal planning. Risk factors were also linked to MOPs in all communities with the aim of mitigating existing risks. By recognising existing impacts at the community level, communities were motivated to implement CAPs with the aim of further mitigating or decreasing existing risks.
Through the implementation of MOPs with financing at the municipal level, the impact extends from the local to the municipal and even global level, taking into account priority 3 of the Sendai Framework, which seeks to invest in DRR for resilience. The priority ensures that public investment in disaster risk prevention and reduction using structural and non-structural measures is essential to increase the economic, social, health and cultural resilience of individuals, communities, countries and their assets, as well as the environment. Within the framework of this project, different structural measures (construction of lanes) and non-structural measures (training for bird management) were carried out. They contributed to an increase in communal resilience and impacted resilience at a global level.

➞ Awareness, motivation and training on the importance of women's role in the community had a very positive effect.

The role of women as members of COLRED and in the implementation of the MOPs was one of the strengths of this project. In many of the COLREDs, women with active roles were represented. Moreover, in 4 of the 40 COLREDs formed, leadership was in the hands of a woman.
The role of field technicians is fundamental in awareness-raising, motivating and training on the importance of the role of women in community-based DRM. Women's leadership was very positive in most cases, as they were able to have an influence at the municipal level in carrying out MOPs. COLREDs formed by women seemed very beneficial as they are the ones most likely to be present in the community in case of emergency, as they are less likely to

adelphi coordinating the systematisation with local communities in Quiché.

migrate for work. As the Sendai framework for action mentions, women's participation is essential for effective disaster risk management, as well as for designing, resourcing and implementing gender-responsive disaster risk reduction policies, plans and programmes. In this project, theory and practice have been verified, as it can be seen that COLREDs are organised and work much better in the presence of women. Moreover, women should have leadership roles in DRM, especially in the Guatemalan context, as men are often forced to emigrate during seasons.

Lessons learned at the institutional level

→ Adapt community and natural warning systems already in place in the community to enhance the success of EWS.

The implementation of early warning systems for slow-onset events such as droughts was recognised as a necessity in this project (especially in communities in the Dry Corridor). Nevertheless, implementing them was a great challenge because of their complexity and because they require technical skills and support from municipal level structures such as SESAN. This was not always the case. In some cases, community and natural warning systems already established in the community were adopted. Some examples of community alerts include a bell or loudspeaker, while a natural alert can be the howling of dogs or clouds and wind. At the institutional level, it was recognised that community knowledge passed down across generations could be used to assess natural variations and potential hazards.

Priority action 4 of the Sendai Framework, which frames enhanced disaster preparedness for effective response, refers to the development, maintenance and strengthening of people-centred and multi-sectoral early warning and multi-hazard prediction systems. Such systems are to be developed through a participatory process: adapting user needs, taking into account social and cultural particularities, especially gender, promoting the use of simple and low-cost early warning equipment and facilities, and expanding the channels for disseminating early warning information on natural disasters.

Tecnical professionals from Caritas showing the risk map to the communities in Quetzaltenango.

Participants of the systematisation workshop in Antigua.

Best practices at the institutional level

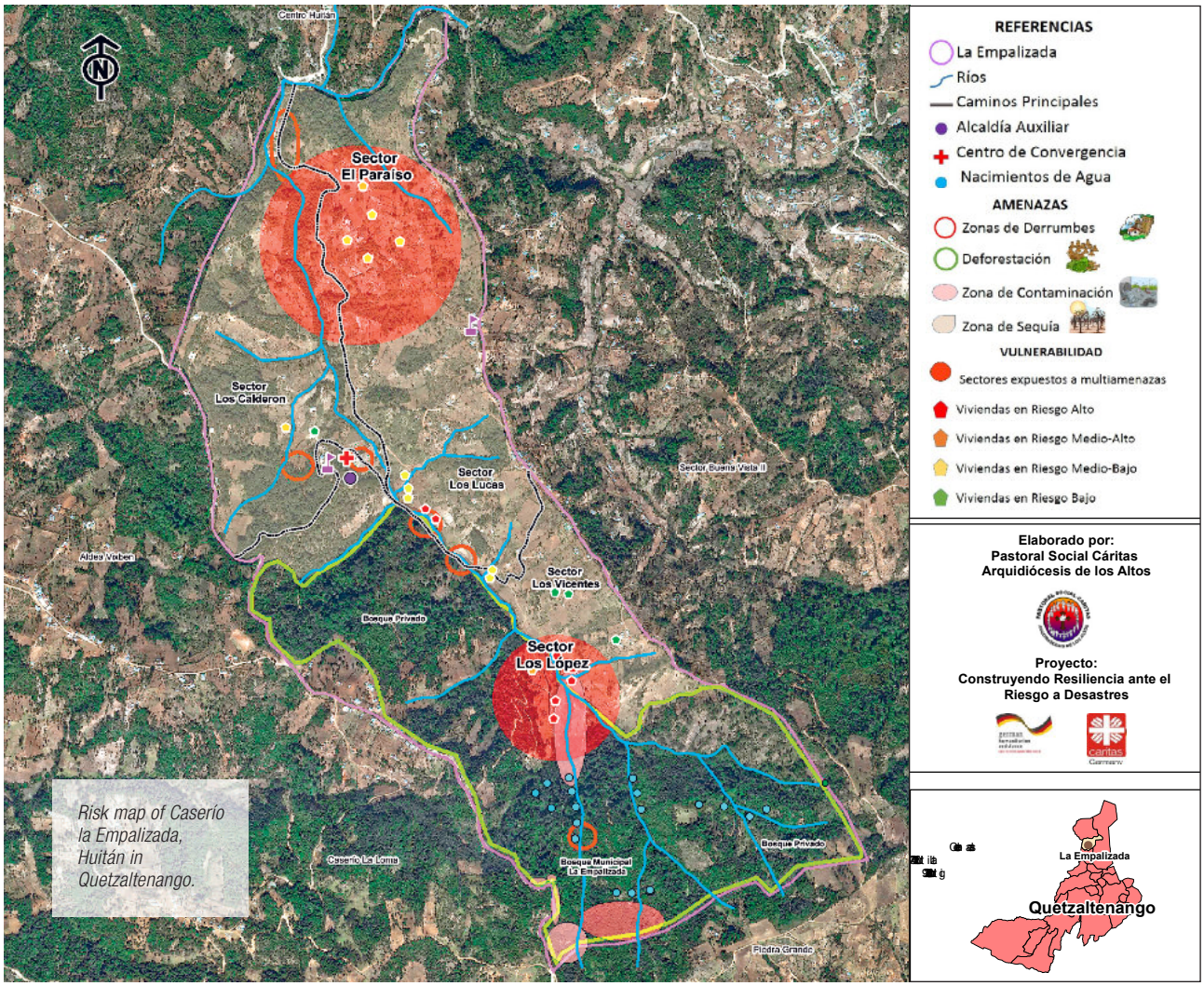
➞ The hiring of staff who understand the region's languages is essential to build confidence in the communities and to achieve the application of local knowledge in community-based DRM.

Staff from the region who understand the communities' native languages were involved in the community-based activities; this generated trust and community participation throughout the process. The institutional recruitment strategy for staff in the region's linguistic area is essential for the success of this type of project.
Important efforts have been made to achieve the objective of applying local knowledge for disaster prevention. Some communities have managed to raise the issue in schools; through them, this knowledge has been passed on to families. When working with RA instruments, the terminology was adapted according to the language used and circumstances. In order to work with the communities, it was not necessary to change the technical terms of the definitions. In relation to the whole project, it is also worth mentioning that the local organisations had knowledge of the context of the intervention area and accumulated work experience with municipalities and/or parishes of the regions. This played a beneficial role in deepening the realities and wishes of the beneficiaries of each project and in being able to implement sustainable proposals.

Lessons learned in the cooperation between organisations

➞ By linking various levels (communal, municipal, departmental and national) of decision-makers through institutional platforms, the transmission of information and data collected is ensured.

A problem that is prevalent in almost every rural area of the world is the lack of community-level information related to DRR and climate change and their feedback to decision-makers. In the context of this project, information was generated at the community level (RA, CAPs etc.). How can we ensure that this information is collected and used by decision-makers in other contexts? It would be possible to achieve this impact by linking various levels (communal, municipal, departmental and national) of decision-makers through institutional platforms.
This is reflected in priority 1 of the Sendai framework: understanding disaster risk, promoting real-time access to reliable data, using spatial and in situ information, including geographic information systems (GIS), and using information and communications technology innovations to improve measurement tools and data collection, analysis and dissemination. Community-level data collection and transmission at the municipal, departmental and national levels would ensure better decision-making.



Risk map of Caserío la Empalizada, Huitán in Quetzaltenango.

Best practices in the cooperation between organisations

→ The exchange of existing technical and scientific knowledge between partners is recommended for this type of consortium project, as there is a wealth of methodologies and models for assessing disaster risk that is very useful in improving the quality of communal RAs.

The RA toolkit (integrated into the resilience manual) consists of all tools that were applied in communal RAs. These instruments were implemented by the three local organisations. These included exchanges on the contents and methodologies of RA. This toolkit expanded the institutional instruments in each organisation for the implementation of participatory RA processes. The exchange of information between the partners is recommended for this type of consortium project, as it can encompass a wealth of methodologies that are very useful in improving the quality of communal RAs.
This best practice is also reflected in priority 1 of the Sendai framework: understanding disaster risk, by strengthening the technical and scientific capacities of local organisations to build on and consolidate existing knowledge, and to develop and apply methodologies and models for assessing disaster risk, vulnerabilities and exposure to all existing hazards in communities.

Children in front of the communal health center in Quiché.

Regional meeting on vulnerability and climate change

Women working on the community mapping

➞ Socialising the project on national platforms and working to integrate the information generated in the project at the national level is of paramount importance to ensuring sustainability and maintaining the alliances created in the project.

Some of the local organisations participated in national forums on climate change and vulnerability with the aim of socialising the project in national platforms and integrating the information generated in the project at the national level. One of the partners became involved as a reference for the consortium in the national vulnerability and risk management platform.
Establishing and strengthening governmental coordination forums at the national and local levels composed of relevant actors, such as national and local platforms for disaster risk reduction, and a national coordinator designated to implement the Sendai Framework for Disaster Risk Reduction 2015-2030, is one of the priority actions in the Sendai Framework. The local partners managed to participate in national forums with different platforms and citizen convergence on climate change and disaster risk reduction, but efforts are still needed in this sector.

ANNEX 1 GLOSSARY

Capacity The combination of all the strengths, attributes and resources available within a community, society or organisation that can be used to achieve agreed goals (UNISDR 2009).

Lessons Disaster A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR 2009).

Disaster risk management The systematic process of using administrative directives, organisations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster (UNISDR 2009).

Disaster Risk Reduction The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR 2009).

Hazard A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (UNISDR 2009).

Mitigation The lessening or limitation of the adverse impacts of hazards and related disasters (UNISDR 2009).

Preparedness The knowledge and capacities developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions (UNISDR 2009).

Prevention The outright avoidance of adverse impacts of hazards and related disasters (UNISDR 2009).

Resilience The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (UNISDR 2009).

Risk The combination of the probability of an event and its negative consequences (UNISDR 2009).

Vulnerability The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard (UNISDR 2009).

ANNEX 2 METHODOLOGY

Interviews in the communities
The overall project results and lessons learned/best practices were identified through a SWOT analysis that was carried out with the information gathered from community visits.

Objective The system to be analysed in this SWOT analysis consists of community organisations and COLRED. The project objectives directly related to the community organisations, and which are the focus of this SWOT analysis, are:
– Improvement of the response capacity of communities and coordination mechanisms with competent authorities in case of disasters through the application of community CAPs and EWS.
– To provide communities and local organisations with socially and culturally adjusted instruments in disaster risk reduction areas that allow for rapid, differentiated and dignified attention to affected populations in risk situations.
Methodology: Visit the communities in Quetzaltenango (Los Altos) and Quiché (Santa Cruz del Quiché).[4]
Four communities were visited in three days: two communities in Los Altos (San José Chicalquix and La Empalizada) and two communities in Quiché (Las Culebras and Las Parcelas). During these visits, information was obtained through semi-open interviews and written questions with a presentation of the results by the participants. The people interviewed in Quetzaltenango included the leaders of the 10 COLREDs of the communities of Los Altos, members of the COLREDs of San José Chicalquix and La Empalizada and the Mayor of the Huitán Municipality, which comprises three of the communities where Caritas Los Altos works. In Santa Cruz del Quiché, a simulation of the earthquake and traffic accident in Las Culebras was witnessed and all the COLRED members were interviewed. In Las Parcelas, members of the COLRED and community members were interviewed.

Workshop with local organisations, consortium members and governmental/local entities (COLRED, CONRED, SESAN, etc.)
Objective: Documentation of best practices and lessons learned from successful experiences and challenges in local organisations.
Methodology: In order to document the lessons learned, successes and major challenges in the work at the institutional level were analysed and defined:
In this case, the following key points were analysed:
– community work
– work in the institution
– cooperation between organisations
A distinction is made between situations of success and their causes, highlighting the main challenges faced. It explains how the challenges were overcome and makes suggestions and recommendations for future phases or projects.

4 Coordination Carmen Morales, Moderation Roberto Orozco and Isabel Chay.
The communities of Baja Verapaz could not be visited due to lack of time.

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