



CapHaz-Net

Social Capacity Building
for Natural Hazards
Toward More Resilient
Societies

POLICY BRIEF N° III

**Between institutional
fragmentation and
community involvement**

*Practices of social capacity
building in the management
of natural hazards in Europe*

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The **capHaz-net Policy Briefs** are a major project tool to translate and disseminate the project results to a wider audience.

We call our newsletter a ›policy brief‹ because we want to address the natural hazards community at large – that is not only scientists but also the interested public as well as practitioners and decision-makers from different institutions, organisational levels and geographical scales.

The policy briefs and the capHaz-Net reports are available online at <http://www.caphaz-net.org>

Acknowledgement

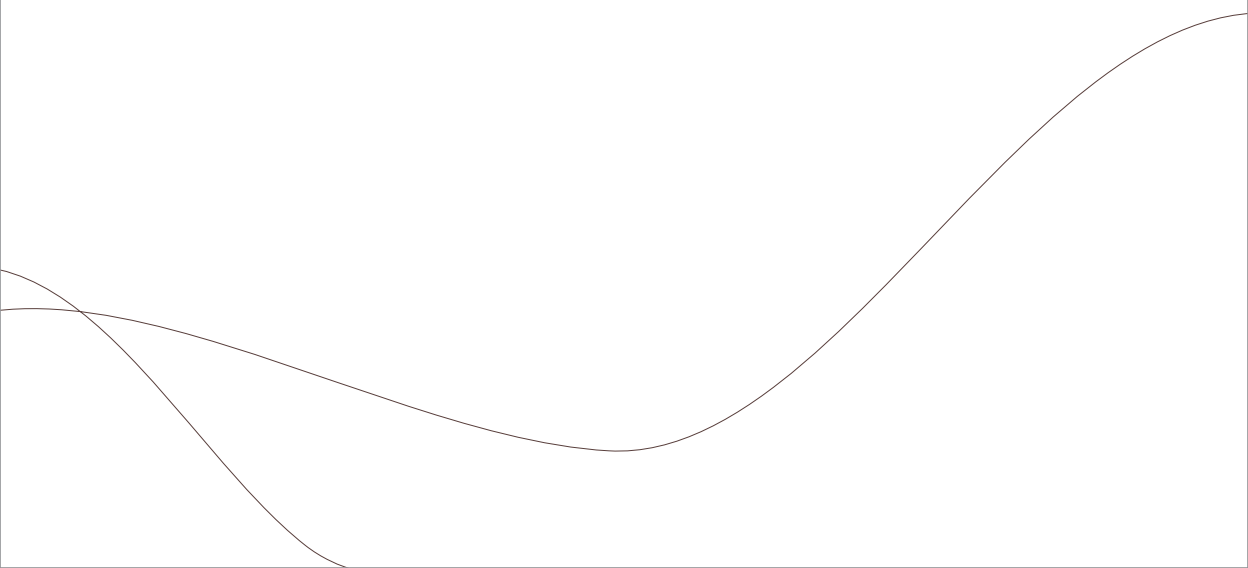
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01 Forest fires: not just a technological challenge

Conceptual knowledge on social capacity building needs to be complemented by practical experience and the other way round. This was the main rationale for conducting three Regional Hazard Workshops during the second phase of the CapHaz-Net project.

1 Introduction

capHaz-Net aims to achieve its objective of building social resilience towards natural hazards through social capacity building. By using this term – rather than the more established ‘capacity building’ – we want to emphasise that this process refers to a social endeavour. **SOCIAL CAPACITY BUILDING** is understood as a long-term, iterative, and mutual learning process that is based on the cooperation and interaction of a variety of societal actors. It is seen as a process, which is aided by **RISK GOVERNANCE**, better understood by assessing **SOCIAL VULNERABILITY** and **RISK PERCEPTIONS**, and realised through methods of **RISK COMMUNICATION** and **EDUCATION**.

Social capacity building – capHaz-Net’s understanding

Which capacities?

- Knowledge
- Motivation
- Social networks
- Financial resources
- Governance resources

Whose capacities in particular?

- Local communities
- Authorities and organisations involved in the management of natural hazards

Through which approaches?

- Interventionist (top-down)
- Participatory (bottom-up)
- Mixed

This capHaz-Net Policy Brief N° III aims to provide an overview of current social capacity building efforts in Europe in regard to the management of natural hazards by considering endeavours and activities of both risk management organisations and local communities. This is achieved by assessing the lessons learnt from three Regional Hazard Workshops that capHaz-Net conducted in 2010 and 2011. Furthermore, recommendations for future social capacity building efforts are presented.

The themes of the workshops included:

- Institutional settings and cooperation with regard to heat-related hazards (droughts, forest fires and heat waves) in Southern Europe (Barcelona, Spain, October 2010),
- Social capacity building for alpine hazards (Gorizia, Italy, April 2011),
- Participation in Central European flood risk management paying particular consideration to the European Floods Directive (Leipzig, Germany, May 2011).

The aim of the workshops was to down-scale existing knowledge gained during the first project phase¹ to different risk governance settings and regions across Europe by taking into account various natural hazards. Stakeholders from different backgrounds, including local and regional policy-makers and scientists, met to discuss existing practices, approaches and legal tools in European risk management.

¹ In more detail: capHaz-Net Policy Briefs N° I (March 2010) and N° II (March 2011), to be retrieved from <http://www.caphaz-net.org/outcomes-results>.

THEMATIC WORKPACKAGES

- SOCIAL CAPACITY BUILDING >>

- RISK GOVERNANCE >>

- RISK PERCEPTION >>

- SOCIAL VULNERABILITY >>

- RISK COMMUNICATION >>

- RISK EDUCATION >>

Top-down / interventionist approaches

National / European scales
Public sector & institutions



Local / regional scales
Private sector
Bottom-up / participatory approaches

REGIONAL HAZARD WORKSHOPS

- << HEAT-RELATED HAZARDS

- << ALPINE HAZARDS

- << RIVER FLOODS

The creation of a culture of disaster resilience is a continuous challenge for current European societies.

Social capacity building in the management of natural hazards in Europe: thematic structure of CapHaz-Net



02 Flood in
Kostanjevica na Krki,
the 'Slovenian
Venice' (2010)

2 Regional Hazard Workshops: topics and aims

Each workshop had a specific focus which was determined by the context of the area in which the workshop took place.

The **BARCELONA** workshop focused on the heat-related hazards of **DROUGHTS, FOREST FIRES AND HEAT WAVES** within the context of Spain, specifically Catalonia. The workshop essentially asked four questions:

1. How does the hazard affect us?
2. What is being done in risk management?
3. How to improve it?
4. How do we work together?

By subsequently answering these questions the workshop shed light on the practices, policy approaches and legal tools applied in regard to these three hazards. Before and during the workshop, the institutional fragmentation in managing these different hazards was highlighted as a cross-cutting issue. Participants consisted of members of government bodies, local authorities, NGOs, academics and pensioners – thus bringing together people who normally work on separate hazards. Moreover, two overseas experts from the USA and Australia joined the meeting.

The **GORIZIA** workshop focused on **ALPINE HAZARDS** in Italy, Slovenia, Switzerland and Austria. The main objectives were to provide an overview of existing institutional frameworks for the management of natural hazards in order to:

1. better understand whether and how social capacity building works in practice,
2. identify strengths and weaknesses as well as knowledge and implementation gaps in existing initiatives, and
3. foster interdisciplinary and cross-country dialogue between scientists and practitioners.

Case studies focused on two Italian alpine areas: Malborghetto-Valbruna (Friuli Venezia Giulia) and Vipiteno /Sterzing (Trentino Alto Adige). These case studies were linked to and analysed using the typology of social capacities developed by the capHaz-Net consortium (see Box on p. 3) as possible dimensions and variables for the Strengths–Weaknesses–Opportunities–Threats (swot) analysis. The participants of the workshop were a mixture of scientists, practitioners and representatives from local authorities and NGOs, such as the Italian Civil Protection Department.

The **LEIPZIG** workshop focused on current practices of participation in **FLOOD** risk management in Central Europe and how these apply to the European Floods Directive (2007 /60 /EC). Participants included practitioners from different authorities in Germany, Poland, the Czech Republic, Austria, France and Switzerland as well as experts in the topics of flood risk management and participation. The workshop aimed at answering the following three questions:

1. What is the current situation with regard to practices of flood risk management and the role of participatory approaches in them?
2. Which goals should be achieved by 2020 with regard to participation in flood risk management?
3. What needs to be done to achieve these goals and what needs to be considered?

Each workshop was intensively prepared for by document analyses and expert interviews. In the aftermath of the workshop, each of them was documented in a report (see the references in Chapters 4–6).





03 Transcultural risk communication – English warnings in Roussillon, France (2011)

Efforts to build social capacities take place at the individual and community levels as well as within and between organisations. The institutional structures that have been designed to manage, adapt to and cope with disasters are of critical importance in regard to social capacity.

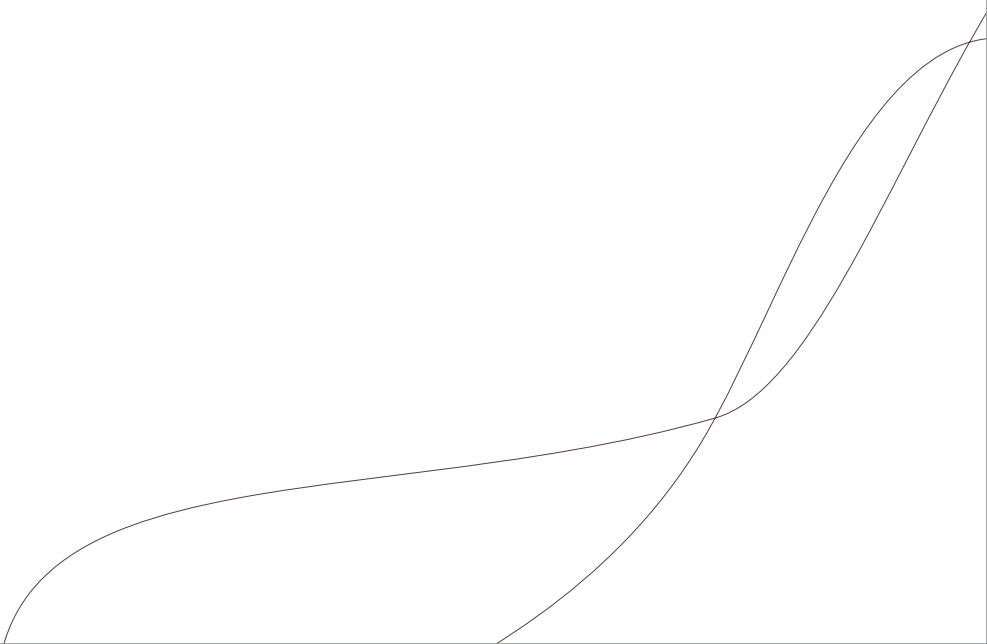
3 The hazards considered

The following section provides descriptions of the chosen hazards and their framing within their respective workshop settings.

capHaz-Net understands **DROUGHTS** as »socio-environmental phenomena, produced by admixtures of climatic, hydrological, environmental, socioeconomic, and cultural forces«. ² Large areas of Europe are affected by droughts and water scarcity, and pressures on water resources have increased. In Europe, over the past 30 years many countries were hit hard by droughts and water scarcity, particularly the Mediterranean countries.

² Kallis, G. (2008). Droughts, Annual Review of Environment and Resources 33, 85–118 (quote: p. 85).

FOREST FIRES are a natural disturbance, which is essential for the regeneration of certain tree species and ecosystem dynamics. In addition, fire has been used in the environmental context for many purposes, including shrub removal in the forest and straw burning in agriculture. In the Mediterranean region, for instance, the abandonment of traditional forest management practices and the suppression of fires for decades led to an accumulation of fuels in the forests, leading to more intense fires. Despite the significant number of fire fighting resources used to extinguish them, large fire episodes that lasted several days occurred recently in Portugal (2003, 2005), Spain (2006) and Greece (2007).



HEAT WAVES have been the most prominent hazard in Europe with regard to human fatalities. In total, more than 50,000 excess deaths are now thought to have occurred during the summer of 2003, and heat waves in the summers of 2006 and 2007 together showed an increase in excess deaths of almost 3,000 fatalities. According to EM-DAT,³ a heat wave is a »prolonged period of excessively hot and sometimes also humid weather relative to normal climate patterns of a certain region«. Due to the fact that the term is relative to the usual weather conditions in a given area, there is neither a universal nor a European standard definition of a heat wave (e. g. in terms of a temperature threshold that has to be reached during a number of consecutive days).

³ EM-DAT. The International Disaster Database: <http://www.emdat.be/glossary/9> (retrieved 30 November 2011).

In the alpine countries, **MOUNTAIN HAZARDS**, such as flash floods, avalanches, landslides and debris flows, constitute major threats for human life, social activities, settlements and economic areas, transport routes, supply lines and other infrastructure. These phenomena occur suddenly, are localised, fast moving, violent and difficult to predict. Major events in past decades were the snow avalanches which hit Switzerland and Austria in 1999 and resulted in more than 60 fatalities as well as the floods in the Italian, French and Swiss Alps in the year 2000 that caused € 12 billion in losses. The natural sciences recognise the main trigger of alpine hazards in both natural and anthropogenic factors. From the physical perspective, reference is made to climatic changes and particularly to modification of precipitation patterns and temperatures. Also human induced factors (e. g. pressure on land by urbanisation, industrial and economic activities in risk areas, deforestation, building of new infrastructures, etc.) play a relevant role in some alpine areas.

FLOODS are Europe's most widespread and frequent natural disasters. The European Floods Directive (2007/60/EC) defines floods as »the temporary covering by water of land not normally covered by water«. ⁴ The Directive itself was the response to a number of disastrous floods in Europe during the 1990s and early 2000s. The Elbe flood 2002 alone caused over € 20 billion in losses from a total of € 150 billion in losses caused by natural hazards in the EU-27 countries (1980–2009), making this event the most considerable in terms of economic damage and losses. Within the frame of current flood management approaches, it is increasingly acknowledged that »big solutions« in terms of large-scale engineering works cannot always solve »big problems« like the severe consequences of major floods. The Floods Directive is but one example of this transformation towards risk management.

However, it is not only with regard to flood management that perspectives have changed in recent years. In general, a more comprehensive view on natural hazards is being established, considering not only the hazard itself but also other dimensions such as the vulnerability of people, buildings and infrastructure, risk perceptions and awareness of residents and decision-makers as well as prevention and mitigation strategies that are adaptable and resilient to uncertain future developments. ⁵ CapHaz-Net is interested in these social aspects of managing natural hazards and the way in which they can be understood in order to encourage more resilient societies.

⁴ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks, Official Journal of the European Union L288, 27–34.

⁵ See European Environment Agency (EEA): Mapping the impacts of natural hazards and technological accidents in Europe — an overview of the last decade. Technical Report N° 13 /2010, Luxembourg, <http://www.eea.europa.eu/publications/mapping-the-impacts-of-natural> (retrieved 20 January 2012).

4 The Barcelona workshop on droughts, forest fires and heat waves: the problem of institutional fragmentation

One of the central points arising from the Barcelona workshop was the importance of dealing with **INSTITUTIONAL FRAGMENTATION**. This problem occurs when there are too many actors performing similar tasks without effectively communicating their actions to each other. Before describing the workshop findings, we therefore start with a description of the institutional management of heat-related hazards in Catalonia.

DROUGHTS: The EU Water Framework Directive (WFD) encourages public participation in the design of water management plans. In Spain, state water authorities at the regional and local levels can establish different types of management measures to mitigate the consequences of droughts. In Catalonia, the Catalan Water Agency (ACA) is the public institution with authority over the entire water cycle for the internal watersheds. Stimulated by the WFD, the ACA carried out a participation process during 2006 and 2009 to develop a management plan for river basin districts in Catalonia. Through this process, the Agency has developed and implemented a series of instruments and management plans which include a variety of measures aimed at reducing water consumption, the recovery of aquifers and the application of the Drought Decree in 2007 (a result of persistent drought in Catalonia in that year).⁶ Measures taken by the ACA have resulted in reduced water consumption of 6 % between 2005 and 2008. The workshop discussion about drought revolved mainly around the right to use water and the right to charge for this use. In the negotiation of these rights, transparency was seen as a main issue.

⁶ The Government of Catalonia revoked the 2007 Drought Decree in January 2009, once the conditions justifying the emergency situation no longer existed.

FOREST FIRES are managed within the context of the National Forest Programme (NFP) from 1996. The Central Government has the authority to create legally binding frameworks and define guidelines to meet international commitments. The Autonomous Communities implement these frameworks and guidelines in their given area. In Catalonia, prevention and fire fighting authorities are allocated in different departments. The administrative structure for forest fire risk management is complicated. The complexity requires an intra- and inter-organisational setting in order to avoid the overlapping of functions within the regions and at the national level.

The workshop discussions focused on the idea of both social and organisational *learning* through education and communication due to the problems created by lack of coordination, in addition to the idea of personal responsibility for that learning. The current complexity of institutions involved in, for example, forest fire management results in confusing, incomplete and even contradictory messages. Participants particularly emphasised the need for an overarching institution which is able to group and coordinate all the current actors involved in the management of this hazard. While representatives of the civil society often would like to work more on the ›living with fire‹ idea, the institutions are seen to be slow on the uptake.

MORE INFORMATION

Supramaniam, M., Di Masso, M., García Sastre, A.: Lessons Learned and Challenges with Regard to Social Capacity Building: Heat-related Hazards – Droughts, Forest Fires and Heat Waves in Southern Europe. CAPHaz-Net WP7 Report, Barcelona 2011.

Available from
[http://caphaz-net.org/
outcomes-results](http://caphaz-net.org/outcomes-results)

HEAT WAVES are a largely underestimated hazard in terms of the damage they cause. In Catalonia, the 2003 heat wave resulted in the creation of an Action Plan (POCS). This plan responded to the recommendations of the Spanish Ministry of Health Care and Consumption and observed an inter-sectoral cooperation embracing the Catalan health care system, the Meteorological Service of Catalonia and the General Directorate for Civil Defence. However, it seems that a *clearer definition of roles and responsibilities* is required. The main point of concern for the workshop participants was risk perception issues (whether heat waves are perceived as hazards or ignored) and vulnerability (which focused on the position of people within their social networks and the relation of this position to their own vulnerability).

At the **BARCELONA WORKSHOP**, participants furthermore referred to the emotional consequences of the hazards, with many of the effects discussed being at the individual and community level. However, many of the conflicts surrounding *what is being done* centred on a discussion over information provision and the rights of access to a resource. Although most of the effects pointed at the individual and society levels, participants found improvement aspects were better handled at an institutional level. To better understand *how to work together*, the discussion revolved around the division of responsibilities, communication practices and cross-cutting themes among different administrative levels.

Overall assessment of the institutional framework of heat-related hazards in Catalonia


HAZARD	CHARACTERISTICS	STRENGTHS	WEAKNESSES
DROUGHTS	<ul style="list-style-type: none"> Multiple actors, networks and partnerships. Public participation processes. Multi-scale governance. 	<ul style="list-style-type: none"> Decentralised management at the different scales. Overall institutional structure: Catalan Water Agency. Inter-institutional commission. Risk communication and risk education. 	<ul style="list-style-type: none"> Inter-sector collaboration. Reinforcement of participatory processes. Emergency management. Connection between stakeholders.
FOREST FIRES	<ul style="list-style-type: none"> Guided by EU directive. Multiple actors, networks and partnerships. Multi-scale governance. 	<ul style="list-style-type: none"> Decentralised management. Transition towards a risk management. 	<ul style="list-style-type: none"> Complex institutional structure. Lack of an overall coordination. Overlapping of functions. Emergency management. Connection between stakeholders.
HEAT WAVES	<ul style="list-style-type: none"> Local scale governance. 	<ul style="list-style-type: none"> Inter-sector collaboration. 	<ul style="list-style-type: none"> Allocation of institutional responsibilities. Raising awareness. Emergency management. Connection between stakeholders.

Source:
CapHaz-net
WP 7 report

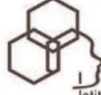
During the workshop, several weak points were identified in the way heat-related hazards are handled in Catalonia, which suggest some recommendations:

- Risk communication and education need to be improved in order to encourage social capacities and awareness. Communication can be improved by enhancing transparency to create mutually trustful relations.
- Instead of aiming at a one-size-fits-all approach to encouraging social resilience for heat-related hazards, the different social, geographical, institutional and temporal contexts of each hazard need to be recognised also in the management of heat-related hazards.
- There is a need to view disturbances and risks as part of the natural processes and dynamics of socio-ecological systems. A culture of coexistence needs to be built and a holistic approach looking at the interactions between human and environmental / ecological systems facing risks must be adopted.

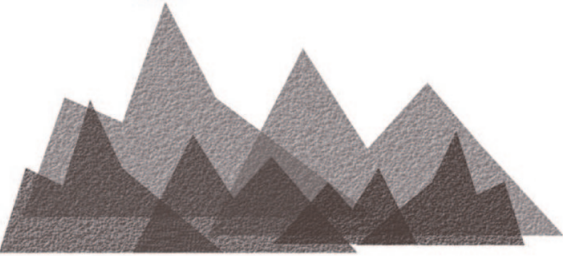
Current policies to handle natural hazards are mostly reactionary. Alternative risk management should put the emphasis on the initial stages of the causality chain, as well as on a movement away from ideas of risk mitigation, prevention or management to a philosophy of risk governance. Both these aims entail improved institutional coordination and the involvement of different stakeholders.






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ISIG
Istituto di Sociologia
Internazionale di Gorizia



**REGIONAL WORKSHOP:
SOCIAL CAPACITY BUILDING
FOR ALPINE HAZARDS**

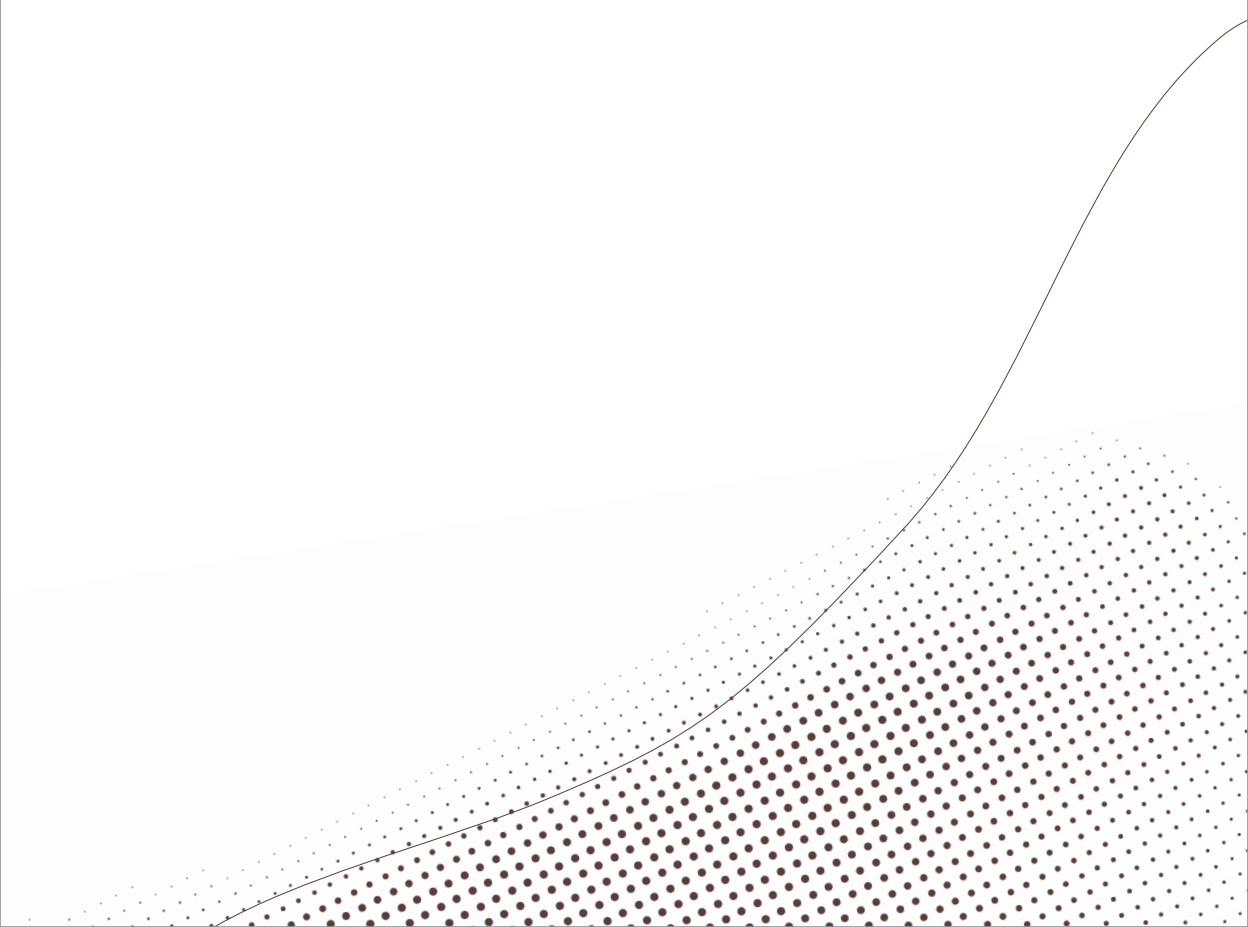


Gorizia (Italy), 4-5 April 2011
Conference Hall "Conte G. Della Torre"
Via Carducci, 12 - Gorizia

05 Announcement of
the Gorizia Workshop
(April 2011)

5 The Gorizia workshop on alpine hazards: the importance of linking theory with practice

The Gorizia workshop was mainly interested in the relevance and applicability of the capHaz-Net typology of social capacities to natural hazard management practices. To this aim, for the two alpine case studies Malborghetto-Valbruna (Friuli Venezia Giulia Region) and Vipiteno /Sterzing (Trentino Alto Adige Region) a Strengths – Weaknesses – Opportunities – Threats (SWOT) analysis was prepared by the workshop organisers and revised by the participants. As an example, the following table summarises the main strengths, weaknesses, opportunities and threats for one area of investigation.



SWOT Analysis Malborghetto-Valbruna

	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
KNOWLEDGE CAPACITIES	<ul style="list-style-type: none"> · Good knowledge of the territory and its environmental signs by some residents 	<ul style="list-style-type: none"> · Loss of traditional knowledge by the majority of the residents 		
MOTIVATIONAL CAPACITIES	<ul style="list-style-type: none"> · Higher sensibility of residents towards flood risk after events of 2003. · Those who live in areas at higher risk, also feel more endangered 	<ul style="list-style-type: none"> · Low level of adoption of private preparatory measures · Low evaluation of personal preparedness 		
SOCIAL NETWORKS	<ul style="list-style-type: none"> · Good volunteer network, with a long tradition (100 years) and young new members 	<ul style="list-style-type: none"> · Low level of trust towards local authorities 	<ul style="list-style-type: none"> · International network with fire brigades from Austrian Carinthia (yearly competitions) and volunteers from Slovenia 	
FINANCIAL CAPACITIES			<ul style="list-style-type: none"> · Regional and national funds for implementation of risk mitigation measures · Funds from INTERREG IV Italy-Austria programme 	<ul style="list-style-type: none"> · Delayed allocation of funds for reconstruction and mitigation measures
GOVERNANCE CAPACITIES	<ul style="list-style-type: none"> · Local activism for implementation of higher security standards · Several risk mitigation projects presented by the regional civil protection, also taking into account local needs 	<ul style="list-style-type: none"> · Disagreement among citizens about risk mitigation options · Difficulties in cross-scale cooperation and coordination between the organisations 		<ul style="list-style-type: none"> · Contrast with regional authority on the allocation of responsibility over flood protection works

Source: adapted from capHaz-net WP 8 report

Regarding **KNOWLEDGE CAPACITIES**, modern societies have progressively created the illusion of the possibility of ›zero risk‹. Due to trust in technology and science, the local population's feeling of safety is therefore relatively high. As a result, risk awareness and ›local knowledge‹ (that is, knowledge based on experience, observation, understanding nature and transmitting the practices onto the next generations) concerning the territory and previous hazardous events may decrease, leading to the disappearance of habits and behaviours to be adopted in case of disaster as well as appropriate behaviours in a vulnerable territory. Therefore, in terms of social capacity building, workshop participants deemed the ›rediscovery‹ of historical and local knowledge as well as risk education as very relevant factors to strengthen communities facing natural hazards.

The relevance of **SOCIAL NETWORKS** was an issue that was particularly discussed in the workshop. Volunteer civil protection networks are an historically, well rooted reality in the areas of the former Austro-Hungarian Empire. Slovenia, northern Italy and the Austrian region of Carinthia have strong volunteer networks in risk management (Civil Protection in Italy, fire brigades and mountain rescue services in Slovenia and Austria) but also cooperative trans-alpine networks. The volunteers' corps have the characteristics of an institutionalised body for risk and especially emergency management. Volunteers represent a major link between the professional operators and the local communities. They are prepared in case of emergency and also have a strong presence in these areas. Thus, they are a major factor of community resilience but also an important source of the networks at the local and regional levels.



06 Rockfall in the Alps (2005)

GOVERNANCE CAPACITIES discussed mostly related to the time period between a disastrous event and the implementation of risk mitigation measures. It was highlighted that the involvement of the public in the processes of mitigation and prevention is stronger if this phase coincides with the *phase of reconstruction*. However, this is conditional on the situation. In fact, involvement and participation of the local population may work, provided that they are given the possibility to really decide and choose – beginning with the choices related to the immediate aftermath of a disastrous event (e. g. recovery in shelters vs. moving somewhere else) and ending with decisions about reconstruction options (e. g. relocating and building a new town vs. re-building on the same place). Further successful experiences of public involvement were reported with regard to risk assessment and mapping.

Local mediators emerged as an important means of connecting local communities and natural hazard management experts. In northern Italy and Slovenia this expertise is embedded in the local culture, as an expression of the above mentioned volunteers of civil protection. In other contexts such mediators are intentionally created, as in the UK (‘local champions’) and in Switzerland (‘local natural hazard advisor’). However, also in countries with a strong presence of volunteers, mediators of a different nature are needed to bridge the gap between the different domains of knowledge pertaining to the many actors involved in the management of natural hazards.

Moreover, **FINANCIAL CAPACITIES** were considered as being closely related to governance capacities. The distribution of responsibility, given by the institutional framework, determines the organisation that has to carry the financial burden of natural hazard mitigation and prevention. Clearly defined roles and responsibilities are of great importance, on the part of both the public authorities and the population (according to ownership of land and building and to the running of economic activities). Distribution of responsibility is also a major issue for what concerns insurance schemes. In Switzerland, for example, where such instruments are mandatory, more responsibility is formally allocated to the citizens. On the other hand, a mandatory insurance might also have the effect that citizens feel less responsible for risk management issues. This issue requires more in-depth research.

The **GORIZIA WORKSHOP** particularly highlighted the importance of the role of volunteers in disaster risk management as well as the need for local facilitators to improve the dialogue and reciprocal understanding between the experts and the general public. Public participation thus arose as a field full of potential for the enhancement of social capacities for alpine hazards. The workshop came to the following insights and recommendations:

MORE INFORMATION

Bianchizza, C., Scolobig, A., Pellizzoni, L., Del Bianco, D.: 2nd Caphaz-Net Regional Hazard Workshop: Social Capacity Building for Alpine Hazards, Gorizia (Italy), 4–5 April 2011. With contributions by M. Buchecker, M. Bründl and B. Комас. Caphaz-Net WP8 Report, Gorizia 2011.

Available from
[http://caphaz-net.org/
 outcomes-results](http://caphaz-net.org/outcomes-results)

- A need for improved communication and participation in decision-making between risk management experts and the public, as well as among other actors involved (authorities, operators, volunteers, stakeholders, etc.) was highlighted. The lack of cooperation was underlined as a concrete barrier for the formation of a ›culture of civil protection‹. The flow of information should be multi-directional and knowledge coming from different sources should be acknowledged and used.
- Additionally, communication and the local understanding of disaster reduction management actions can be improved by turning to local knowledge as a further source of information and insight into potential discrepancies between local and expert views. To this purpose the historical perspective can be used as a tool that can provide a valid understanding of past experiences, successes and failures and can help reinforce the memory of the past to strengthen present awareness.
- Numerous successful experiences of managing alpine hazards were reported during the workshop. There is a need of singling out and sharing institutional innovations (›good practices‹) among different countries (e. g. Swiss local ›hazard advisor‹; ›Friuli‹ model of recovery in the aftermath of the 1976 earthquake in Italy). This can be achieved by the strengthening of cross-country and within-country opportunities for collaboration.



07 A popular mode of public participation: informing residents about the new local flood wall in Grimma, Germany (2009)

6 The Leipzig workshop on river floods: involving interested parties in flood risk management

The findings from the Leipzig workshop showed that although participation is encouraged by the European Floods Directive it is not a new notion. It is rather already taking place at various levels to various degrees.

The European Floods Directive (2007/60/EC) encourages Member States to involve so called »interested parties« within the development of flood risk management plans (Article 10). However, the exact definitions and guidelines regarding how one should go about participation (i. e. who should be involved and how) are not clearly prescribed by the directive, instead this is a task of each Member State.



capHaz-Net understands participation as taking part, influencing, taking responsibility and empowerment of different interested parties. Interested parties and who they are was a topic of hot debate throughout the workshop. In the end, three parties were defined:

- professional public (experts, government representatives and practitioners),
- organised public (NGOs and interest groups) and the
- general public (residents and other individuals).

Participation is encouraged between those parties through different levels to different degrees:⁷

- **LEVELS OF PARTICIPATION:** policies and legislation, plans and programmes, and projects which all comprise of structural and non-structural measures.
- **DEGREES OF PARTICIPATION:** we distinguish between: I information provision, II consultation, III decision-influencing and IV inter-organisational exchange. While the first three categories focus on different intensities of interaction between decision-makers and the interested parties at risk, the fourth category relates exclusively to interactions between different authorities.

The chart (on p. 32) provides an example of the workshop's analysis of the current situation of participation in flood risk management in Central Europe.

⁷ See Arbter, K., Handler, M., Purker, E., Tappeiner, G., Trattnigg, R. (2007): The Public Participation Manual: Shaping the Future Together. Vienna (öGUT-News 1/2007).

The main findings from the Leipzig workshop include:

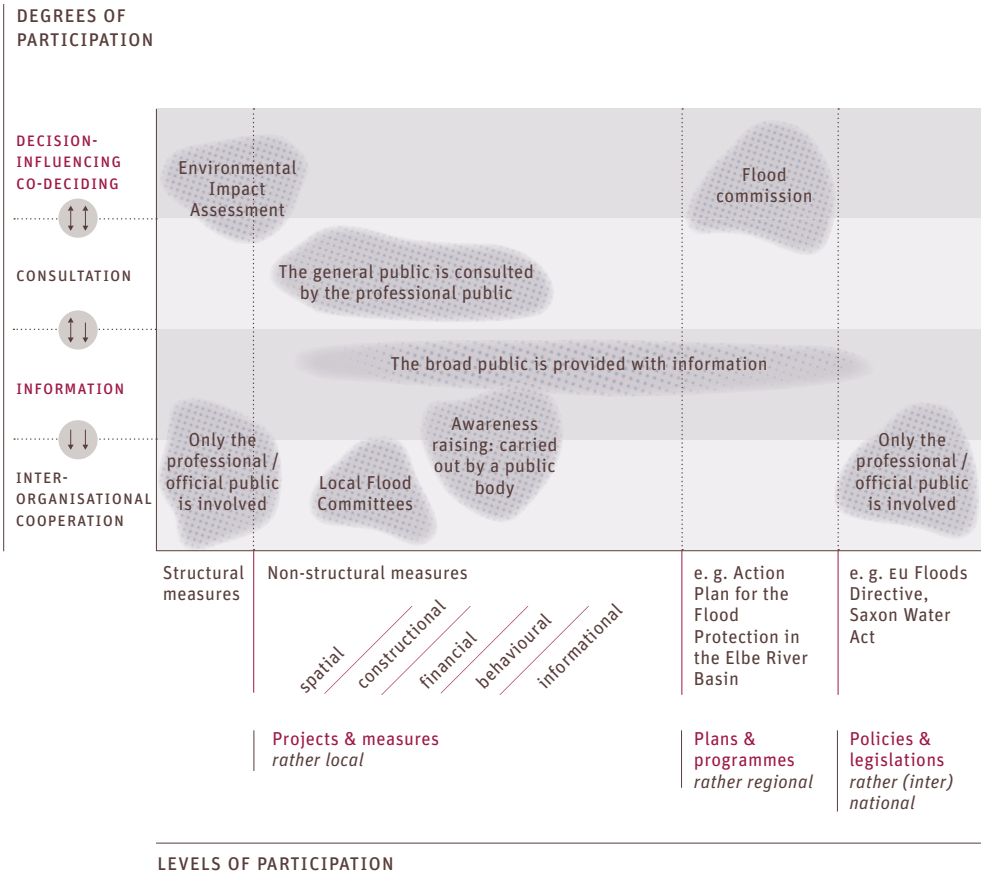
1. There are **TWO MAIN TYPES OF PARTICIPATION** in flood risk management: decision-making that involves the professional / organised public (inter-organisational collaboration / cooperation) and decision-making that involves the general public (public participation: mainly bottom-up, but may be initiated from higher levels too).
2. It was found that while **INTER-ORGANISATIONAL PARTICIPATION** usually takes place in the development of policies / legislations and plans / programmes, public participation is usually found at the project level, when main and strategic decisions have already been made.
3. At the **INTERNATIONAL AND NATIONAL LEVELS**, inter-organisational cooperation exists but there is very little participation in terms of consultation and co-decision making with other interested parties, such as the general or the organised public. Bottom-up approaches do exist within education programmes (e. g. in Poland).
4. It seems that at present the most intense participation with multiple actors occurs at the **PROJECT LEVEL** with respect to structural measures. However, we found that while there are certain trends, there is no one-size-fits-all approach to how this is or should be applied. Furthermore, on the levels of plans, programmes, policy and legislation, although participation is not explicit, projects do not evolve unaided. They are products of previous work, networks and experience.

MORE INFORMATION

Begg, C., Luther, J., Kuhlicke, C., Steinführer, A.: Participation in Central European Flood Risk Management: Social Capacity Building in Practice. CAPHAZ-Net WP9 Report, Leipzig and Braunschweig 2011.

Available from
[http://caphaz-net.org/
 outcomes-results](http://caphaz-net.org/outcomes-results)

Chart developed during the Leipzig workshop: levels and degrees of participation in the Czech part of the Elbe catchment



Source:
capHaz-net
WP 9 report

5. **CONSULTATION** seems to be a popular mode of participation and largely exists in the form of information provision and a time frame within which the public (organised and general) can react in writing. For example, each country mentioned the existence of an Environmental Impact Assessment (EIA) which is required before any large constructions and allows interested parties to make comments in writing. However, only Austria mentioned having two consultation periods; one at the scoping stage and one after the plans have been drafted. The other Central European countries considered mentioned that this consultation only exists in the latter stage.

The workshop clearly showed that **SOCIAL CAPACITY BUILDING** also needs to take place at the level of the organisations in charge of flood risk management. At this stage these organisations do not have a clear understanding of how to organise the involvement of interested parties. The Leipzig workshop itself offered a forum for horizontal exchange and learning. There is a need for more such forums. However, local and regional participation cultures in the different catchments and countries also point to different traditions of either more top-down intervention or more participatory bottom-up approaches. This will not change overnight – it will rather require time and resources as well as an acceptance of participation and the benefits that it can bring into the decision-making process.

The following **INSIGHTS AND RECOMMENDATIONS** arose from the discussions during the Leipzig workshop:

- Participation is already relevant in the context of flood risk management. It can help to build trusting relationships, encourages learning and sharing of experiences. Moreover, the different modes of participation identified improve relationships and achieve acceptance or consensus.

- Defining and identifying »interested parties« that are meant to participate in the development of flood risk management plans is a challenging and at the same time important task. This endeavour should provide a broad overview of the main actors and their interests and relationships. The main questions to be clarified in the course of each participation process are: Who are the interested parties, how and when to involve them, who defines the type of participation, and what are the rationales for a participation process?
- Not all interested parties can or should be involved at every level, particularly for larger river catchments. Rather, a two-step approach is suggested. On the catchment level general frames should be developed outlining the overall goals of a flood risk management plan and defining specific roles and responsibilities. This would mostly take place through inter-organisational participation as well as by involving representatives of the organised public. On the local level the general public should participate in the planning and development of measures by including local needs, views and expectations. In other words, representatives of the professional public should act as facilitators while the public should have more freedom to co-design their own solutions.
- It was also highlighted that the role of each actor in the decision-making process and therefore the power they possess is of importance and must be taken into account. There are the people with decision-making power (elected officials) and the people who are interested in protecting their interests (e. g. NGOs). It is important to be able to deal with such different actors and their different interests.

capHaz-net explores shifts in flood risk governance in England

Taking into account the findings of the capHaz-net project a study focusing on shifts in flood risk governance is being conducted in England. This study explores the ways in which responsibilities relating to flood risk planning and management have been shifted from the state to the local level and what this means for those charged with responsibility. It also considers how the consequences of climate change and the uncertainties associated to it are included in flood risk management and planning processes. This study has a particular interest in gaining an understanding of the role of public participation in flood risk planning. The results will feed into the development of the final overall recommendations of the capHaz-net project finalized until end of May 2012.

Chloe Begg and Christian Kuhlicke would like to take the opportunity to thank all the people who supported the study by providing insights and information about their daily duties and responsibilities.



08 Flood marker in Bad Schandau, Germany (2009)

Communication, context, governance and participation were highlighted by all workshops as being fundamentally important factors in addressing future disaster risk management and therefore, building social capacities.

7 Some overall insights and recommendations

Improving communication between actors was highlighted in all workshops as being a key area on which to focus future improvements in disaster risk management:

- **DEALING WITH INSTITUTIONAL FRAGMENTATION:** It is important that the roles and responsibilities of different organisations working on the management of the same hazards are clear and that there is communication between them.
- **NEED FOR FACILITATION BETWEEN DECISION-MAKERS AND THE PUBLIC:** In order to increase dialogue between decision-makers and the public, facilitators could be employed.
- **NEED TO IDENTIFY INTERESTED PARTIES:** Not everyone can be involved in the decision-making process. It is important to identify which actors should be involved and when, at what stage of the decision-making process and to what end.

During the final months of the project, CapHaz-Net will produce some overall recommendations on how to build social capacities for natural hazards. The results will be made available on our project website www.caphaz-net.org in summer 2012.

We would like to take the opportunity to thank all participants of our three Regional Hazard Workshops.

8 More about capHaz-Net

capHaz-Net is a research project running funded by the European Commission's 7th Framework Program between June 2009 and May 2012. At the same time, it is a project-crossing network of social scientists dealing with the social dimensions of so-called ›natural‹ hazards. The project consortium reviews and synthesises previous and on-going research from across Europe as well as related practices. While doing so, capHaz-Net permanently reflects upon transparent criteria for these evaluations. The project's methodology focuses furthermore on the interaction of different stakeholders. Researchers, practitioners and policy-makers are given the opportunity to contribute to the project's outcomes with their expertise by attending the project's workshops and providing feedback on the research reports.

Research outcomes (by March 2012)

10 research reports

- WP 1 report ›Social capacity building for natural hazards‹
- WP 2 report ›Risk governance and natural hazards‹
- WP 3 report ›Risk perception and natural hazards‹
- WP 4 report ›Social vulnerability and natural hazards‹
- WP 5 report ›Risk communication and natural hazards‹
- WP 6 report ›Risk education and natural hazards‹
- WP 7–9 reports (see the references in this Policy Brief)
- WP 10 report ›Knowledge inventory. State of the art of natural hazards research in the social sciences and further research needs for social capacity building‹

Selection of journal papers

- Kuhlicke, C., Steinführer, A., Begg, C., Bianchizza, C., Bründl, M., Buchecker, M., De Marchi, B., Di Masso Tarditti, M., Höppner, C., Komac, B., Lemkow, L., Luther, J., McCarthy, S., Pellizzoni, L., Renn, O., Scolobig, A., Supramaniam, M., Tapsell, S., Wachinger, G., Walker, G., Whittle, R., Zorn, M. (2011): Perspectives on social capacity building for natural hazards: Outlining an emerging field of research and practice in Europe. *Environmental Science and Policy* 14 (7), 804–814.
- Wachinger, G., Begg, C., Renn, O., Kuhlicke, C. (in revision): The risk perception paradox: implications for governance and communication of natural hazards. Submitted to *Risk Analysis*.

2 Policy Briefs

- Policy Brief N° I ›Introducing capHaz-net to a Wider Audience‹ (March 2010)
- Policy Brief N° II ›On the Shoulders of Giants: A Summary of capHaz-net's Initial Findings‹ (March 2011)

8 workshops with ca. 170 scientists and practitioners from 18 European and non-European countries

3 common conference panels

Upcoming events

- European Geosciences Union, General Assembly 2012, Vienna, 22–27 April 2012: session on ›Social capacity building: an emerging field of research and practice in Europe‹ (organised and chaired by capHaz-net)

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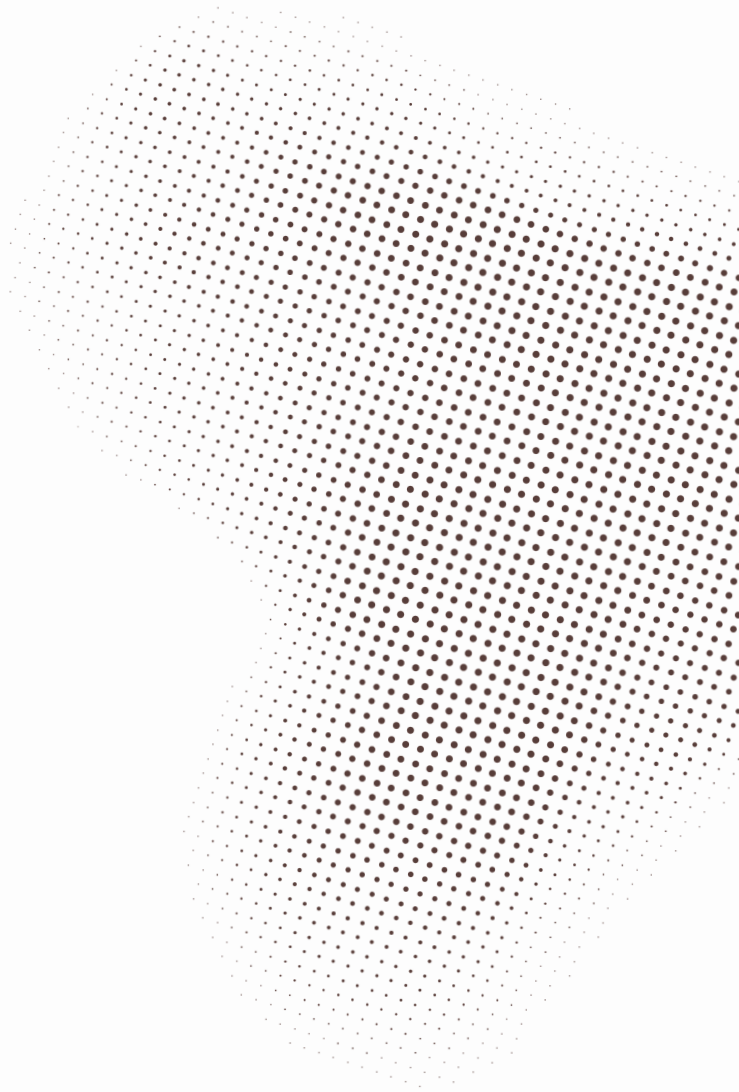
N° 04 ICTA Barcelona, capHaz-Net consortium, SPAIN

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N° 06 BMLFUW – die.wildbach, AUSTRIA

N° 07 André Künzelmann, UFZ Leipzig, GERMANY

N° 08 Annett Steinführer, capHaz-net consortium, GERMANY



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for Natural Hazards
Toward More Resilient
Societies